THE IMPACT OF SELECTED INCOME TAX PROVISIONS ON AGRICULTURAL INVESTMENTS AND MANAGEMENT

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A Paper Presented at

The Annual Meeting of The
American Agricultural Economics Association

Carbondale, Illinois
August 16, 1971

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INTRODUCTION

Federal income taxes are receiving increased attention in farm planning and operating decisions. Expanded incomes from larger operations combined with more complex tax laws enable many farmers to profitably utilize the services of experienced tax consultants. Maximum returns from tax planning are commonly based on the development of a tax strategy with a planning horizon of several years. This strategy, tailored to individual farm goals, considers accounting methods, investment timing, alternative sources of capital, and the size and combination of enterprises.[1/] Once implemented, it is reinforced with careful record keeping, selection of depreciation methods, timing of purchases, full deduction of expenses and timing receipt of income. This paper will concentrate on income tax provisions which affect farm tax planning and strategy.

Several studies have examined the impact of various income tax provisions on agriculture.[2/] But changes in the interpretation of existing tax laws and new legislation can alter the conclusions of these studies. The Tax Reform Act of 1969[3/] has a number of implications for income tax planning. Recent changes in tax provisions especially the Reform provisions are the focus of this paper. The majority of discussion pertains to:

1. The impact of new tax provisions on tax sheltered investments in agriculture, especially in breeding livestock, orchard development and land improvement.

2. The impact of changes in tax rates on economies of scale and farm size.

Agricultural Economists can contribute to the development of income tax policy effecting agriculture. The paper concludes with a short discussion of some possible research areas in taxation.

TAX REFORM PROVISIONS

Tax Reform Act provisions relating to agriculture focus on the problem of tax shelter investments. Six out of eight agricultural provisions are concerned with tighter control over the tax treatment of farm losses.[4/] Agricultural tax loss provisions include: (1) the establishment of an Excess Deductions Account (EDA) to recapture farm losses used to offset nonfarm income when farm property is sold, (2) the recapture of soil and water conservation expenditures upon sale or disposition of land, (3) recapture of excess livestock depreciation, (4) extension of the holding period for livestock to qualify for capital gains treatment, (5) prohibition of the tax-free exchange of livestock of different sexes, and (6) capitalization of the planting and development costs for citrus groves.[5/]

There are also a number of general Tax Reform provisions of interest to farmers. Among the more important for farm tax planning are: (1) repeal of the investment credit, (2) changes in maximum capital gains tax rates, (3) limitations on the deduction of interest, (4) a maximum 50 percent rate on earned income, and (5) adjustments in personal exemptions, standard deductions and certain tax rates. Let's turn now to an examination of the impact of the various Tax Reform provisions on tax shelter investments in agriculture.

TAX SHELTER INVESTMENTS

Conversion of ordinary income to capital gains is the goal of tax sheltered investments whether they be in apartment houses, oil and gas exploration, or

agriculture. In agriculture this conversion is usually accomplished through the current deduction of what are essentially capital expenses. When the assets are later sold they have a zero basis and all income is treated as capital gains. Thus, capital gains treatment and cash accounting are the foundation for tax shelter investments in agriculture. These investments could be effectively curbed by revoking the right of farmers to use cash accounting and deduct certain capital expenditures. However, the political and practical problems of this approach to reform led to its rejection and the passage of provisions which seek to preserve cash accounting for farmers while limiting tax motivated agricultural losses.[6/] These Reform provisions rely primarily on the recapture features of the EDA, recapture of livestock depreciation, recapture of conservation expenditures, and capitalization of citrus grove development costs. As will be shown, these provisions have mixed effects.

Investments in Beef Breeding Cattle

Raising beef breeding cattle, one of the most popular agricultural tax shelters, was an obvious target of Tax Reform with four of the eight provisions applying to breeding livestock. Soon after passage of the Act, Black Watch Farms, Inc., a popular and well-publicized registered Angus management firm, filed for court protection under bankruptcy laws.[7/] It appeared that tax sheltered investments in breeding cattle had been dealt a devastating blow. Examination of a budgeted example provides an estimate of the impact of the livestock provisions.

A previous budget for a tax sheltered investment in a 100-cow beef breeding herd is revised to show the impact of tax reform [4]. Recapture of excess depreciation and the one-year increase in holding period to qualify for capital gains are the only provisions which require revision of the budget. These provisions result in a redistribution of income between capital gains and ordinary

income categories. Capital gains decrease $13,752 after reform with the recapture provisions accounting for $2,829 of the decrease and the increasing holding period accounting for the remaining $10,923 (Table 1). The entire $13,752 is treated as ordinary income after reform. Before tax reform all taxable income is capital gains, after reform the taxpayer also has taxable ordinary income of $8,919 in year six of the investment.

