The implications of the federal income tax associated with the possible movement of resources into agriculture
by Richard O Wheeler

A THESIS Submitted to the Graduate Faculty in partial fulfillment of the requirements for the degree of Master of Science in Agricultural Economics
Montana State University
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Abstract:
This study is concerned with the possible effect that the federal income tax may have with respect to resource allocation. The study is intended to answer the questions: Are there certain tax provisions that will attract the movement of resources from outside the agricultural economy into agriculture because of the tax benefit received? If so, what is the nature and magnitude of this incentive? The federal income tax laws which are of concern are the capital gains provision, the soil and water conservation expenditure provision and the accelerated depreciation provision.

The models presented indicate that the decisions associated with the allocation of resources to maximize profits will not be complete if the federal income tax is not considered. The maximum profit point with respect to resource allocation before the consideration of the federal income tax will differ from the maximum point of profit after consider-ing the federal income tax.

The "net tax benefit" is used to indicate the increment of money gain that accrues to the individual after the federal income tax. If this increment is to be gained, the allocation of resources must be used to permit the use of certain tax provisions. The size of the "net tax benefit" will be a function of the taxable position of the indivi-dual taxpayer.

A model to demonstrate, the relationship of the amount of "net tax benefit" necessary to influence the decision of the holder of resources, is presented. This model can be used in analyzing the amount of "net tax benefit" that would be required between alternative uses of resources and risk and uncertainty, effort, liquidity preference, etc. The "net tax benefit" can be expressed as a rate or converted to dollar amounts.

The conclusions of this study are that the "net tax benefit" is of sufficient strength in many situations to attract resources from outside the agricultural economy into agriculture and to shift the use of the resource allocation within the firm to conform to certain tax advantages. One of the more important inferences that can be drawn is that the fed-eral income tax should be included as a variable factor during the cal-culation of optimizing the most profitable level of production and not be imposed as a rate after the optimum profit point is established.

THE IMPLICATIONS OF THE FEDERAL INCOME TAX ASSOCIATED WITH THE POSSIBLE MOVEMENT OF RESOURCES INTO AGRICULTURE

by

RICHARD O. WHEELER

A THESIS

Submitted to the Graduate Faculty

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Any errors or omissions in this study are the responsibility of the author.

ABSTRACT

This study is concerned with the possible effect that the federal income tax may have with respect to resource allocation. The study is intended to answer the questions: Are there certain tax provisions that will attract the movement of resources from outside the agricultural economy into agriculture because of the tax benefit received? If so, what is the nature and magnitude of this incentive? The federal income tax laws which are of concern are the capital gains provision, the soil and water conservation expenditure provision and the accelerated depreciation provision.

The models presented indicate that the decisions associated with the allocation of resources to maximize profits will not be complete if the federal income tax is not considered. The maximum profit point with respect to resource allocation before the consideration of the federal income tax will differ from the maximum point of profit after considering the federal income tax.

The "net tax benefit" is used to indicate the increment of money gain that accrues to the individual after the federal income tax. If this increment is to be gained, the allocation of resources must be used to permit the use of certain tax provisions. The size of the "net tax benefit" will be a function of the taxable position of the individual taxpayer.

A model to demonstrate the relationship of the amount of "net tax benefit" necessary to influence the decision of the holder of resources, is presented. This model can be used in analyzing the amount of "net tax benefit" that would be required between alternative uses of resources and risk and uncertainty, effort, liquidity preference, etc. The "net tax benefit" can be expressed as a rate or converted to dollar amounts.

The conclusions of this study are that the "net tax benefit" is of sufficient strength in many situations to attract resources from outside the agricultural economy into agriculture and to shift the use of the resource allocation within the firm to conform to certain tax advantages. One of the more important inferences that can be drawn is that the federal income tax should be included as a variable factor during the calculation of optimizing the most profitable level of production and not be imposed as a rate after the optimum profit point is established.

PART I

INTRODUCTION

General Problem Area

A tax has been defined as "a compulsory contribution levied upon persons, property, or business for the support of government."[1] Various forms of taxes and degrees of taxation are noted throughout history. Taxes have been associated with violence, drudgery, and exploitation; many other derogatory terms have been used to explain the essence of certain tax systems. Taxes are often considered as only a necessary evil that one will never really escape. All forms of taxes tend to discriminate against certain individuals or groups. It is the degree of discrimination and the possible diverse effects that a tax may have on society that will determine the merit of alternative tax systems.

Ricardo noted that, "taxation under every form presents but a choice of evils; if it does not act on profit, or other sources of income it must act on expenditure; and provided the burden be equally borne and does not repress reproduction, it is indifferent on which it is levied."[2] The "repression of reproduction" is one of the more important aspects in which economists should be concerned.

The income tax was first proposed in the United States as early as 1815 and such a tax was actually collected during the period of 1863-1873.

1/ Funk and Wagnalls, College Standard Dictionary, Funk and Wagnalls Company, New York and London, 1943, p. 1151.

2/ David Ricardo, Political Economy and Taxation, George Bell and Sons, York Street Convent Gardens, London, England, 1891, pp. 148-149.

The present law properly began with the Revenue Act of 1894. A court decision nine months after its passage declared this Act unconstitutional.[1/]

It was not until the passage of the 16th Amendment that the federal government was authorized to collect taxes on income. The Revenue Act of 1913 taxed income accruing after March 1, 1913. This date is important inasmuch as it may still be cited in certain cases in which values may have to be determined for tax purposes.

Since the Revenue Act of 1913 we have had over 40 Revenue Acts of which two are of main concern. The Revenue Act of 1939 incorporated all previous acts, the Revised Statutes, and other related laws into the Internal Revenue Code. The Revenue Act of 1954 completely overhauled the 1939 code and provided the tax framework that will be used for the purpose of this study.[2/]

The federal finance problem during the era of the turn of the 20th Century was one of the disposition of surplus revenue. From the turn of this century to the beginning of World War I, the tax structure, which was quite crude in imposition and collection, did not require a great deal of sophistication. The burden was not intolerable nor was it severe enough to require consideration in economic decisions at either the micro and macroeconomic levels. Richard T. Ely stated in 1924, "we are now

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1/ Prentice-Hall, Federal Tax Course 1959, Prentice-Hall, Englewood Cliffs, New Jersey, 1958, p. 1002 -- the historical case of Pollock vs. The Farmer's Loan and Trust Company.

2/ Ibid., p. 1004.

living in a period of heavy taxes and greatest public expenditures."[1] This was in reference to the 1922 public expenditure of seven billion dollars. When compared to our present expenditure of approximately 77 billion dollars, the expenditure in 1922 seems quite small even if one considers the income and price levels of the two periods.

We have had a continued overall increase in federal income taxes through time and there is no reason to believe this condition will change.[2] If this trend does continue, the federal income tax can be expected to play a more important role in our economy.

More research has been directed toward state and local taxes than toward problems associated with the federal income tax. This does not necessarily indicate that the taxes on farm real estate are of greater consequence than the federal income tax. In fact, quite the opposite is true if the dollar amounts are considered. Table I is presented to indicate the relationship of the possible magnitude of these respective taxes.

The relative difficulty of getting significant information for the analysis of the implications of the federal income tax to firms and industries may be a factor in keeping the empirical researcher from investigating this tax. There has been some research done in compiling tax

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1/ Richard T. Ely, Taxation of Farm Land, Webb Publishing Company, St. Paul, Minnesota, 1924, p. 4.

2/ Byron Johnson, "Trends in Public Finance," Proceedings -- Financing State Services, Montana State College, December 15-16, 1958, pp. 5-17.

TABLE I. FEDERAL INCOME TAX PAYMENTS OF THE FARM POPULATION, AND TAXES LEVIED ON FARM REAL ESTATE, 1941-55.*

Year of Payment	Taxes Levied on Farm Real Estate[a]	Income Tax Payments[a]
	Million Dollars	Million Dollars
1941	401	15
1942	407	85
1943	399	400
1944	400	880
1945	419	1,090
1946	465	1,060
1947	519	995
1948	605	1,365
1949	656	965
1950	706	825
1951	741	865
1952	781	1,185
1953	822	1,400
1954	866	1,430
1955	906	1,120

* Source: United States Department of Agriculture, The Impact of Federal Income Taxes on Farm People, Agricultural Research Service, ARS 43-11, Washington D. C., July 1955, p. 15.

[a] For purposes of comparison, both property and income taxes have been related to the year of payment rather than to the income year, or (in the case of the real estate tax) the year of levy.

information pertaining to the aggregate economic effects and indeed a great deal has been done in the theoretical problems associated with the aggregate economy. But outside of a minor amount of theoretical micro-economic analysis of progressive taxation, there has been very little done with respect to our present federal income tax structure as pertaining to the firm. As was noted by Harold G. Halcrow, "using rates or aggregates in the usual manner, therefore, does not give us a meaningful concept of tax load and provides very little guide to policy. Sharpening our statistical procedure, no matter how necessary in an empirical sense, will not provide us with an answer to the significant problem of policy because the essence of our case will be contained in something quite beyond these figures." He noted further, that one of the places this information will be forthcoming will be in studies of effects of various taxes on resource utilization within agriculture and on the income received.[1/]

The Specific Problem Area

This leads to the question. Are there some inherent characteristics of the present federal income tax structure that may affect the resource allocation within the agricultural economy or from certain sources outside of agriculture that may find entry into the agricultural economy advantageous because of the implication of the federal income tax structure? This study will be concerned with investigating certain tax

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1/ Harold G. Halcrow, (discussion), "Analyzing the Tax Load of Agriculture," Journal of Farm Economics, Vol. 31, 1951, pp. 668-681.

provisions that may cause a shift in resources, mainly capital, that might not take place if no income tax existed. The primary problem will be that investigation of specific provisions in the federal income tax laws that will permit capital from outside sources to find refuge from income taxation by investing these resources in the agricultural economy. This primary problem implies changing of the resource allocation within the farm firm because of the federal income tax law.

There are supported and unsupported indications that resources are shifted within the farm firm because of income tax implications. Dr. Layton S. Thompson noted this possibility when he stated, "with no provision in the tax law to compensate for fluctuating yearly incomes for tax purposes, the advantages of saving some of the large crops to sell in years of crop shortage, thus staying within lower income brackets, will pay for some of the cost of storage."[1/] This was further supported, in a later study, when a survey of farmers listed the items that were of importance in storage decisions. Of the 14 items listed, income control and income tax considerations were mentioned by 84 percent of the farmers reporting and this gave that item the number one spot in the order of importance.[2/] These findings indicate that the federal income tax does

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1/ Layton S. Thompson, An Analysis of the Decision-making Process of the Farm Firm as Related to the Construction of On-the-farm Grain Storage Facilities, Montana Agricultural Experiment Station, Mimeograph Circular 82, Bozeman, Montana, May 1954.