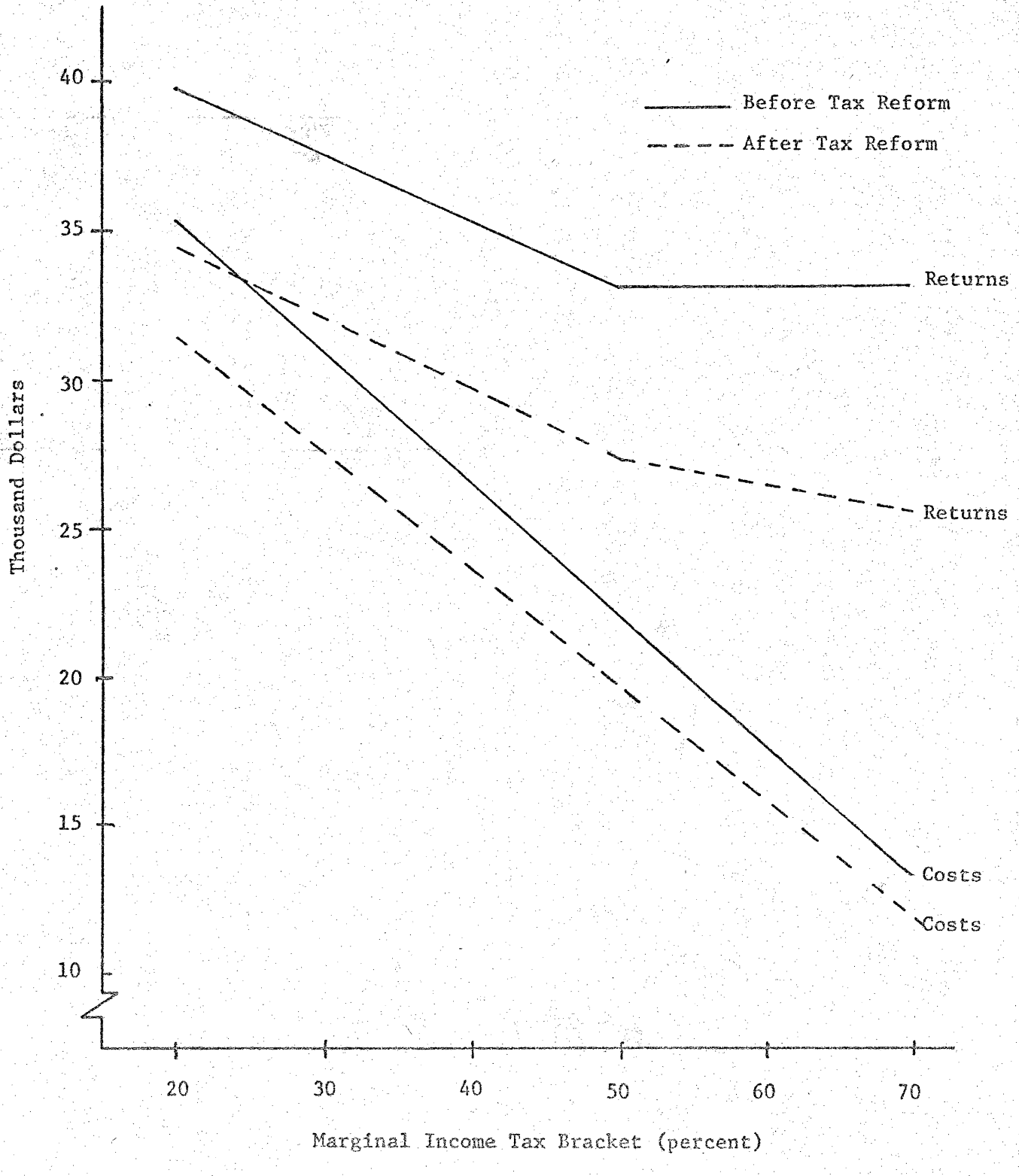
The annual tax consequences of the investment for a taxpayer in the 70 percent marginal income tax bracket are shown for the before and after reform situations (Table 1). A comparison of actual gains for this taxpayer reveals a decrease in returns of $6,189 ($19,888 - $13,699) attributable to tax reform.[8/] This 31 percent decrease in after-tax returns is applicable to taxpayers in other brackets. Computations for all tax brackets are illustrated by Figure 1. Redistribution of income for tax purposes results in lower after-tax costs, lower after-tax returns and decreased actual returns after tax reform. Annual losses are not large enough to create an EDA and capital gains are not large enough to raise the maximum tax rate above 25 percent.[9/] Figure 1 shows that taxpayers in all tax brackets could expect positive returns from the budgeted tax shelter investment. As before reform, the tax advantage is greatest for taxpayers in the highest brackets. Some orchard development investments demonstrate similar tax advantages.

Investments in Orchard Development

Citrus bore the brunt of Tax Reform applicable to orchard development. The EDA and increased capital gains tax rates will effect all large-scale orchard development but capitalization of planting and development costs destroys tax shelter features of orchard investments of any scale. Briefly, the citrus provision requires that all expenditures for purchase, planting, cultivation, maintenance or development of any citrus grove within four years after

FIGURE 1

After-Tax Costs and Returns for Investment in a 100-Cow Breeding Herd by Marginal Income Tax Bracket of the Investor, Before and After the Tax Reform Act of 1969



planting must be capitalized. An exception is made for replanting required because of casualty loss. These provisions were subsequently extended to almonds, another popular tax shelter. The capitalization rule applies to citus trees planted in taxable years beginning after December 31, 1969 and to almond trees planted in taxable years beginning after December 29, 1970.[10/] Developers of other orchard crops and vineyards are not presently affected by this provision.

A budgeted example for a five-year investment in establishing an almond orchard shows the impact of capitalization requirements and also demonstrates the magnitude of tax subsidies formerly available for citrus and almonds and still available for other orchard enterprises. The before reform tax treatment of development expenses continues to apply to all orchard crops except citrus and almonds.

The example is operated as a tax shelter investment, i.e., the orchard is planted and maintained by an orchard management company and the established orchard is sold at the end of five years. Cost calculations do not include interest charges and taxes on land.[11/] Planting costs of $120 per acre are capitalized and depreciated over an assumed bearing life of 30 years for both the before and after examples. Published data indicate that an established almond orchard was worth $475 in 1969.[12/] While this figure undoubtedly varies with location, age, and condition of the orchard, it is used for our calculations.

Before Reform: Prior to tax reform, the investor could deduct depreciation, cultural costs, interest, taxes, and management fees associated with establishing the almond orchard from other income. After the orchard was established (here, four years), the cost of planting the trees was depreciable over their useful life.

For the example in Table 2, an investor would have total costs of $735 per acre consisting of $120 for planting the orchard and $615 of other establishment costs during the first four years of the investment. As shown, ordinary income

TABLE 2

Tax Deductible Costs and Book Values for a Five-Year Investment in Almond Orchard Establishment, Before and After Tax Reform, San Joaquin Valley, California, 1969

Tax deductible costs of orchard establishment	Year				
	1	2	3	4	5
	dollars per acre				
Before Tax Reform					
Depreciation[a]					
Irrigation system	8	8	8	8	8
Trees	--	--	--	--	4
Cultural costs	105	117	142	187	230
Taxes	--	--	--	17	17
Interest[b]	22	22	21	20	20
Management	30	30	30	30	30
Total costs	165	177	201	262	309
Less crop income	--	--	--	190	422
Net costs or Income	165	177	201	72	113
After Tax Reform					
Depreciation					
Irrigation system	--	--	--	--	8
Capital account[c]	--	--	--	--	25
Cultural costs	--	--	--	--	230
Taxes	--	--	--	--	17
Interest	--	--	--	--	20
Management	--	--	--	--	30
Total costs	--	--	--	--	330
Less crop income	--	--	--	--	422
Net costs or Income	--	--	--	--	92
Book Values					
Land	1,800	1,800	1,800	1,800	1,800
Irrigation system	192	184	176	168	160
Trees	120	120	120	120	116
Capital account	285	462	663	735	710

[a]Straight-line depreciation based on a useful life of 25 years for the irrigation system and 30 years for the trees.

[b]Calculated at 7 percent of the book value of the irrigation system and the trees.

[c]Straight-line depreciation based on 30-year useful life for the trees.

Source: Based on budgeted costs for 80 acres planted 24' x 24', 75 trees per acre [17, p. 4].

of $113 per acre is realized in year five. Since the net costs of $165, $177, $201, and $72 can be deducted from other income during years one through four, the after tax cost of establishing the orchard will vary with the investor's tax bracket. An investor in the 70 percent tax bracket would have an after tax cost of only $305.50 (.3[$615] + $120 = $305.50) for example, while the cost to a taxpayer in the 20 percent bracket would be $612 (.8[$615] + $120 = $612). The variation in after tax costs of establishing one acre of almonds is shown by the straight line in Figure 2.

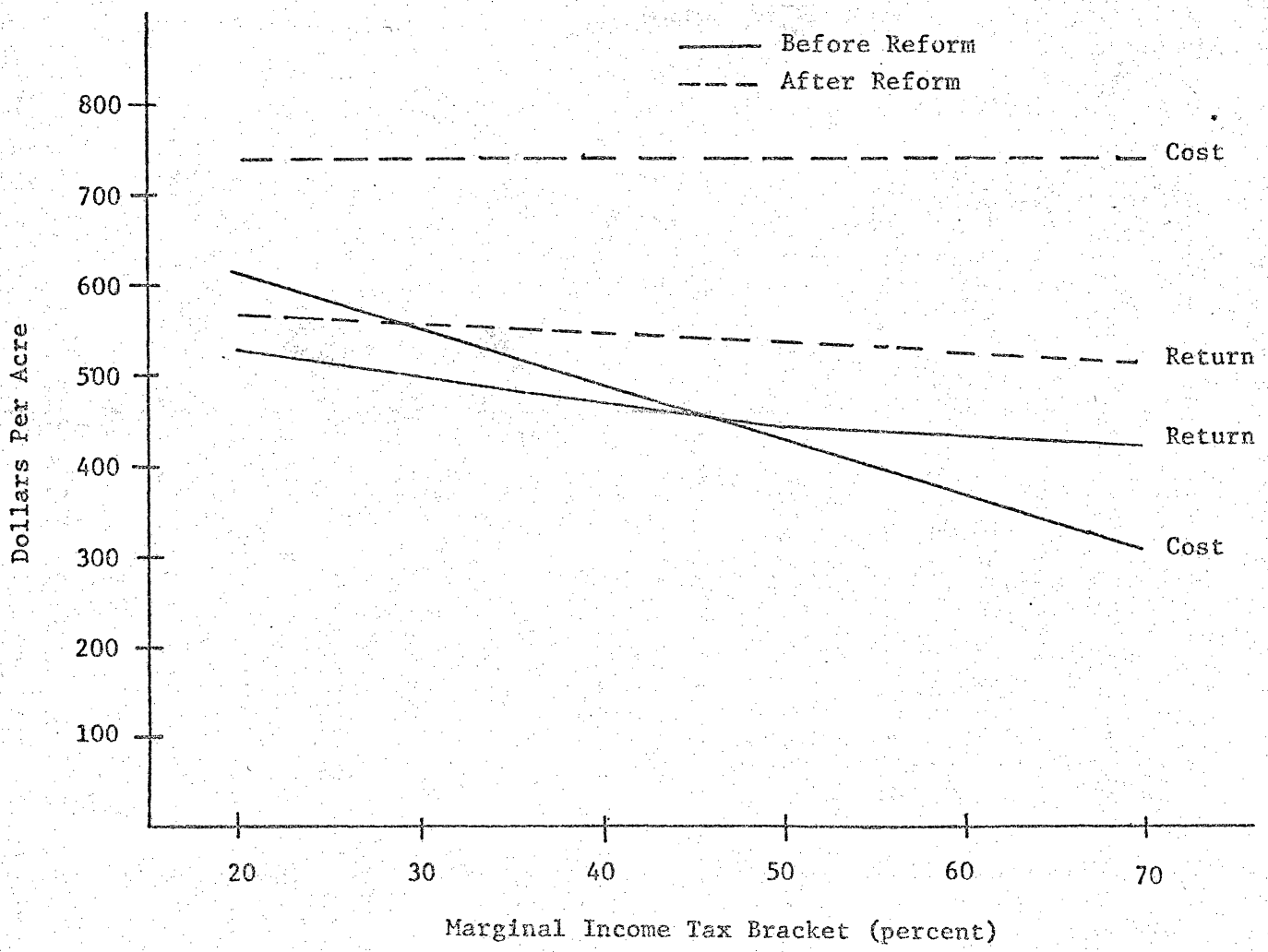
The investor has returns of $113 from the sale of the crop in year five and $475 per acre from the sale of the orchard. The $113 of crop income is subject to ordinary income tax rates while that portion of the value of the orchard which is capital gains is subject to the lower capital gains tax rate. Since the book value of the orchard is $116 per acre, the investor has capital gains of $359 per acre ($475 - $116 = $359). After tax returns will vary with the tax bracket of the investor. An investor in the 70 percent bracket would pay ordinary income taxes of $79.10 and capital gains tax of $89.75 to give an after tax return of $419.15 ($588 - $168.85 = $419.15). The after tax returns for an investor in the 20 percent bracket would be $529.50. After tax returns by marginal income tax bracket are shown by the kinked line in Figure 2.[13/]

Comparing after tax costs and returns before tax reform shows that taxpayers above the 48 percent marginal income tax bracket enjoyed positive after tax returns from the investment while incurring an apparent loss of $147 per acre. The budgeted profit for a taxpayer in the 70 percent bracket would be $114.65 per acre.