2/ United States Department of Agriculture, Marketing High Protein Wheat in the Northern Great Plains, Agricultural Marketing Service, Montana State College, Bulletin 527, Bozeman, Montana, January 1957.

enter into decisions of the entrepreneur regarding the arrangement of resources.

Now what is the position of the individual with a high income received from a source outside of agriculture? Are there certain advantages in investing his savings in agriculture? The statement, "he purchased that ranch for a tax dodge," is perhaps not without some element of truth. This study will be concerned with investigating the possibility that this condition may be based on sound economic reasoning as far as the individual investor is concerned.

The purpose of this study <u>is not</u> to demonstrate methods of "beating" the income tax but rather to explore the implications associated with the possibility of resources shifting because of the efforts of an individual to take full advantage of certain tax provisions that are available for reducing his tax burden. It will be assumed that it is morally and socially acceptable for an individual to take every legal means in reducing his tax burden.

The entire problem will be concerned only with the identification of economic effects of tax provisions that may create a shift in resources that would not take place in a theoretical framework that does not consider the federal income tax. The specific research effort will assume rational economic judgment by individuals under different economic conditions.

Framework of Analysis

For purposes of analysis in this study, it seems that a primary motive must be identified. The following statement by Arthur S. Dewing seems acceptable: "Probably the profit motive is the strongest financial motive with liquidity and solvency ranking somewhere near along with certain nonfinancial motives, such as, (1) ambition, (2) the creative impulse and (3) speculations, or the satisfaction in taking speculative chances."[1/] It is assumed the goal of the individual is to maximize net income after payment of the federal income tax. An effort will be made to determine how the federal income tax laws will affect resource allocation in an attempt to achieve this goal.

The analysis will be carried forward substantially in a theoretical framework. The problem will be analyzed in a theoretical framework of the general nature of the "theory of the firm." This may allow certain conditions to enter that may not be too closely associated with reality. There are also noneconomic factors that enter into the decisions of the holder of resources that cannot be identified with the present economic tools. The usual weakness of assuming away perhaps relevant factors is of course another peril. The secondary data can be used only to help strengthen the conclusions that the theory may indicate.

It will be necessary to construct hypothetical budgets to determine the possible effect that the federal income tax may have in the decisions

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1/ Arthur Stone Dewing, The Financial Policy of Corporations, 4th Edition, Vol. 2, Harvard University Press, Cambridge, Massachusetts, 1941, p. 854.

of the holder of certain resources. These budgets will differ somewhat from the usual type budget of itemized expenses and revenues. The budgets presented here will assume certain net returns and will take the form of the results of many different income and expense statements.

It will be necessary to select a method that will permit the returns from alternative investments to be compared. It seems reasonable that if an individual has complete control of his capital, we can say that at certain levels of return the investor may prefer the return from investment "A" to that of investment "B". We need not at this time define the factors, such as, risk and uncertainty, time preference, etc., that will permit the investor to prefer investment "A". Now it seems that there can exist a converse situation from that shown above that will permit investment "B" to be preferred to investment "A". If this is true, then it logically follows that there can exist a case in which the investor is indifferent to the return from investment "A" and investment "B".

If all factors other than rate of return to investment "A" and investment "B" are equal, it would not seem inconsistent that the rate of return would be the determining factor in the selection of the alternative investment. In other words, the assumption that an individual will prefer the investment that returns the greatest monetary amount, all other things equal, is consistent. If the rate of return were equal in both cases, it might be possible to say the investments were identical. However, the investments might be composed of factors that taken as a group would have identical characteristics even though the characteristics

of the individual factors were of different magnitudes. This is essentially the same type of reasoning J. R. Hicks used as a foundation for his analysis of the demand for consumer goods in which it was assumed that the consumer would always prefer more of a commodity if it did not mean relinquishment of any other commodity.[1/] Here we are assuming the investor will always prefer a greater return from his investment if he does not have to endure any additional unfavorable burdens.

The above approach may seem to imply that the choice of investment be a strict function of the rate of return. This restriction may be inferred but does not have to be the case. It is possible, after the rate of return is calculated, to discount this figure for time preference or risk and uncertainty. In fact, we need not express the discount figure before our analysis but only isolate the return from the alternative investments and then find the amount of discount that would be necessary to make the investments indifferent.

This approach seems to lead directly toward the selection of the investment that may prove to be the more favorable. It relieves the research worker of the responsibility of making the decision of placing a value on time preference and the other related variables. He need only say that one investment will be preferred to the other, if and only if, it is discounted at a rate of say 4 percent per year. This will not require individual judgments as to the discount rates.

1/ J. R. Hicks, A Revision of Demand Theory, Oxford at the Clarendon Press, 1956, pp. 16-35.

Hypothesis

Certain portions of the present federal income tax structures will permit a condition that will stimulate resources to be used in a manner that would not be the optimum allocation if the federal income tax did not exist. Because of the progressive nature of the income tax and certain tax provisions, there can exist instances when an individual can more profitably invest his capital in an agricultural enterprise that will yield a lesser return on investment than investing in stocks or bonds that return a higher rate before the federal income tax payments.

Sequence of Analysis

In Part II, a review of the first series of tax provisions that will be of concern to this study will be presented. These provisions are, (1) the capital gain and loss provisions and (2) the soil and water conservation expenditure provision.

The first set of budgets will be presented and investigated. These budgets will serve as the basis for analyzing the position of an individual investor, in various income groups, as he takes advantage of certain federal income tax provisions.

In Part III, the provision for handling the depreciation of capital assets will be reviewed. This provision will be used in continuing the analysis in the same fashion as the analysis in Part II. The necessary assumptions for analysis will be presented as the necessity for them occurs.

In Part IV, the conclusions and implications of the research effort will be presented.

PART II

THE ECONOMIC IMPLICATIONS ASSOCIATED WITH THE SOIL AND WATER CONSERVATION EXPENDITURE PROVISION AND THE CAPITAL GAIN PROVISION

There are many provisions in the Internal Revenue Code that allow for special handling of certain expenditures and income. These provisions range from the outright exclusion of all income received from a certain source to the partial exclusion of the income received from other sources. The exclusion of the interest received from tax exempt state and municipal bonds is an example of the exclusion of all income received from a given source. The exclusion of the first $50 of dividends is an example of a partial exclusion of income received. The special provision for allowance for depletion of oil and gas wells given to the oil and gas industry is another example of a special benefit provision. The tax exempt bonds provision permits the states and municipalities to move their bonds on the market at a lower rate. These examples are presented to point out that certain provisions in our tax laws are for the purpose of encouraging resources to enter areas in which they might not enter if no special tax treatment was permitted. The above provisions will not enter into the analysis of this study. In this study, the special provisions that will be of concern are those that affect the agricultural economy.

The Soil and Water Conservation Provision

The first special tax provision that will be given consideration is the soil and water conservation expenditure provision. If considered in

a broad sense, the essence of this provision is to allow the taxpayer to take a capital expenditure and handle it as an operating expense. The taxpayer has the alternative of capitalizing the expenditure or taking it as an expense.

There are certain qualifications that must be met if the expenditure is to qualify for special handling. The expenditure must be made to further the business of farming and if the land is newly-acquired, the deduction applies only if land is put to substantially the same use as it was before its acquisition (Sec. 1.175).[1] The deduction applies to land used, by the taxpayer or his tenant, for the sustenance of livestock or the production of other agricultural products (Sec. 175 c 2). The deduction does not apply where the expenditure is used for the purchase, construction, installation, or improvement of structures, appliances or facilities subject to depreciation (Sec. 175 c; 1.175-2). The deduction would not be available if the taxpayer's farm was being operated for recreation or pleasure, i.e., a hobby farm.[2] The amount of the expenditure for any one year is limited to 25 percent of the gross income from

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1/ Prentice-Hall, op.cit., p. 1020 -- The symbols shown in parentheses are in reference to the sections of the Internal Revenue Code and will appear throughout the text of this study without reference to any footnote.

2/ Ibid., p. 1841 -- It is interesting to note the decision of the tax court in this matter. In the case of Fish vs. Irwin 3 AFTR 3428, it was ruled that, " it has long been recognized that farming may be a business, even though the person engaged in it is willing to carry on without regard to its profitableness because of the pleasure derived from it." "It is the expectation of gain, and not gain itself which is one of the factors entering into a determination of the question," Riker, 6 BTA 890.

the farm or the farms (if more than one), however, the gain on the sale of assets must be excluded from gross income when determining the expenditure limit.

The general area in which the soil and water conservation provision qualifies for special handling is when the expenditure is used for the treatment and moving of earth including -- but not limited to -- leveling, grading, terracing, contour furrowing and the restoration of soil fertility. In addition to those listed above, the eradication of brush, planting of windbreaks, and the construction, control and protection of diversion channels, drainage ditches, irrigation ditches, earthen dams, watercourses, outlets and ponds, are included.1/

The specific type of qualifying expenditure for soil and water conservation will not be defined in this analysis. Because of the unique characteristics of individual ranches, the type and placement of the expenditure would vary with every ranch unit. One ranch may lend itself to improvement through eradication of brush and the development of earthen dams for the watering of livestock while another may not be in a condition that will permit an economic expenditure in this area but will rather have room for tremendous improvement through expenditures for drainage or irrigation of the meadow lands for the development of pasture or hay. It is only necessary for purposes of this study that the particular unit have the necessary characteristics that will permit a

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1/ Ibid., pp. 1841-1842.

qualified expenditure. It is further assumed that the expenditure improves the value of the ranch unit by the amount of the expenditure.

The Capital Gain Provision

The analysis for this study is for a one year period and the ranch is sold in the same taxable year as the soil and water conservation expenditure was used in the ranch unit. The analysis could have been carried for a longer period and the results would not have been altered by a significant amount unless the continued outlay for improvement did not result in a proportional value added to the ranch unit. In other words, this assumes away diminishing returns and substitutes constant returns for every monetary unit place in the improvement of the ranch unit. In fact, there is no reason to believe that there would not exist an area of increasing returns with respect to the capital expenditure. There does exist some additional advantage to the investment in the ranch as opposed to the investment in stocks or bonds. This would be in the area of the capital accumulation that results when the taxpayer is permitted to use a portion of the net return from the investment as an expense. The return from investment in stocks or bonds is fully taxable and the amount of capital accumulation will be that amount of net return after taxes while in the case of the investment in the ranch there exists some degree of tax free built-in capital accumulation until the ranch is sold. This additional advantage will be ignored, not because it is not important but because the additional complication of considering this factor would be of a greater consequence than the addition to the accuracy that would result.