After Reform: Present tax laws specify that, for citrus and almonds, all establishment costs incurred during the first four years after planting must be capitalized. The After Tax Reform section of Table 2 shows that this results

FIGURE 2

After Tax Costs and Returns for Developing an Almond Orchard, Before and After Tax Reform, by Marginal Income Tax Bracket of the Developer, San Joaquin Valley, California, 1969



in no deductible expenses during this portion of the development period. After tax costs at the conclusion of each of the first four years are shown by the balance in the capital account. The total after tax cost of $735 per acre is the same for taxpayers in all tax brackets as shown by the upper dotted line in Figure 2.

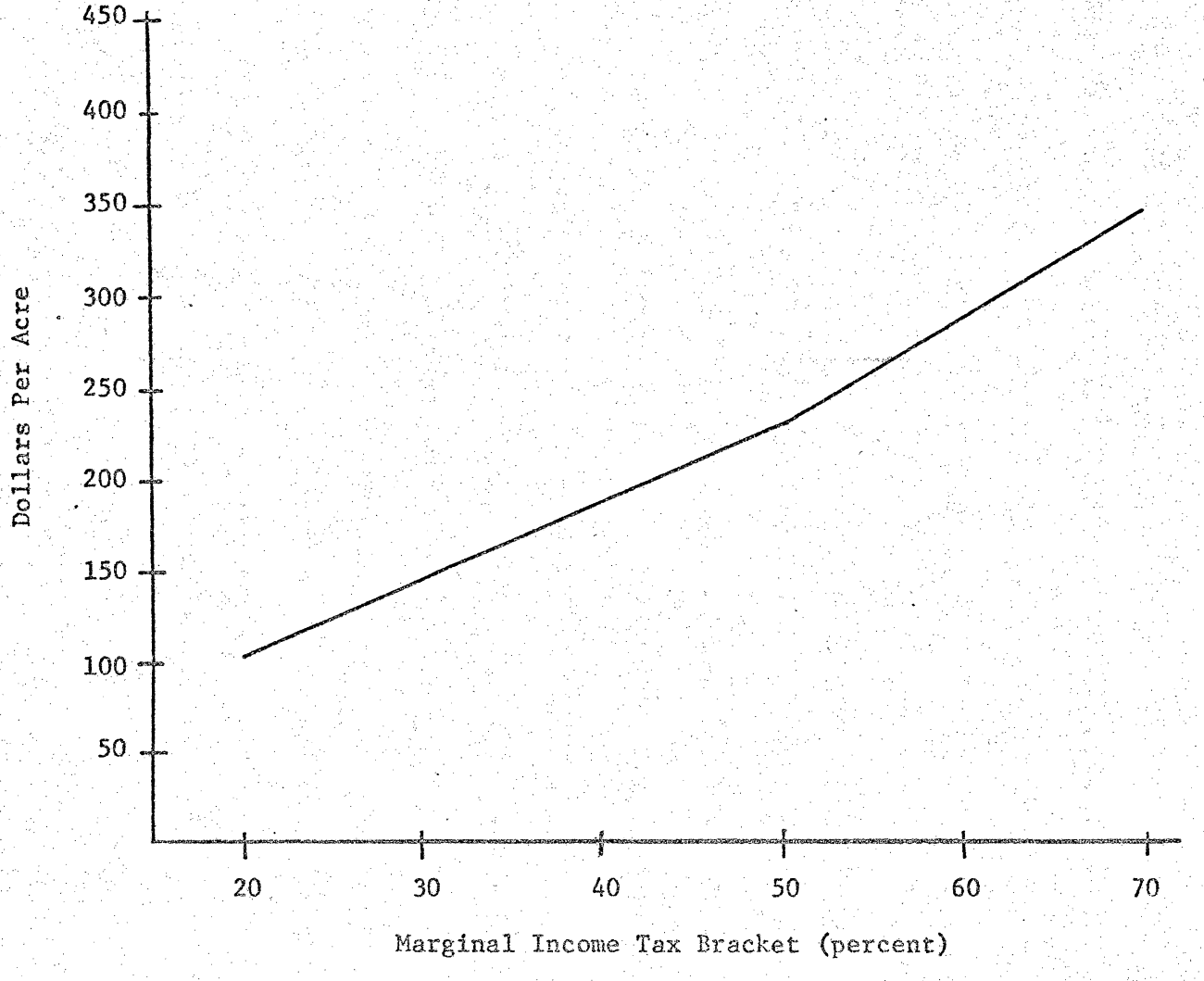
Revenue from the investment consists of ordinary income of $92 per acre in year five and $475 per acre from the sale of the orchard. Since the book value of the capital account is $710, the investor has no capital gain but instead a capital loss of $235 per acre ($710 - $475 = $235).[14/] After tax income will therefore be $475 plus ordinary income remaining after paying taxes on $92. After tax income declines with increases in tax bracket as shown by the lower dotted line in Figure 2. A comparison of costs and returns reveals that losses from the budgeted investment increase with increases in the investor's tax bracket.

The Excess Deductions Account and new capital gains tax rates would not affect the budgeted before tax reform results unless the development was quite large. The investor could have up to 124 acres without deducting more than $25,000 from nonfarm income in any one year and capital gains would be less than $50,000.

Development Subsidy: Comparison of the before and after tax reform results for almond orchard development as budgeted in Table 2 and illustrated in Figure 2 yields an estimate of the tax subsidy formerly available. The estimated subsidy is calculated by subtracting after tax reform profits (returns - cost) from before tax reform profits. The calculation for a taxpayer in the 70 percent bracket is $346.65 where before reform profit was $114.65 and after reform loss was $232 per acre. All investors were subsidized but the amount per acre increased rapidly with income tax bracket (Figure 3). While the amount of subsidy varies by crop because of differences in establishment costs

FIGURE 3

Before Reform Tax Subsidy to Almond Orchard Developers
by Marginal Income Tax Bracket of the Developer,
San Joaquin Valley, California, 1969



and values of standing orchards, the pattern illustrated in Figure 3 presently exists for orchards other than almonds and citrus.[15/] The advantage of currently deducting what are essentially capital costs is substantial, even for those orchard crops which are not profitable as a tax shelter investment.

Land Improvements

Some investors have used farm land as a tax shelter investment. Its profitability was typically based on the liberal use of prepaid interest, small equity and, often, soil and water conservation expenditures. It was common on some land sales to prepay interest for as much as five years and claim the entire interest payment as a deduction in the year in which it was paid.[16/] In a ruling effective November 26, 1968, the IRS announced that it viewed prepaid interest deducted for more than one year in advance as "materially distorting income" leaving it to the taxpayer to prove otherwise. This ruling was reinforced by the Tax Reform Act with a provision limiting the deduction of interest paid or accrued during a tax year. The new law limits interest deductions to 50 percent of the excess investment interest which is defined as investment interest in excess of $25,000 plus net investment income plus long-term capital gains.

Even though deductions on soil and water conservation and land clearing expenditures are limited, there was apparently some feeling that abuses were occurring.[17/] The Act provides for recapture of all these expenditures as ordinary income if land is sold within five years and partial recapture if land is sold sooner than ten years after the expenditures are made.

These changes in tax laws, as described above, restrict the use of farm land as a tax shelter. In fact, the provisions concerning recapture of conservation expenditures may go further than intended. It appears that, before reform, conservation was viewed as desirable and, therefore, subsidized. Now Congress seems to be saying that conservation is good only if one is willing to

keep the land for at least ten years. It is difficult for one to correlate the "good" derived from conservation activities with the period of land ownership. One might question the subsidy on efficiency but time of ownership would not enter the analysis.

ECONOMIES OF SCALE AND FARM SIZE

Dean and Carter analyzed the impact of progressive income taxes on economies of scale and farm size for large-scale farms such as found in California [10]. Their theoretical framework and empirical application demonstrated that if some of the costs included in cost curves are not tax deductible (such as opportunity cost interest), inclusion of the income tax as a cost will reduce the optimum level of output. The advantage of expansion through the use of borrowed capital was also demonstrated. Almost ten years have elapsed since their analysis was performed and a number of changes in tax rate schedules, personal exemptions and standard deductions have occured. As shown in Figure 4, there has been a substantial reduction in average federal income tax rates since 1962. The maximum marginal tax rate of 91 percent of income for amounts over $400,000 in 1962 is reduced to 70 percent now. Thus, the average tax rates shown in Figure 4 will spread slightly for incomes over $400,000 with a maximum difference of 21 percent. The maximum tax rate of 50 percent on earned income will serve to further reduce average taxes for some high income individuals.[18/]

An empirical cost function for large field-crop and vegetable crop farms in the Imperial Valley, California is used to demonstrate the changing impact of federal income taxes on optimum farm size.[19/] All cost calculations are for an owner with 100 percent equity. The total cost curves in the upper portion of Figure 5 include income taxes and an opportunity cost for capital at a 3.5 percent tax-free rate.[20/] Net returns to management is the difference between total revenue and total costs. This analysis differs from the original in that