The sale of the ranch unit will qualify as a sale of a capital asset and the capital gain provision can be used for the calculation of the taxpayer's income tax liability. To meet the requirements of the capital gain provision the asset will be assumed to be held for more than six months and the property held for the production of income. There will be no consideration given to the possible difference in the cost and the sales value of either the investment in the ranch or the investment in stocks due to inflationary appreciation or any other outside force that might alter the value of the investment. This will permit ignoring changes in the general price level, etc., that might alter the relative monetary value of assets held for the production of income.

There are two distinct methods of handling long term capital gains. The first will be denoted in this study as the "standard method." The essence of this method is that 50 percent of the net long term capital gain is included in the taxpayer's taxable income. The second method will be denoted as the "alternative method." The essence of this method is that the net long term capital gain is not included in the taxpayer's taxable income for calculation of the tax liability for 25 percent of the net long term capital gain is considered in the total tax liability of the taxpayer.

Analysis of Alternative Investments

Figure 1 is presented to indicate the amount of discount that would be required to make the investment in a ranch indifferent to an investment in stocks or bonds. The distance between the two lines (indicated

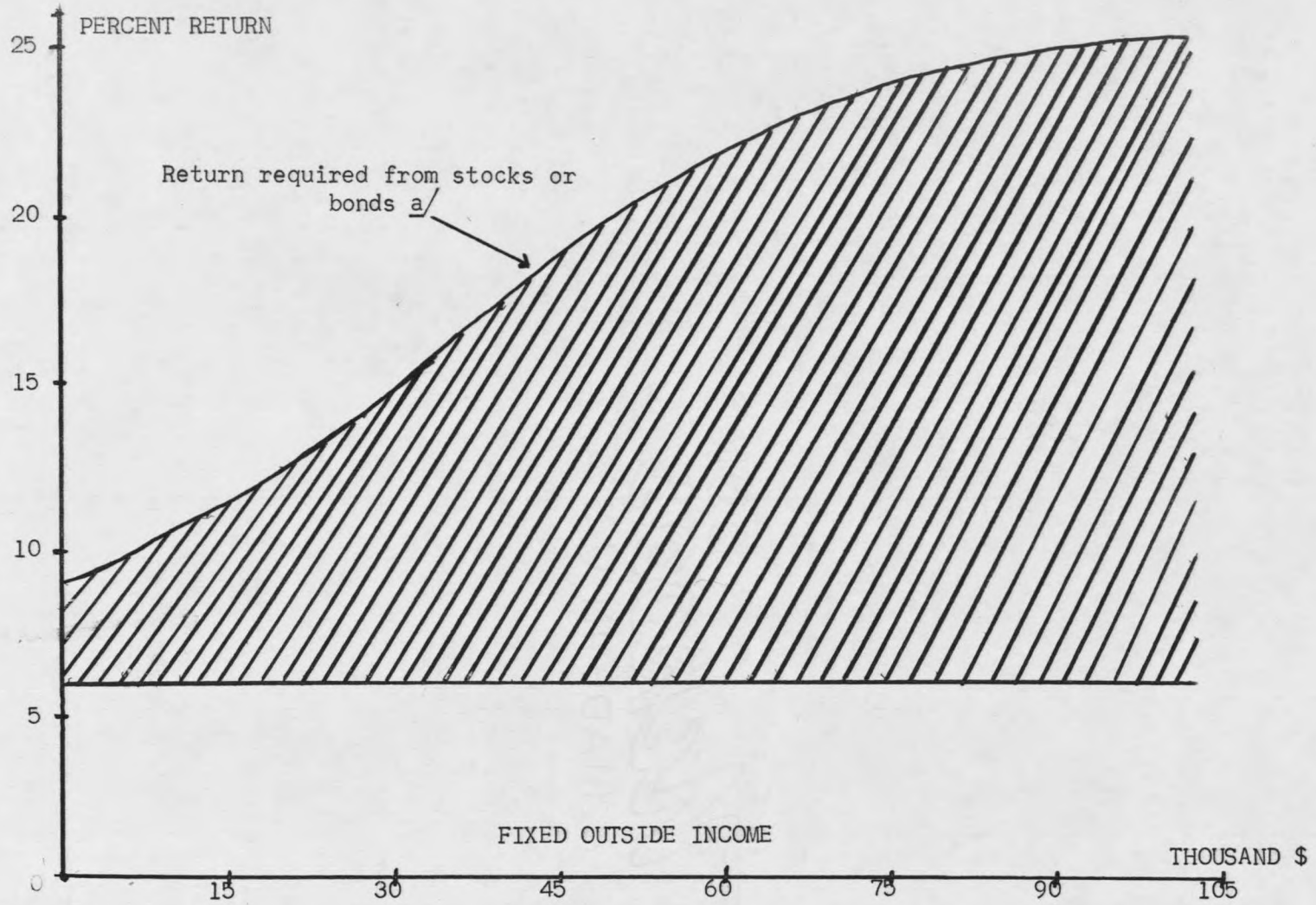


Figure 1. Rate of Return Required on Taxable Bonds or Stocks, at Various Taxable Income Groups, if Investment Is in Ranch Returning 6 Percent.

a/ Using alternative capital gain method -- see Table II Appendix A.

by the slanted lines) is the amount of this discount. Both investments are returning a net return of 6 percent on the total investment before taxes. The investment in the ranch permits taking advantage of the capital gains provision and this is the reason for the discrepancy between the investments.

It can be noted from Figure 1 that the investment in the ranch would require a discount at all income groups to be indifferent to the investment in stocks or bonds. The amount of discount required varies from approximately 2.82 percent, if the taxpayer has zero outside taxable income, to a discount of 19.35 percent if the outside taxable income is $100,000.[1/] The tax schedule used was for a married person filing a separate return (Table II Appendix A) and the alternative capital gain method was used throughout this segment of analysis.

Figure 2 indicates a similar situation as Figure 1 but the discount rate required is not as severe at the various income levels. The reason being that Figure 2 was calculated (Tables III and IV Appendix A) using the tax schedule for a joint return. The solid curved line intersects the dashed curve because of the different capital gain method used. The "alternative method" will usually produce a lower tax liability when the taxable income on a joint return exceeds $36,000, and on a separate return when the taxable income exceeds $18,000.

1/ Outside taxable income is defined in this study as the taxable income of the individual taxpayer before consideration of the return from his investment fund.

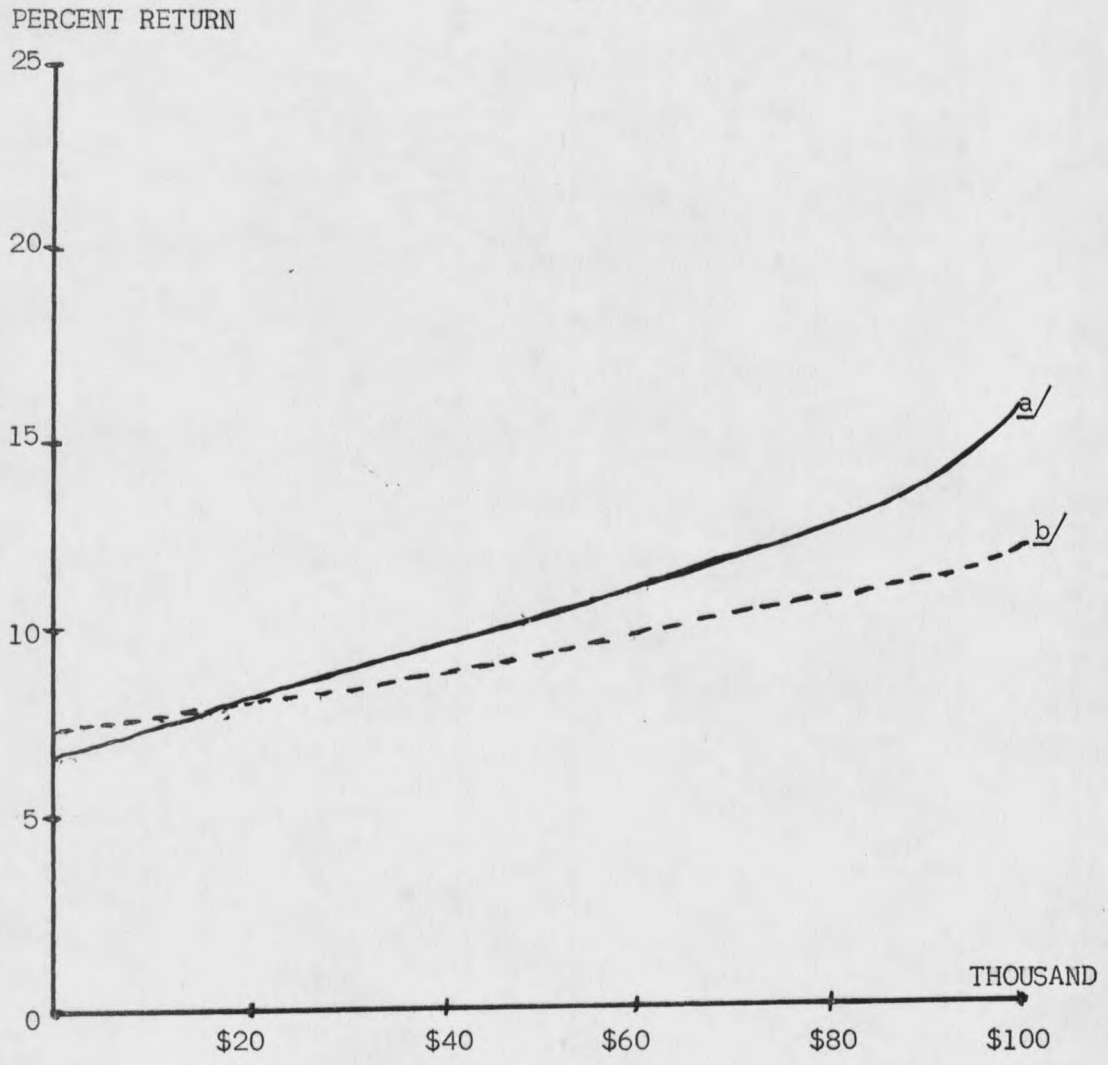


Figure 2. Rate of Return Required on Taxable Bonds or Stocks, at Various Taxable Income Groups, if Investment Is in Ranch Returning 6 Percent and the Soil and Water Expenditure Is Used.

a/ Using alternative capital gain method -- see Table III Appendix A..

b/ Using standard capital gain method -- see Table IV Appendix B.

In Figure 2, the sudden change in the slope of the solid line, as the higher income groups are approached, is brought about because the magnitude of the capital gain is becoming increasingly important as the fixed outside taxable income approaches the higher tax brackets. Beyond the $90,000 taxable income bracket, the marginal discount rate will increase at an increasing rate over a range and will then increase at a decreasing rate much the same fashion as was indicated in Figure 1 when the marginal discount rate was increasing to approximately the $35,000 fixed outside income point and then began decreasing. The amount of discount required to make the investment in a ranch returning 6 percent per year indifferent to the investment in stocks or bonds returning 6 percent per year is now 1.37 percent at zero outside taxable income to 9.45 percent at $100,000 outside taxable income.

The previous analysis indicates that the return from an investment that yields 6 percent per year when invested in a ranch would have to be discounted in every positive taxable income group to be indifferent to the investment in stocks or bonds returning 6 percent per year.

Now what will be the result if the ranch does not return 6 percent on the investment but instead yields somewhat less? Figure 3 is presented to indicate the relationship of the investment in a ranch that is operated below the possible 6 percent return. There seems to be some concern about the possibility that a person in a high income position might purposely have his ranch run at a loss because of the implication of the federal income tax. Figure 3 should disprove this hypothesis. It is

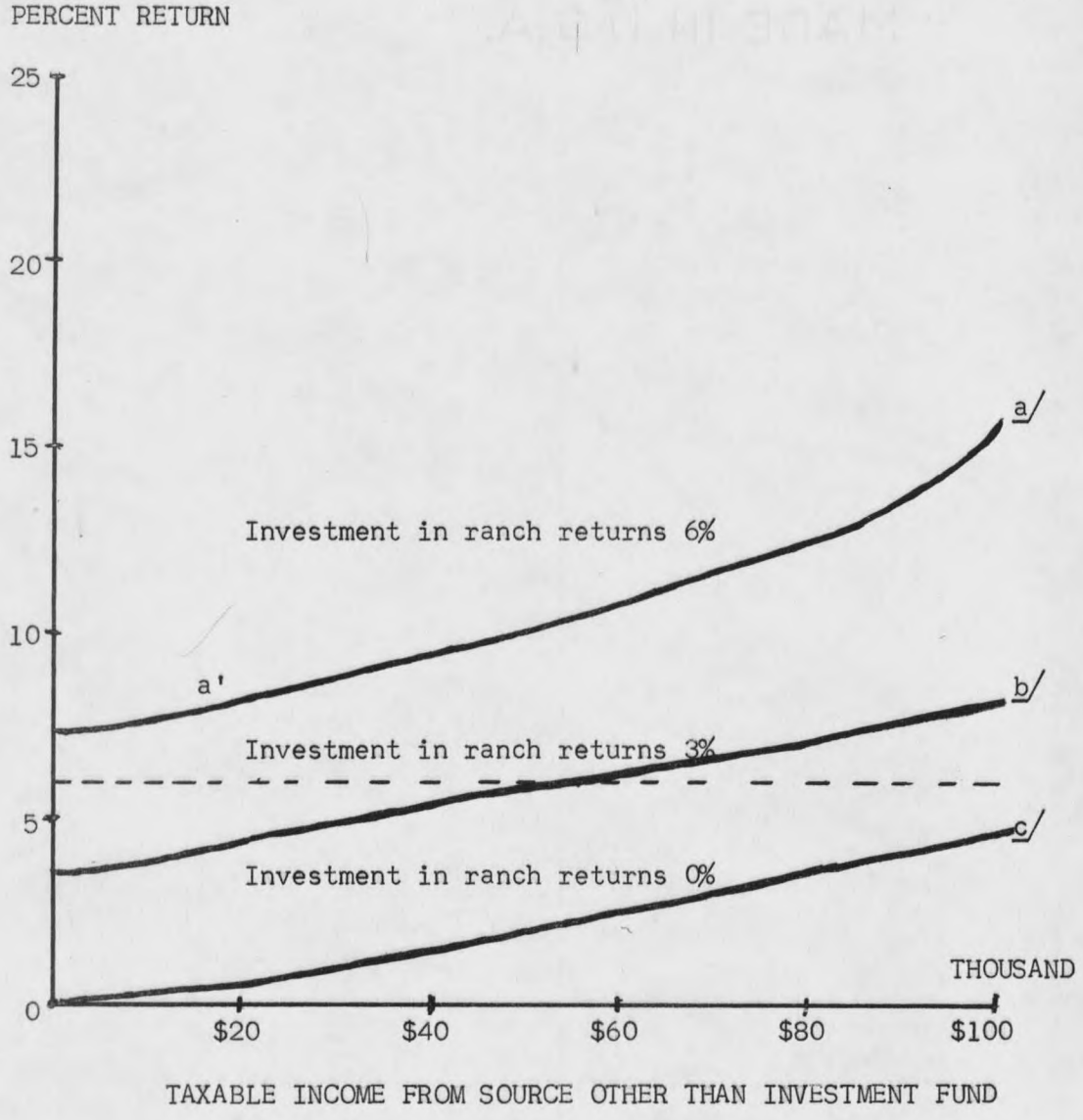


Figure 3. Rate of Return Necessary in Taxable Bonds or Stocks at Various Income Groups when the Soil and Water Conservation Expenditure Is Used in the Ranch Firm.

a/ Return on ranch investment is 6 percent or $30,000 -- all points left of a', the standard capital gain method was used and all points right of a', the alternative capital gain method was used (see Tables III and IV Appendix A).

b/ Return on ranch investment is 3 percent or $15,000 (see Table V Appendix A).

c/ Return on ranch investment is 0 percent or $0 (see Table VI Appendix A).

possible, as shown, that the ranch could be operated in a fashion in which the return is less than the return from stocks or bonds and still return a greater monetary amount. It is even possible, at higher incomes from outside sources than are shown in Figure 3, that the ranch could be operated at a point of zero return and would eventually return more than the 6 percent return in investment in stocks or bonds. The point here is, that there exists no economic incentive to purposely run the ranch in a fashion that would lower the return. In other words, there is no economic justification to the belief that the investor with an outside source of fixed taxable income should invest his funds in a ranch and operate the ranch enterprise at a loss simply because of the implications of the federal income tax. The only reason for the ranch to be operated at the 3 percent return level as opposed to the 6 percent return would be if the marginal utility of the gain would be less than the marginal disutility associated with operating it at the more profitable level.[1/]

Comparison of the Owner-Operator -- Investor

The relative position of the individual with an outside source of income as compared with the owner-operator warrants some investigation. The owner-operator must be considered as being in the position of zero income from outside sources. The owner-operator faces the decision of placing his limited capital in the most productive use within the ranch

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1/ For purposes of this study the most profitable level will be considered that level of operation that returns the greatest profit but does not decrease the value of the property through exploitation of the firm's resources.

firm but he must also consider the implications of the federal income tax. If the net earnings less some minimum living cost are used in the general area of capital expenditures, the entire net earnings may be subject to the federal income tax. If the owner-operator plans to continue the ranch operation, the qualified expenditure for soil and water conservation may return for example 6 percent for each dollar invested and the capital gain tax advantage might be considered a form of interest on savings. The particular characteristics of the ranch firm will determine the most favorable alternative.

Now the discrepancy between the position of the owner-operator and outside investor becomes apparent. The owner-operator is concerned with placing his capital resources in the more productive use while the outside investor may be more interested in the tax advantage. This does not necessarily mean that the expenditure that would qualify for the soil and water conservation provision would not be the best alternative in the allocation of the capital resource within the firm. It is quite possible that this expenditure could be the most desirable of all alternatives. The important thing for purposes of this analysis is that the individual who is investing his funds to take advantage of the special tax provision has committed his capital to a use for tax purposes and will use this means of allocating his capital resources because of the implication of the federal income tax. Now here exists the possibility of the allocation of resources from outside of the agricultural economy (being used in a combination) that is not necessarily an optimum allocation as far as the individual farm firm is concerned. The most that can be said is that

the possibility does exist that there may be a degree of misallocation of resources, however, if the position of the outside investor is one in which the taxable income from outside sources is in the higher tax brackets the incentive to use this means of reducing his tax burden is quite high. Figures 1, 2, and 3 can be used to support this possible association.

Since the investor with an outside source of income can invest his capital in a ranch and receive a tax advantage over investing in stocks or bonds that yield the same return before the federal income tax liability, there must exist some loss in tax revenue. As was noted earlier in this study, there are many provisions that were placed in the tax laws to bring forth the movement of resources into areas that are selected as desirable. The movement of resources into these areas need the tax incentive. It is only necessary for purposes of this study to point out that the real cost of this movement may vary under the different economic positions of those who can use these tax benefits and the loss in tax revenue will be a function of the income position of the individual taxpayer.

The investigation of another special tax provision when coupled with the soil and water conservation expenditure just investigated will follow in the next chapter.

PART III

ANALYSIS OF THE IMPLICATIONS ASSOCIATED WITH THE INVESTMENT OF CAPITAL IN A RANCH FIRM WITH REFERENCE TO THE ACCELERATED DEPRECIATION PROVISION

Depreciation Methods

The analysis to this point has been restricted to the use of the soil and water expenditure aspect of the internal revenue code and its potentiality for inducing investment in the agricultural economy. It seems that there should be one more provision included that could be of as great a consequence as the soil and water conservation provision, this being the special treatment available for handling the depreciation of capital assets.

Three of the more common methods of handling the depreciation of capital assets for tax purposes are, the straight-line, the sum of the years-digit, and the declining-balance. The straight-line method of determining depreciation expense for tax purposes is found by dividing the value of the depreciable asset minus the scrap value by the number of years determined for the life of the asset. The sum of the years-digit method uses the value of the depreciable asset minus the scrap value. This value is multiplied by a reducing fraction. The fraction denominator is obtained by the summation of the years of total expected life. The numerator is the weight of the number of remaining years of life of the asset.[1/] For example, an asset with an expected life of five years

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1/ Karrenbrock and Simons, Intermediate Accounting, South-Western Publishing Company, Cincinnati, Ohio, 1954, pp. 313-314.

would be depreciated 5/15 of the depreciable value in the first year, the following year 4/15 and the fifth and final year 1/15. The relationship of the sum of the years-digit and the straight-line method is presented in Figure 4.

It can be noted from Figure 4, that the sum of the years-digit method is a means of allowing a depreciation expense that exceeds the straight-line depreciation of a capital asset in the early years of its use and of course must be less than the straight-line method in later years. The depreciation expense is deductible for tax purposes as an expense of the business.