FIGURE 4

Average Effective Federal Rates of Taxation on
Taxable Income, 1962 and 1972

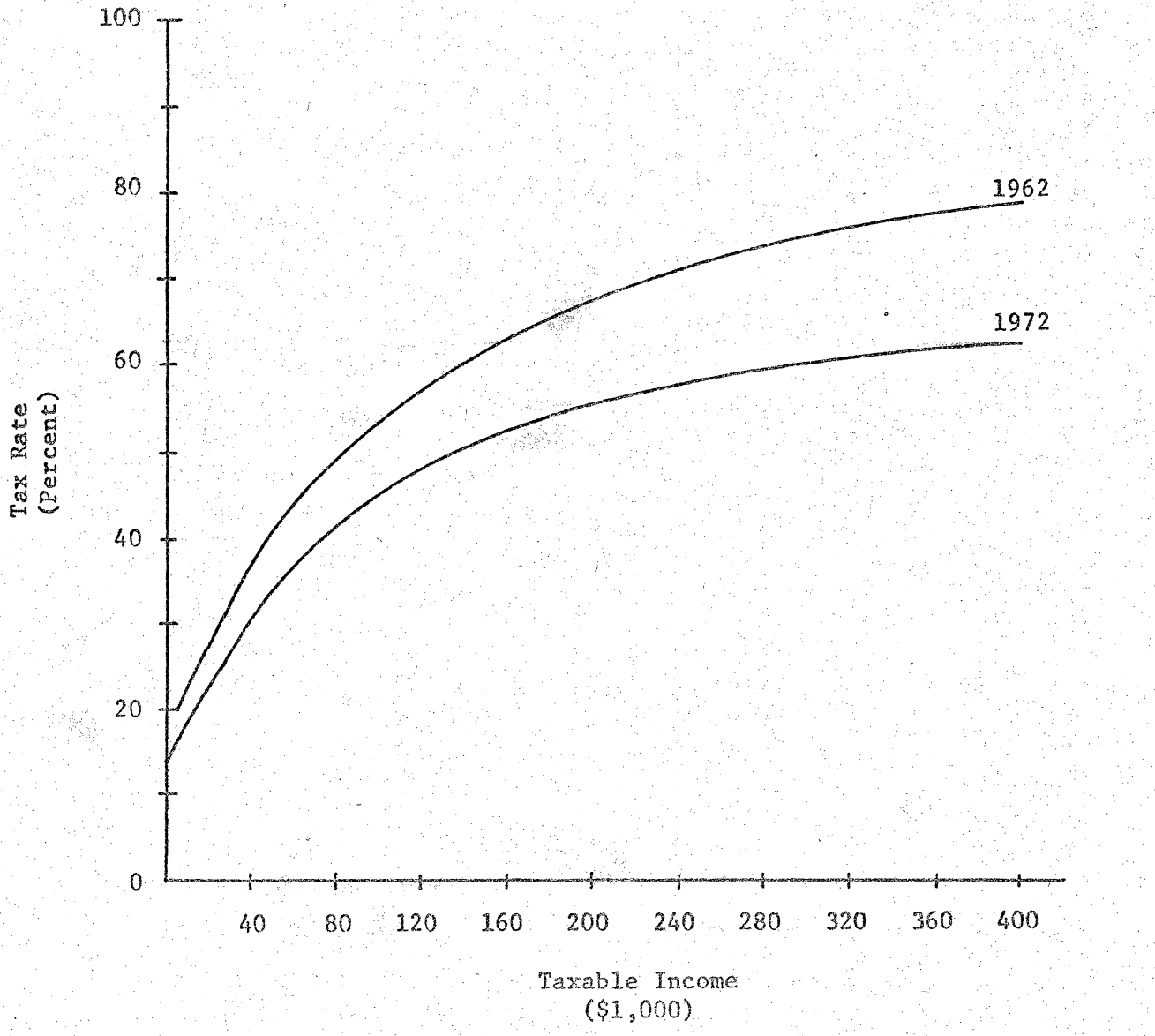
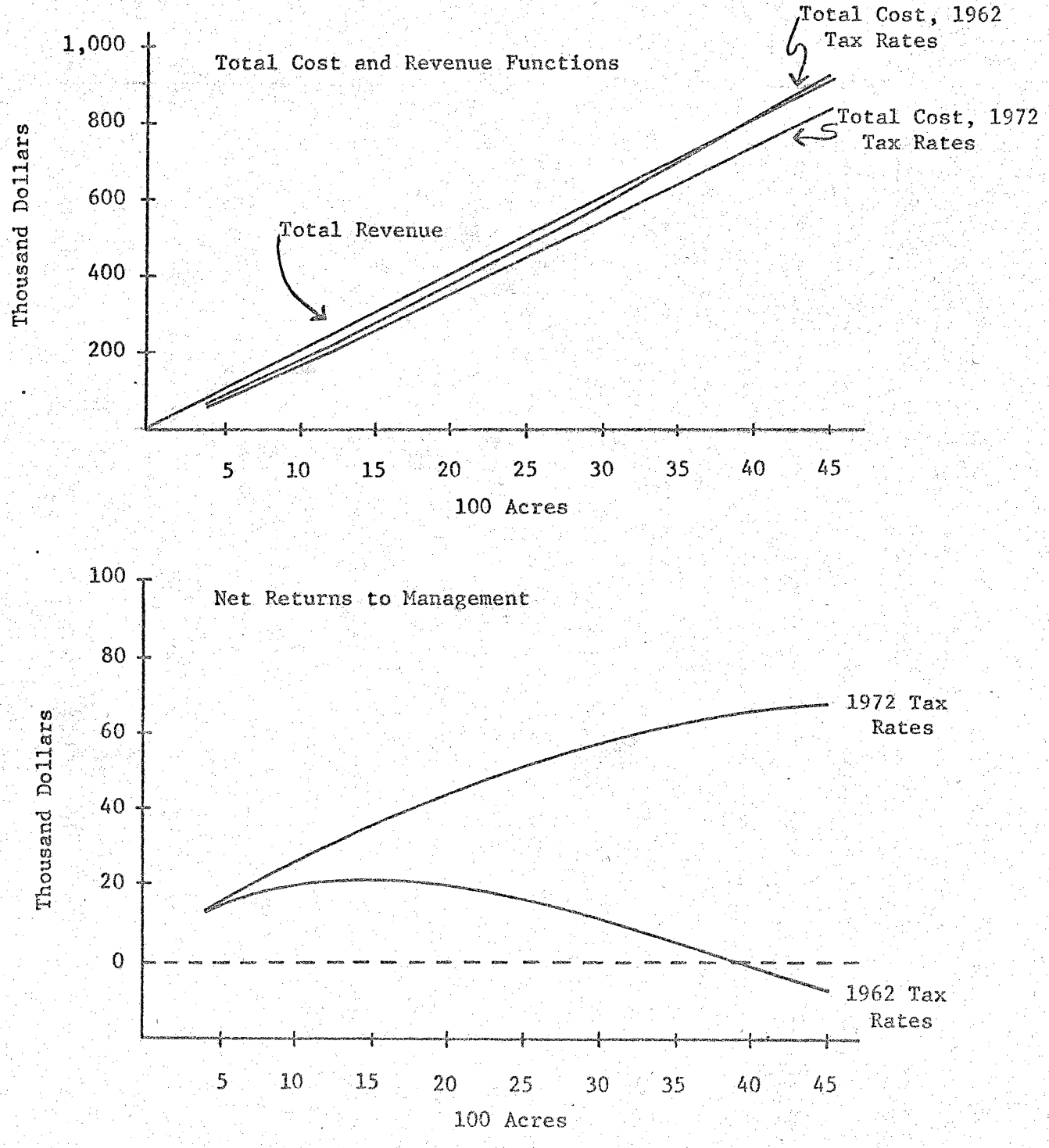


FIGURE 5

Empirical Cost and Revenue Functions and Net Returns
To Management for Federal Income Tax Rates
Existing in 1962 and 1972



Specifications for the cost and revenue functions are in [6].

state income taxes are not included in the calculations. Their inclusion would not change the conclusions.

Given 1962 tax rates, net returns to management are maximized by expanding farm size to the 1,250-1,750 acre range and then investing any excess funds in tax-free bonds rather than in farming (Figure 5). The decrease in tax rates, fully effective in 1972, changes this conclusion. Within the range of farm sizes considered, the operator maximizes management returns by expanding farm size to the maximum (4,500 acres). Expansion through the use of borrowed capital remains an attractive method of financing growth. The maximum tax on earned income tends to increase the advantage of debt.

This analysis considers only the effect of changed tax rates, it does not represent actual costs and returns existing today. Changes in prices of inputs and output combined with new technology have undoubtedly shifted the basic cost and revenue functions over time.[21/] But, the conclusions with regard to changes in tax rates hold. Reduced marginal and average tax rates increase after-tax returns to management and increase optimum farm size. Debt financing continues to be an attractive method for expansion.