The advantage of the sum of the years-digit method now begins to appear. It can increase the working capital of a business during the early years of business. For growing businesses, small firms or farmers dependent upon current earnings for expansion, the faster recovery of the investment in depreciable assets permits use of current earnings from tax savings for expansion or for payment of short term loans for such purposes.[1/] The above statement is the major justification for the use of this method for tax purposes. For purposes of this analysis the interest turns to the area in which this regulation can be used for a different purpose.

Through the use of the sum of the years-digit method, as shown in Figure 4, it should be noted that a business using this method of depreciation could show a negative income for tax purposes and still have had

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1/ Prentice-Hall, op.cit., p. 2018.

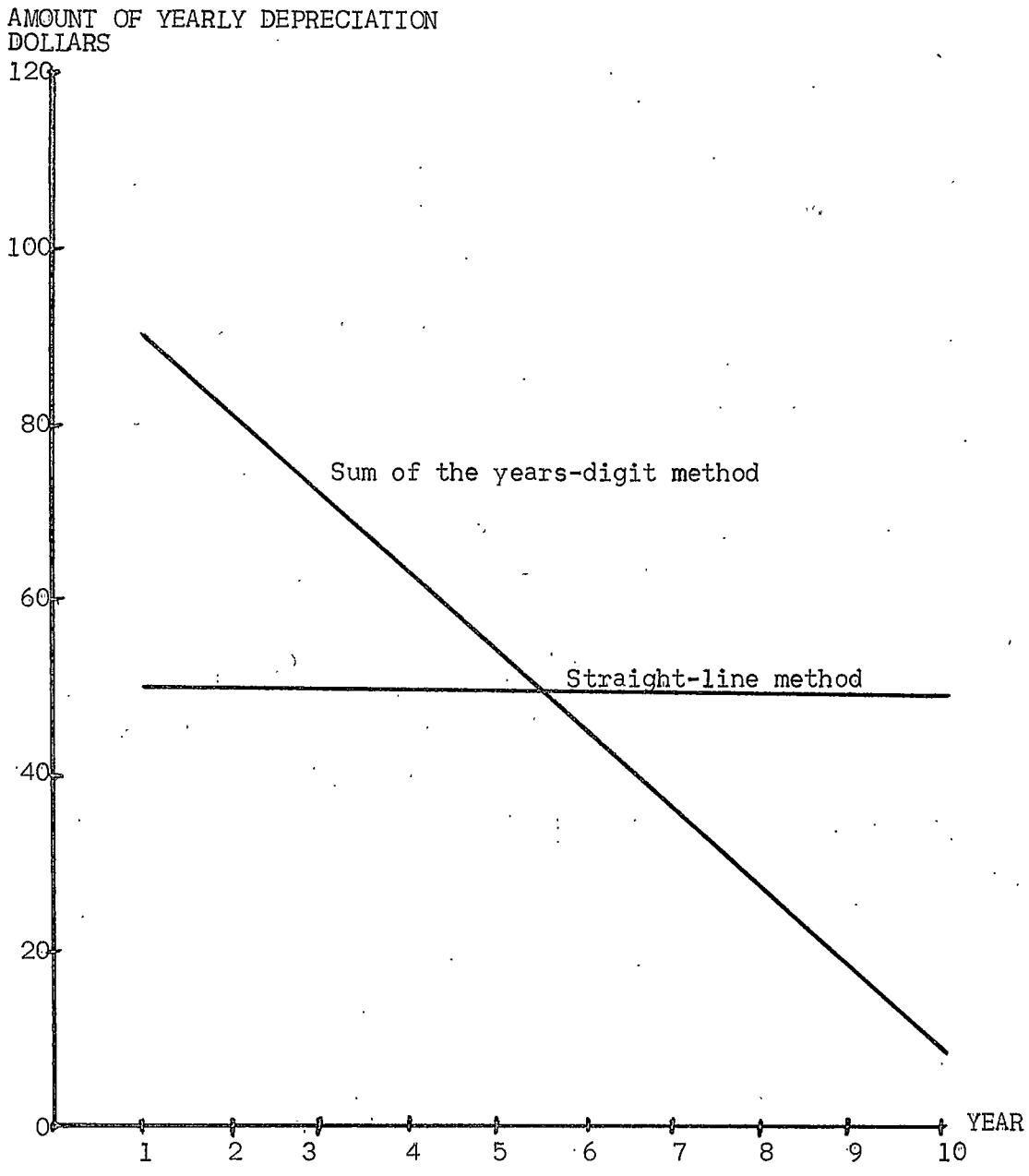


Figure 4. Schedule for the Depreciation of a Capital Asset with a Depreciable Value of $500.

a net operating profit. This would be in the period that is indicated by the area to the left of the point where the two lines intersect in Figure 4. The converse situation could result in the years that lie to the right of the point of intersection. This is what brings about a condition that is commonly known as a "paper loss" or a "paper gain," whichever the case may be for a particular situation. This amounts to a distortion of the financial operations of a firm as a consequence of an accounting manipulation.

Now the merits of allowing this situation is not to be credited or discredited in this analysis. The question here is whether this is another means by which capital will flow into the agricultural economy for the explicit purpose of finding a tax advantage. If so, what is the magnitude of the advantage to individuals in the various income groups and is it significantly high so as to be of concern?

For purposes of this study, it will be assumed the investor in the ranch firm manages the depreciation of the capital assets employing the sum of the years-digit method for all capital assets constructed for or by the taxpayer. The major portion of depreciable capital assets of a typical ranch firm would be, breeding livestock, machinery, and all capital improvements, such as fences, sheds, etc. There is one exception, in the depreciation of the buildings of the ranch firm, and this is found with reference to the farm dwelling. The farm dwelling is not depreciable for tax purposes if occupied by the farm or ranch owner. In this study, the investor with an outside source of taxable income is not considered

a resident operator of the ranch firm. Therefore, the farm dwelling will be occupied by a ranch manager and the ranch dwelling can be considered for tax purposes as a depreciable capital asset.

Now the justification of permitting the accelerated depreciation method was to allow the taxpayer a stepped-up tax free recovery of working capital and to facilitate a more rapid expansion of the enterprise. The motive to be investigated here is of somewhat different nature. This portion of the study is concerned with investigating the magnitude of the tax advantage stimulant offered by the accelerated depreciation provision with reference to an investor who may invest his funds in an agricultural enterprise to gain the privilege of writing down the book value of the firm's capital assets as a means of reducing the tax burden. The subsequent sale of the ranch firm is assumed to take place. This permits taking advantage of the capital gains provision.

For analytical purposes the time period used for the investigation of the accelerated depreciation method will be for the same period as the investigation of the soil and water conservation provision, a one year period. As was noted in Figure 4, the depreciation allowance using the sum of the years-digit method may permit the depreciation of the capital asset to exceed the actual depreciation. There is the possibility that the sum of the years-digit method may express the actual depreciation. The point here is that there exists the possibility that the stepped-up tax-free recovery of costs can exceed the amount of the actual depreciation in the early years of the asset. The analysis will assume that the actual year-to-year depreciation of the assets that

qualify for the liberalized depreciation follow the path indicated by the straight-line method. This will permit the selection of an amount of excess depreciation to use for the analysis to follow. The amount of this excess depreciation will be assumed to be $10,000.

Relative Returns to Alternative Investments

Figure 5 is presented to indicate the relative position of investing in a ranch firm or the investment in stocks or bonds. Note that the return from stocks or bonds would have to yield 9.62 percent when the taxpayer received zero taxable income from sources outside the investment fund to equal the monetary return from the investment in a ranch. This figure increases to 37.46 percent return when the taxable income from sources outside of the investment increases to $100,000. In other words, if the taxpayer is in the $100,000 a year income tax bracket from a fixed source, it would be necessary for the investor to discount the investment in a ranch firm by 31.46 percent for risk and uncertainty, etc., to be indifferent to stocks or bonds that yield 6 percent. This is precisely the same relationship found in Figure 1. The exception is that the percent return necessary at all levels of income has shifted upward. The difference between the two is simply a function of the excess depreciation which is now being considered in conjunction with the soil and water conservation expenditure. The point here is, that there need be no change in the nature of operation of the ranch firm and no necessary shift

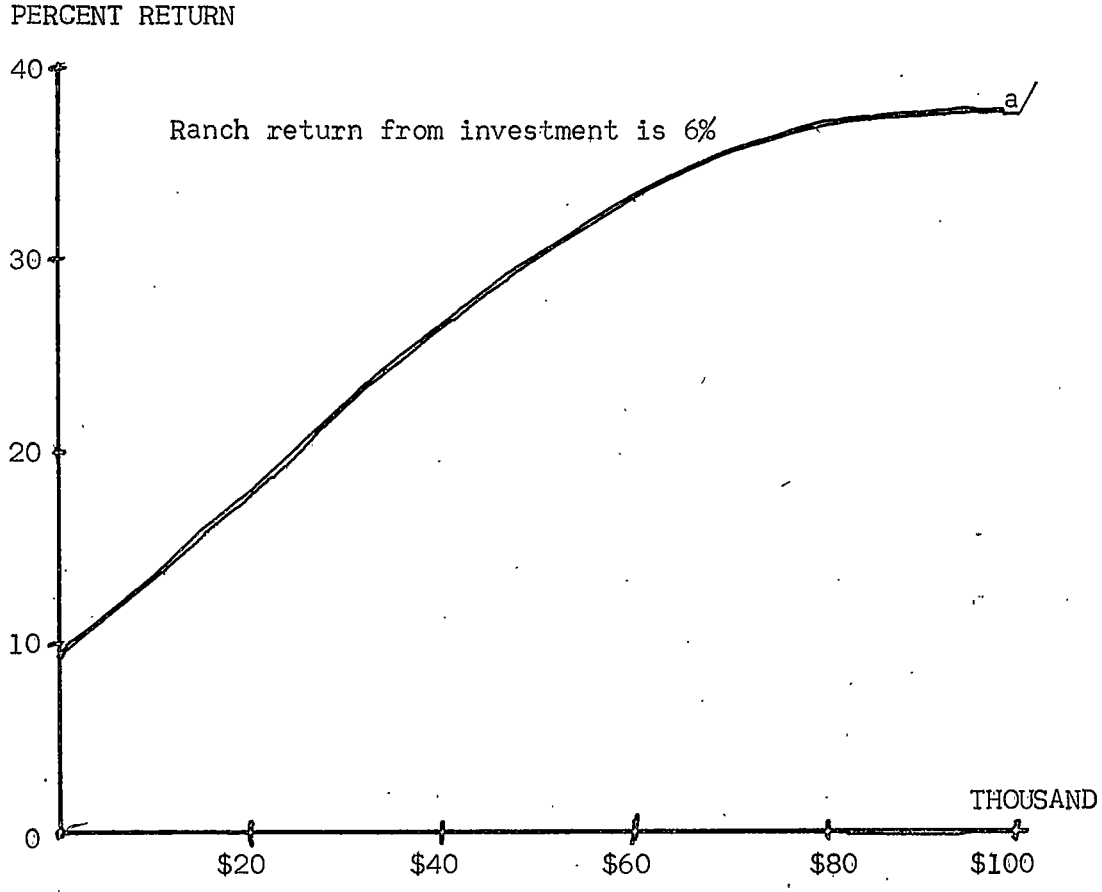


Figure 5. Relationships of the Percent Return Required on Investment in Stocks or Bonds as Opposed to Investment in a Ranch where the Soil and Water Conservation Expenditure and Sum of the Years-digit Depreciation Method Are Used for Tax Purposes.