SOME EFFECTS OF NEW TAX LAWS

Tax shelter investments in agriculture were an obvious target of Tax Reform. But, as shown by the previous examples, the effects of the reform provisions are mixed. This mixture of results stems not from the complexity of the problem but from an obvious attempt to preserve several "loopholes" for use by farmers. Foremost in the use of cash accounting, current deduction of some capital expenditures and capital gains treatment for certain assets.[22/] An examination of effects in terms of the various reform provisions is useful.

The recapture features of the Excess Deductions Account (EDA) were billed by some as "demolishing tax shelters" in agriculture [7, p. 187]. The budgeted

examples show, however, that this provision does not affect small and medium sized investments such as 100 beef breeding cows or 120 acres of almonds (prior to capitalization requirements). This is not too surprising since previous studies reveal that less than 1/2 percent of tax returns showing farm losses have a combination of (a) losses over $25,000, and (b) nonfarm income over $50,000 [9, p. 348].

Increasing the holding period to qualify for capital gains treatment decreases the profitability of tax shelter investments in livestock and will also increase ranchers' tax liability. Recapture of excess livestock depreciation and prohibition of tax free exchanges of male for female calves will effect nonfarm investors and a few registered livestock producers rather than commercial cattle operations.[23/] Decreased tax shelter advantages for livestock investments will have several effects but in aggregate they are probably small. A decrease in breeding cattle ownership by nonfarm investors with an accompanying decrease in capital available to ranchers is likely. Oppenheimer Industries, Inc., a large cattle management company, reported a 17 percent decrease in their cattle management business during the year following passage of the Act. Herd numbers declined from 148,000 in 1969 to 122,000 in 1970 [14, p. 1]. Mr. Ronald Jarvis, Jr., President of Oppenheimer Industries, Inc., wrote that his firm normally channels over $20 million annually into agriculture through its various cattle programs [12]. In 1970 this dropped to a little over $13 million.[24/]

The tax shelter advantages of establishing citrus groves and almond orchards have been terminated by tax law changes. In addition, the tax subsidy formerly available to all developers of these two crops (farmers and nonfarm investors) has been effectively eliminated. Since the cost of developing citrus and almond orchards is increased, one can expect an immediate decrease in the rate of new plantings, a gradual increase in the value of established groves and orchards,

improved prices (compared to what would otherwise exist) of the two crops due to a decreased rate of additions to bearing acreage, and a shift in investor interest to established groves and orchards with a large capital account available for depreciation. Other rather immediate effects will be decreased demand for citrus and almond seedlings from nurseries and decreased demand for land suitable for developing citrus groves and almond orchards. All of these effects will be centered in present regions of production.

For all other orchards and vineyards, tax subsidies exist virtually undisturbed by reform. High income investors (and farmers) continued to enjoy substantial tax advantages over low income investors in developing orchards and vineyards. Tax shelter investments in orchard or vineyard establishment which were profitable before Tax Reform continue to be profitable when pursued on a small to medium scale. Large tax shelter investments may offer slightly lower profits if there is a balance in the Excess Deductions Account or if over $50,000 in capital gains are realized in a tax year.

Recapture provisions on soil and water conservation and land clearing expenditures combined with interest limitations will curtail tax motivated investments in farm land and in its improvement or reclamation. No quantitative estimate of probable changes in conservation expenditures is available but a decrease is likely.

The abolition of tax shelter investments in citrus, almonds, and land improvements will shift investor interest to other crops and activities or to nonagricultural investments. In California, there seems to be increased interest in developing pistachio orchards, walnut orchards, and wine grape vineyards as tax shelters.[25/] Sharply increased plantings of these and other perennial crops which are tax motivated can be expected to result in decreased product prices as new acreages reach bearing age. Because of the fixed nature of orchard investments, many of these effects will not be evident for some time.

Tax rate changes occurring over time favor larger scale farms and expansion through borrowed capital. The maximum tax on earned income increases the advantage of expansion with borrowed capital. The immediate impact of the tax rate decreases is, of course, higher after tax income. Over time the decreases in marginal tax rates will also support current trends toward fewer and larger farm units.

AGRICULTURAL ECONOMISTS AND INCOME TAX POLICY

While tax policy is established by our legislative bodies, there is a real need for economic as well as legal research in the development phases. This paper touches on only a few aspects of current income tax provisions as applicable to agriculture but opportunities for research to guide in future tax law changes are evident. Some researchable topics to which Agricultural Economists can contribute include:

1. What would be the effect of abolishing the use of cash accounting by farmers? O'Byrne shows, for example, that some situations favor cash accounting while others favor accrual accounting [13, p. 65]. If cash accounting were abolished, what special problems would be encountered by various enterprises?
2. How substantial are current tax subsidies for orchard development? Are subsidies desirable given inelastic demands and surplus production for some orchard crops? As an example of apparent conflicts in policy, we find tax subsidies for establishing cling peach orchards and a market order program which includes a green drop and tree removal. If capitalization provisions applicable to citrus and almonds were extended, what are the relevant development periods?
3. How important are tax induced flows of capital into agriculture? Are tax subsidies the most efficient means of providing this capital?

These questions are only a beginning, many more need answers. Analytical tools and models are available for these types of problems. Budgeting and linear programming are useful approaches as are systems models and simulation. If one includes income taxes when formulating analytical models, the effects of changing tax laws can be estimated or traced through the system.

Alternative income tax provisions can effect agriculture in different ways. As an illustration, tax subsidies can be used to encourage investment in agriculture, increase output, and, perhaps, maintain low farm prices and incomes. If the goal is to raise farm income, tax subsidies may be inappropriate, especially for products with inelastic demand. Progressive tax rates and changes in rates can effect optimum farm size and the desirable means of expansion. Tax provisions can also influence the demand and price for land and other inputs and the level of conservation expenditures. Thus, changes in agricultural tax provisions should be examined in terms of agricultural policy goals to be sure that they are compatible.