a/ Rate of return calculated in Table I Appendix B.

in resource allocation within the firm, but there has been a "paper change" in the net operating income for tax purposes.[1/]

Figure 6 is presented to indicate that there exists no monetary incentive for the investor in the ranch firm to have the enterprise deliberately operated at a lower level of return simply because of federal income tax implications. In fact, quite the opposite is true. However, it is possible to operate the ranch firm at a zero rate of net income and gain a greater monetary reward than if the investment was in stocks or bonds that yield 5 percent per year. This would be the case, as indicated, when the taxable income from sources other than from the investment fund exceed the $80,000 federal income tax bracket.

The taxpayer in the different respective income groups gains a tax advantage in all three cases shown in Figure 6 because of the fact that the firm is not being taxed according to the real net operating income of the enterprise. In the case of the 6 percent return or $30,000 actual net income of the ranch firm, the taxpayer is using a "paper expense" of $25,000. This leaves the taxable income from the ranch firm at $5,000. When the ranch is sold, the $25,000 of income that could have been taxed if it were not for the special tax provisions is taxed as a capital gain on the sale of a capital asset.

In the case of the 3 percent return or $15,000 actual net income of the ranch firm, the taxpayer is using a "paper expense" of $25,000. The

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1/ The "paper change" is an expression used in reference to an accounting procedure in which a nonexistent expense to the firm appears and reduces the income.

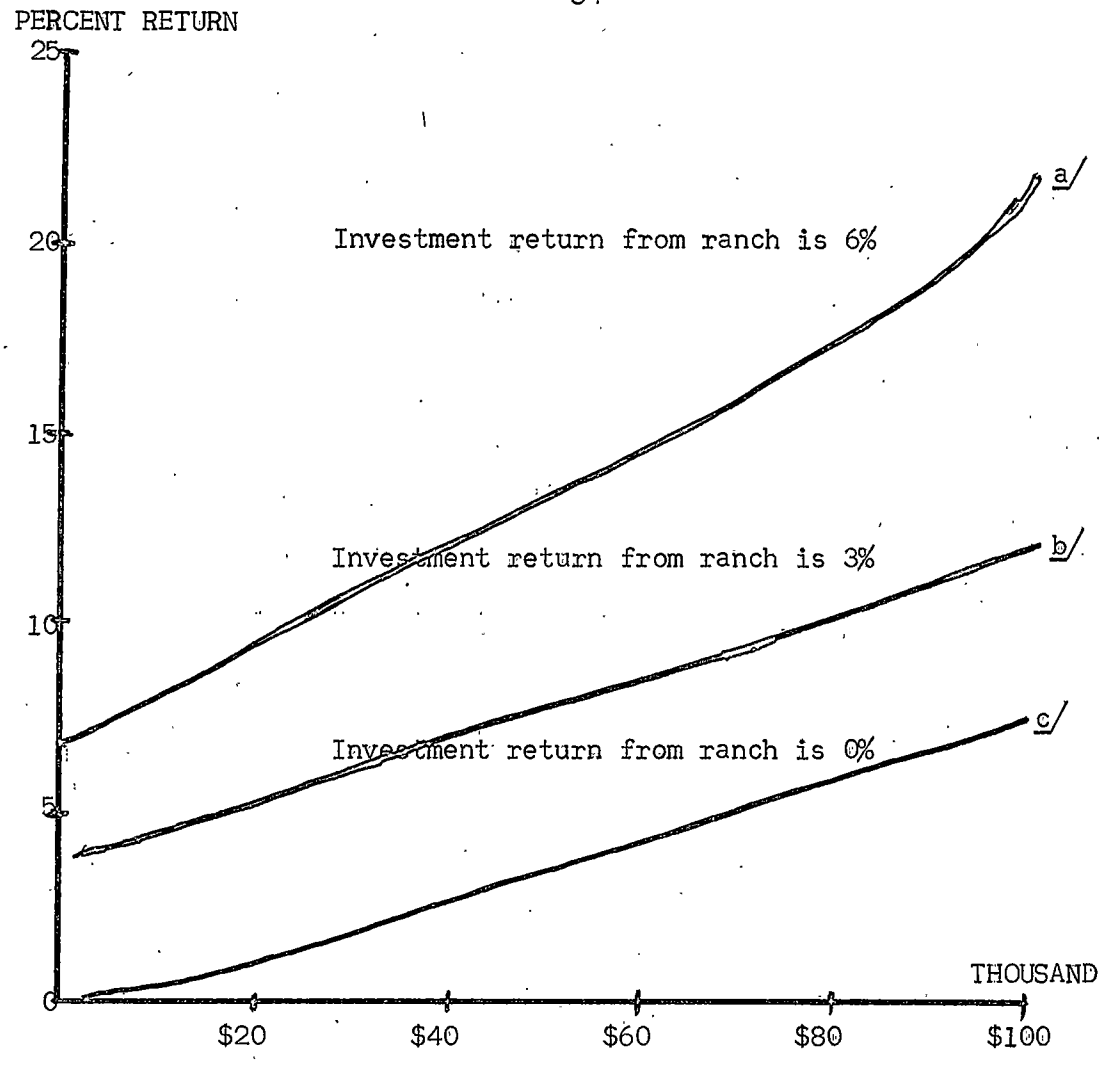


Figure 6. Rate of Return Necessary on Taxable Bonds or Stocks, at Various Taxable Income Groups when the Soil and Water Conservation Expenditure and Excess Depreciation Are Used in the Investment in the Ranch.

a/ Calculated from Table II Appendix B.

b/ Calculated from Table III Appendix B.

c/ Calculated from Table IV Appendix B.

result is that the taxpayer will show a net operating loss of $10,000 for tax purposes. This $10,000 loss will be used to reduce the taxable income from sources outside of the investment fund. When the ranch is sold, the gain on the sale will be taxed at the reduced rate provided by the capital gain provision. The net operating loss and the subsequent capital gain on the sale of a capital asset are both the result of a nonexistent expense that is used for tax purposes in the income and expense statement of the firm. This may be the place that the common misconception arises in the thinking of individuals who have the notion that a ranch firm could be deliberately operated at a loss to reduce the tax burden of a taxpayer in a high taxable income position. In reality, the firm is not being run at a loss. The net deficit in the operation of the ranch firm is for tax purposes and the actual capital accumulation in the final analysis are two distinct conditions. If this condition is not recognized, the misconception noted above will certainly follow.

Relationship of Percent Return Necessary on Investments and the Net Income After Taxes

The foregoing analysis has been concerned with isolating a rate of return necessary to establish a point of indifference between alternative investments. The percentage figure that has been used to indicate the variation in net returns from the alternative investments may be misleading. The percentage figure is the result of the federal income tax implications and is <u>not</u> a discount figure that would be applicable between

the alternative investments if there were no federal income taxes to take into consideration.

Figure 7 is presented to indicate the situation noted above. At the zero level of taxable income from sources outside of the investment fund, the actual net dollar difference in the investment in 6 percent stocks or bonds and the 6 percent yield from the ranch firm, after all federal income taxes, amounts to approximately $2,190 gain from the investment in the ranch. The amount of net difference is now .44 percent with respect to the total investment of $500,000. For purposes of this study, this percentage figure will be denoted by the term, "the net tax benefit rate." Now the return from stocks or bonds that would be required to equal the investment in the ranch firm is shown in Figure 6 as 6.85 or .85 percent greater than the 6 percent net yield before taxes from the investment in stocks or bonds. The .85 percent is an example of the term, "the gross tax benefit rate" that will be used to denote similar relationships.

The extreme discrepancy between the amount of the gross tax benefit rate and the net tax benefit rate, in this analysis, is at the $100,000 level of taxable income from sources outside of the investment fund. Figure 7 indicates, the net income advantage of operating the ranch at the 3 percent level, as opposed to investment in stocks or bonds that yield 6 percent. This amount is $5,925 in favor of the ranch investment when the taxable income from sources outside of the investment fund is $100,000. The net tax benefit rate is now 1.18 percent as opposed to

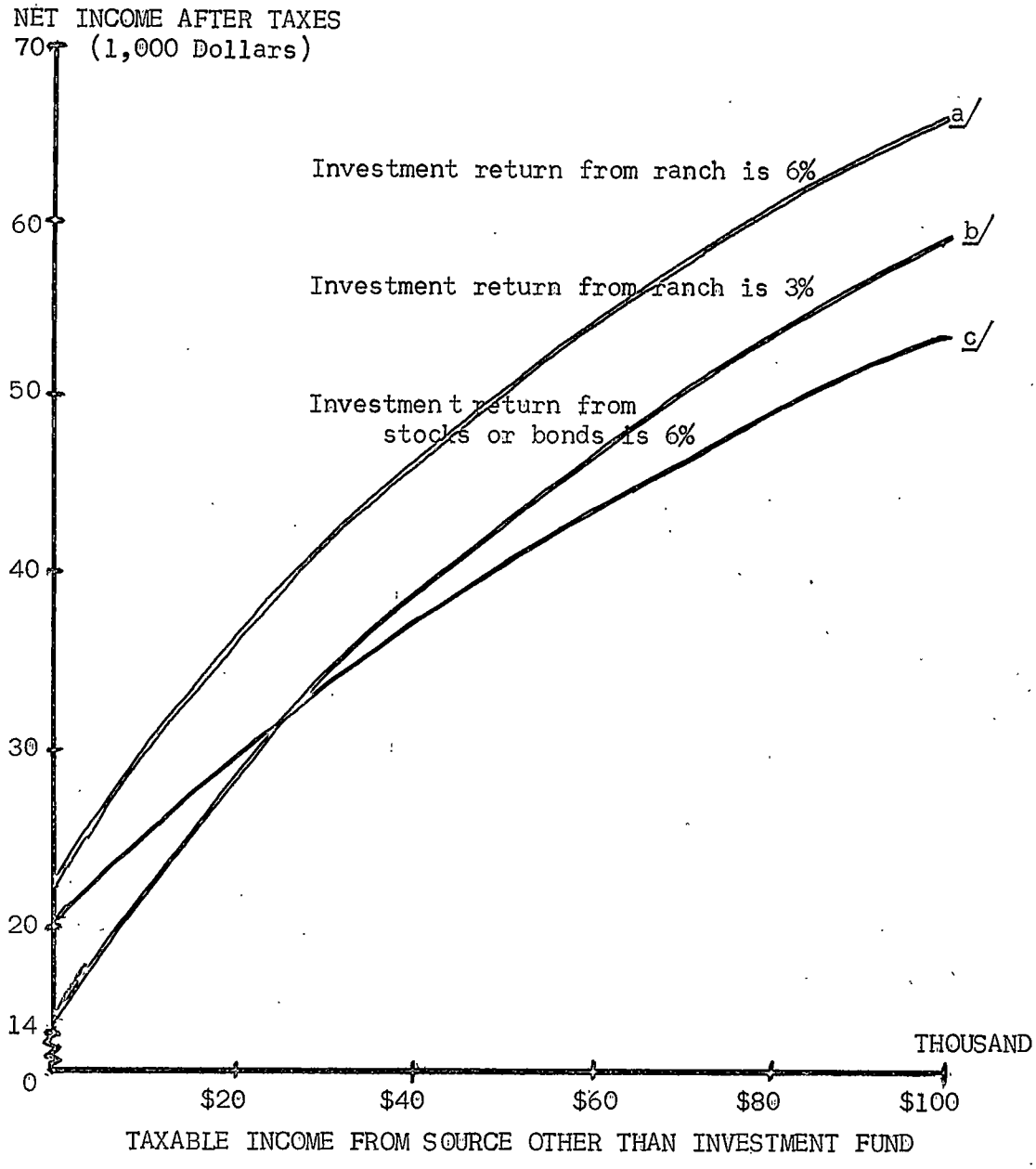


Figure 7. Relationship of Net Income After Taxes Using Alternative Investments.

a/ Calculated from Table II Appendix B

b/ Calculated from Table III Appendix B.

c/ Calculated from Table I Appendix B.

the gross tax benefit rate of 5.92 percent.[1/] For the 6 percent level of ranch yield at the $100,000 taxable income from sources outside of the investment fund, the net tax benefit rate is 2.56 percent while the gross tax benefit rate is 15.82 percent. The net income advantage is $12,800. Similar values can be estimated for all income situations and the rates established.

When the net tax benefit rate is multiplied by the total investment fund, a net tax benefit in dollar terms is established. This is the net income advantage referred to above. The gross tax benefit, in dollar terms, can be calculated from the gross tax benefit rate by using the same method. In certain situations, the conversion of percentage rates to dollar terms may help bring the analysis into a more favorable perspective.

Is the net tax benefit sufficiently large to attract the investment capital of the individual investor? Figure 8 is presented as a model for expressing the conditions when the tax benefit may be considered as sufficient to attract the investor of capital into the ranch enterprise. The following assumptions will be necessary for the analysis in Figure 8, (1) there is a fixed investment fund, (2) the investment of the funds must be all in stocks or bonds, or all in a ranch firm, i.e. an all or none situation, and (3) the usual assumptions of the diminishing marginal

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1/ The net tax benefit rate was found by dividing the net income gain after taxes ($5,925) by the total investment fund ($500,000). The gross tax benefit rate is the difference of what the stocks or bonds would have to yield and what they actually yield (11.92% - 6% = 5.92%).

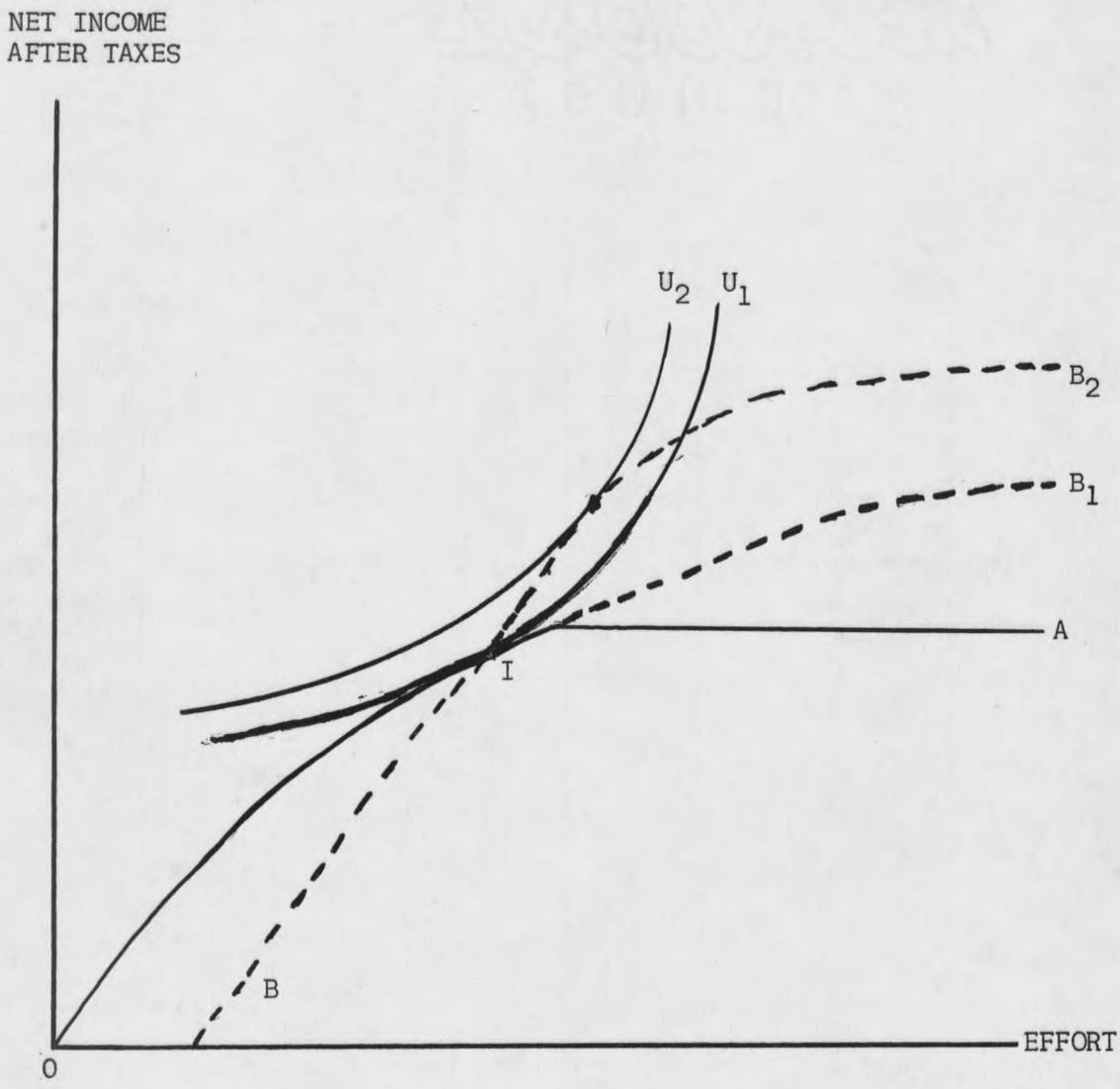


Figure 8. Utility Levels Available Using the Net Tax Benefit Between Alternative Investments.

A -- Attainable combination when investment is in taxable stocks or bonds.
B -- Attainable combination when investment is in ranch.
U -- Marginal rate of substitution of effort for net income after taxes.
I -- Lines BB_1 and A are tangent to U_1.

utility of money, the investor having a utility schedule, and other assumptions that usually go along with the economic theory associated with utility analysis.

Line A denotes the attainable combinations of net income and effort when the investment is in stocks or bonds. The slope of the line will be determined by the tax rate and the possible return to the amount of effort put forth in placing the investment. It seems reasonable that the return to additional effort, after a certain point, will not add to total revenue. The effort on the part of the individual investor will cease at the point of tangency of line A and U_1. This is the highest utility level that the individual can reach when the investment is made in stocks and bonds. The movement along line A will be identified as the "A route." The movement along the B line will be indicated as the "BB_1 route" or the "BB_2 route" depending upon the situation being analyzed.

The lines BB_1 and BB_2 are lines of attainable combinations when the investment is in a ranch. The net tax benefit is the assumed reason for lines BB_1 and BB_2 being above line A. Consider the "BB_1 route" with respect to the "A route." The individual investor will be indifferent at point I between the investment of his funds in stocks or bonds or in the ranch firm. To the right of point I, the net income is higher at all points of effort but is not sufficiently high to permit the investor to gain any additional utility. In fact, the investor would lower his utility if he should follow the "BB_1 route" from any point beyond point I.

The "BB_2 route" expresses the higher net tax benefit. If the net tax benefit is of sufficient size to permit the investor to follow the "BB_2 route," he will prefer the investment in the ranch. The "BB_2 route" allows the investor to move to a higher utility level, or as shown, to indifference curve U_2.

The Effect of the Special Tax Provisions on Tax Revenue

The gain of the individual investor may not be the same as the loss to society in tax revenue. When the ranch is operated at the 6 percent level, the gain to the individual, as indicated above, may be $12,800 while the loss in tax revenue due to the shifting of investment capital from stocks or bonds to the ranch firm is the same amount. But in the case when the ranch is operated at the 3 percent level, the gain to the individual investor is $5,925 while the loss in tax revenue is now $20,925.[1/] Since the loss in tax revenue in the above situation is $20,925 and the soil and water conservation expenditure is 15/25 of the total special tax provisions that were used, the real cost of bringing about the expenditure for soil and water conservation would be $12,555 loss in tax revenue. This amounts to $2,445 less than the cost if the government had performed the same operation rather than giving a tax benefit. It should be noted that the above example, is only an example, and the conditions will vary under different income positions. The fact remains, however, that a tax advantage to the individual may bring about

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1/ Calculated from Table III Appendix B and Table I Appendix A.

a use of certain resources in a fashion that might not take place if there existed no tax incentive.

Possible Influence of the Federal Income Tax on Land Values

Now there is a strong indication that the individual with an outside source of taxable income could, and possibly would, pay a higher price for a given ranch firm than an individual who is to derive his entire income and return from the investment as an owner-operator.