SUMMARY

This paper considers only a few of the many income tax provisions which affect agriculture. It concentrates on examining the impact of recent changes in federal income tax law, with emphasis on tax shelter investments in agriculture and optimum farm size. The results suggest that Tax Reform has had mixed effects on tax loss farming with variation by type and size of investment, income of the investor and manner of operation. Livestock and some orchard crops continue to offer attractive tax shelter advantages to the careful investor but establishment of almond orchards or citrus groves and conservation expenditures are no longer profitable from a tax standpoint. Decreases in marginal and average income tax rates have increased the optimum size of farm, regardless of equity position. However, the use of borrowed capital to finance expansion is even more

attractive than it was previously. Several areas in which Agricultural Economists can contribute in the tax policy process are briefly discussed. The explicit recognition of income taxes in models of industry adjustments and firm decision making should lead to improved coordination of income tax and agricultural policy.

FOOTNOTES

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1/ Several income tax planning considerations (before tax reform) are discussed in [5].

2/ The studies have analyzed the effect of income taxes on the level and distribution of farm income [19], on farming efficiency with emphasis on corn belt agriculture [2], and on large-scale agriculture [10]. Hypotheses concerning the impact of tax motivated investments in agriculture have also been advanced [3], [4], [10], [22].

3/ Also referred to as the Act, the Tax Reform Act or Tax Reform.

4/ The other two provisions tighten hobby-farming regulations and permit deferral of crop insurance proceeds.

5/ For descriptions of the various Tax Reform provisions related to agriculture, see [7] and [23].

6/ Davenport presents an excellent discussion of possible approaches to tax reform in agriculture together with a lawyer's evaluation of provisions of the Act [9]. He criticizes recapture as being a complex and inferior approach to the solution of a comparatively simple problem.

7/ For an interesting description of the trials and tribulations of over 500 investors who found themselves looking for homes for over 15,000 registered Angus, see [15] and [16].

8/ All tax calculations are for a married taxpayer filing a joint return.

9/ A taxpayer is required to maintain an EDA only if nonfarm adjusted gross income exceeds $50,000 for the year and farm net loss is over $25,000. Then any losses in excess of $25,000 go into EDA. Any balance in the EDA is

FOOTNOTES (Continued)

recaptured as ordinary income on the disposition of farm recapture property [7, p. 187-193]. The first $50,000 of capital gains continues to be subject to a maximum rate of 25 percent but the maximum rate on larger gains will be increased to 35 percent in 1972 [7, p. 52].

10/ The provisions relating to citrus are in Act Section 216, P.L. 91-172. Provisions relating to almonds are in P.L. 91-680. It appears that citrus provisions were simply extended to almonds. Since almonds typically begin bearing a crop one year sooner than citrus, the economic rationale for applying a four-year capitalization period to both is not obvious.

11/ Any interest and taxes paid on the land would be deductible from other income.

12/ The value of land suitable for almond orchard development was reported to be $1,800 per acre in 1969 [17, p. 4]. The value of land with an established almond orchard in the San Joaquin Valley in 1969 was $2,275 [18, p. 14].

13/ The kink in the line showing after tax returns occurs because of the maximum tax rate of 25 percent on capital gains. Beginning in 1972, if the investor has capital gains of over $50,000 from other sources, the kink will disappear, i.e., the slope of the line between the 20 and 50 percent brackets will continue to the 70 percent bracket.

14/ The effect of this capital loss on total income tax liability is not considered. The Tax Reform Act provides that capital losses are allowed only to the extent of capital gains plus the smallest of either taxable income for the year or $1,000.

15/ While developers who keep citrus groves and almond orchards longer than four years eventually recover their development expenses through depreciation, the recovery is not as attractive as that formerly available through current

FOOTNOTES (Continued)

deduction of expenses. For example, straight-line depreciation of the $735 capital account in the budgeted example provides an annual deduction of $24.50 per acre which saves the investor in the 70 percent tax bracket $17.15. The present value of a 30-year annuity of $17.50 per year at 7 percent interest is $212.81. Before reform the same investment yielded deductions of $615 for a tax saving of $430.50. Addition of $34.75 for the present value of depreciation on trees at 7 percent raises the total to $465.25 which is an advantage of $252.44 per acre for current deduction of expenses.

16/ For an example of the use of prepaid interest on land investments see [3, p. 116-117].

17/ The deduction in any tax year of expenditures of a capital nature for soil and water conservation is limited to 25 percent of gross income from farming for the year. Any unused deduction can be carried over to succeeding years [21, p. 40-41]. Land clearing expenditures can also be deducted. The deduction in any year cannot exceed $5,000 or 25 percent of taxable income from farming, whichever is less, and the balance must be capitalized [21, p. 23].

18/ Earned income will be subject to a special reduced tax rate not in excess of 60 percent in 1971 and 50 percent in 1972. "Earned income" includes wages, salaries, professional fees or compensation for personal services. However, if the taxpayer is engaged in a trade or business in which both capital and personal services are income-producing factors, earned income is a reasonable allowance for personal services rendered but not in excess of 30 percent of the net profits [13, p. viii - ix]. Thus for the present analysis this provision only influences tax calculations for incomes over $173,00. For an example of tax calculations see [7, p. 48-50].

FOOTNOTES (Continued)

19/ The assumption and specification for the original analysis are utilized for this analysis. See [6, p. 22-25] and [10, p. 759].

20/ The total cost curves correspond to C_6' in the original study [10, p. 760].

21/ Goetz and Weber found, for example, that because of inflation many taxpayers face higher real tax rates in 1970 than they did in 1954 despite the decreases in the statutory tax rate structure occurring during 1964-65 and 1969 [11, p. 51].

22/ One should not conclude that agriculture is the only industry enjoying tax "loopholes." In fact there are a number of activities which probably offer more attractive tax loss opportunities. Included are new residential real estate, intangible drilling expenses for oil and gas, and tax exempt mutual bonds. For a discussion see [1] and [20].

23/ Recapture of excess depreciation was a strong factor in the collapse of Black Watch Farms. In addition it appears that the cattle were seriously overpriced, a decreasing stock market cooled investor interest and loan funds became very difficult to obtain [15]. Some investors who were forced to sell their cattle on the open market recovered only 10 cents per dollar invested.

24/ All of this decrease can't be attributed to tax law changes. Jarvis also cites the collapse of Black Watch Farms, an unfavorable stock market and depressed conditions in the entertainment industry as factors in the decrease [12].

25/ See, for example, a recent article which describes some of the advantages (including tax) available for pistachios [8].

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