The usual method of determining the value of the ranch unit would be to first determine the earnings when the unit is operated as a typical operation. Capitalize the earnings figure arrived at to determine a basic value and make adjustments that are not reflected in the earnings of the ranch unit.[1/] It might seem that the net tax benefit rate or the gross tax benefit rate could be used in conjunction with the normal capitalization rate to establish some maximum price that the outside investor could pay for the given ranch unit. However, this does not seem to be the case. If the net or gross tax benefit rate were included in the capitalization rate, the basic value of the property is changed and this changes the basis of the property for consideration of the capital gain when the property is sold. If the net or gross tax benefit rate cannot be used in the capitalization portion, this leaves the adjustment section of the appriasal method to be used in establishing the additional increment of value. Again there is no absolute method that is evident in this

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1/ Crouse and Everett, Rural Appraisals, Prentice-Hall, Inc., Englewood Cliffs, New Jersey, October 1957, pp. 24-54.

study that will "break-out" the value. The addition as an adjustment will again change the basis of the value of the property for the calculation of the capital gain and may alter the income tax bracket that was used in calculating the amount of gain from investing in the ranch firm. There does exist, however, the indication that some positive adjustment could be made and not remove the entire advantage of the investment in a ranch.

Land values have increased in the United States by 6 percent between March 1957 and March 1958.[1/] There are some indications, in this study, that the increase in these land values might be partially a result of the implications of the federal income tax.

1/ United States Department of Agriculture, Current Developments in the Farm Real Estate Market, Agricultural Research Service, ARS 43-74 (CD-49), May 1958, p. 2, Figure 1.

PART IV

SUMMARY AND CONCLUSIONS

Summary

A general description of the tax taws was presented, together with the necessary assumptions to qualify the use of these regulations for special tax handling. The possible implications associated with the investment of capital in a ranch firm with respect to the different taxable income positions of the investor were presented.

The possible tax advantage of investing in a ranch as opposed to the investment in taxable bonds or stocks was isolated. The use of the tax schedule for a separate return was used to demonstrate the maximum tax advantage. The relationship found when the separate return was used could be visualized as the result that would become evident if the tax schedule for a joint return had been used in the higher tax brackets.

The relationship of the necessary magnitude of the net tax benefit with respect to the investment in stocks or bonds was presented in a theoretical diagram. This diagram could be used with respect to time preference, risk and uncertainty, etc., to analyze the relative returns from alternative investments when the net tax benefit is being investigated.

The possible decisions of the management of the capital resource with respect to the use of the earnings of the ranch firm when the investor is an owner-operator or an outside investor was given some consideration. The possible decisions associated with the allocation of the earnings of

the firm was found to differ with respect to the owner-operator and the outside investor.

The possible influence of the investor of funds in the land market and the loss in tax revenue to society compared to the gain of the individual was investigated.

Conclusions

The conclusions of this study verify the hypothesis presented in the beginning of this report.

The tax advantage stimulant to the individual with an outside source of income associated with investing in a ranch firm seems to be of sufficient strength to induce the shifting of the capital resource. The optimum allocation of resources with respect to the operation of the ranch firm may not take place. Further, the marginal disutility associated with the necessary effort of gaining the net tax benefit increments may influence the management of the firm to operate at some level that would not be the most profitable point if there were no federal income tax.

It was found that it is possible for the investor with an outside source of income to increase his capital accumulation through investing in a ranch that has a net operating loss as opposed to investing in taxable bonds or stocks that return a fixed rate. This would be in the extremely high taxable income brackets. The possible inference that the firm will purposely be run at a level to lose money as a consequence of the federal income tax would have to be rejected. This with respect to capital accumulation. There was no indication of this situation found in

this study. A paper loss does not represent a change in capital accumulation of the firm.

Future Research

There is a definite need, in the research effort, to go beyond this study and measure or gather empirical information about the association of the federal income tax and the management of resources. The relative importance of the federal income tax as a causal factor associated with resource allocation is not measured. The conclusion was reached in this study that the federal income tax laws will encourage certain movements of resources. There exist no acceptable empirical data to support any conclusion that these laws are being used with sufficient magnitude to be of concern. There is likewise no information to the contrary.

The collection of empirical data is one of the major obstacles in the path of investigating the use of tax provisions. The survey technique will present problems when the interviewer requests information on methods used by the taxpayer to reduce his tax burden.

The investigation of absentee land owners of large tracts of land might bring forth some interesting results with respect to the tax position of the owner. There may be more than just the glamour motive associated with ownership of a ranch by individuals in high income tax brackets.

There is a definite need for research to investigate the management of resources by the owner-operator. How does the farmer make decisions concernings use of the accelerated depreciation methods for tax purposes? What income group of farmers might benefit from using these methods? What

are the advantages of the corporation farm with respect to the federal income tax?

APPENDICES

APPENDIX A

TABLE I. BUDGET SUMMARY OF VARIOUS TAXABLE INCOME GROUPS WITH RESPECT TO NET INCOME AFTER TAXES. TAXABLE INCOME INCLUDES RETURN FROM $500,000 INVESTMENT IN 6 PERCENT STOCKS OR BONDS AND A FIXED TAXABLE INCOME FROM SOURCES OUTSIDE OF THE INVESTMENT FUND.

Fixed Taxable Income From Source Other Than Investment	Income From Investment in Stocks or Bonds	Total Taxable Income From All Sources	Net Income After Taxes[a]	Rate of Interest Required on Investment Other Than Stocks or Bonds
Dollars	Dollars	Dollars	Dollars	Percent
0	30,000	30,000	20,540	6
2,000	30,000	32,000	21,600	6
5,000	30,000	35,000	23,100	6
10,000	30,000	40,000	25,480	6
15,000	30,000	45,000	27,650	6
20,000	30,000	50,000	29,700	6
25,000	30,000	55,000	31,660	6
30,000	30,000	60,000	33,560	6
35,000	30,000	65,000	35,430	6
40,000	30,000	70,000	37,180	6
45,000	30,000	75,000	38,930	6
55,000	30,000	85,000	42,070	6
65,000	30,000	95,000	44,960	6
75,000	30,000	105,000	47,610	6
85,000	30,000	115,000	50,110	6
100,000	30,000	130,000	53,560	6

[a] Using the tax rate schedule for a married person filing jointly or a single person qualifying as a surviving spouse -- 1959.

TABLE II. BUDGET SUMMARY OF INDIVIDUALS IN VARIOUS TAXABLE INCOME GROUPS WITH $500,000 INVESTMENT IN A RANCH THAT RETURNS 6 PERCENT BEFORE THE SPECIAL EXPENDITURE FOR SOIL AND WATER CONSERVATION.

Fixed Taxable Income From Source Other Than Investment	Net Income From Ranch Before Soil and Water Expenditure	Soil and Water Expenditure	Taxable Income Capital Gain Excluded	Net Income After Taxes Before Capital Gain	Net Income From Capital Gain[a]	Total Net Income After Taxes[b]	Gross Income Required To Equal Total Net Income	Rate of Interest If Investment Is In Taxable Stocks or Bonds[c]
Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Percent
0	30,000	15,000	15,000	10,270	11,250	21,520	44,100	8.82
2,000	30,000	15,000	17,000	11,300	11,250	22,550	47,750	9.15
5,000	30,000	15,000	20,000	12,740	11,250	23,990	53,250	9.65
10,000	30,000	15,000	25,000	14,850	11,250	26,100	61,800	10.36
15,000	30,000	15,000	30,000	16,780	11,250	28,030	70,800	11.16
20,000	30,000	15,000	35,000	18,590	11,250	29,840	80,750	12.15
25,000	30,000	15,000	40,000	20,260	11,250	31,510	91,000	13.20
30,000	30,000	15,000	45,000	21,780	11,250	33,030	103,200	14.64
35,000	30,000	15,000	50,000	23,180	11,250	34,430	115,900	16.18
40,000	30,000	15,000	55,000	24,430	11,250	35,680	127,250	17.45
45,000	30,000	15,000	60,000	25,680	11,250	36,930	138,650	18.73
55,000	30,000	15,000	70,000	27,880	11,250	39,130	159,500	20.90
65,000	30,000	15,000	80,000	29,780	11,250	41,030	178,500	22.70
75,000	30,000	15,000	90,000	31,380	11,250	42,630	194,500	23.90
85,000	30,000	15,000	100,000	32,680	11,250	43,930	208,300	24.66
100,000	30,000	15,000	115,000	34,330	11,250	45,580	226,750	25.35

a/ Using the alternative method for calculation of capital gain.

b/ Using the tax rate schedule for a married person filing a separate return or a single person not qualifying as head of household or surviving spouse -- 1959.

c/ Calculated by dividing total investment ($500,000) by the net difference between the gross income required to equal total net income and the fixed taxable income from source other than investment.

TABLE III. BUDGET SUMMARY OF INDIVIDUALS IN VARIOUS TAXABLE INCOME GROUPS WITH $500,000 INVESTMENT IN A RANCH THAT RETURNS 6 PERCENT BEFORE THE SPECIAL EXPENDITURE FOR SOIL AND WATER CONSERVATION.

Fixed Taxable Income From Source Other Than Investment	Net Income From Ranch Before Soil and Water Expenditure	Soil and Water Expenditure	Taxable Income Capital Gain Excluded	Net Income After Taxes Before Capital Gain	Net Income From Capital Gain[a]	Total Net Income After Taxes[b]	Gross Income Required To Equal Total Net Income	Rate of Interest If Investment Is In Taxable Stocks or Bonds[c]
Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Percent
0	30,000	15,000	15,000	11,380	11,250	22,630	34,050	6.81
2,000	30,000	15,000	17,000	12,740	11,250	23,990	36,800	6.96
5,000	30,000	15,000	20,000	14,720	11,250	25,970	41,200	7.24
10,000	30,000	15,000	25,000	17,770	11,250	29,020	48,350	7.67
15,000	30,000	15,000	30,000	20,540	11,250	31,790	55,300	8.06
20,000	30,000	15,000	35,000	23,100	11,250	34,350	62,170	8.43
25,000	30,000	15,000	40,000	25,480	11,250	36,730	68,700	8.74
30,000	30,000	15,000	45,000	27,650	11,250	38,900	74,925	8.98
35,000	30,000	15,000	50,000	29,700	11,250	40,950	81,400	9.28
40,000	30,000	15,000	55,000	31,660	11,250	42,810	87,700	9.54
45,000	30,000	15,000	60,000	33,560	11,250	44,810	94,475	9.90
55,000	30,000	15,000	70,000	37,180	11,250	48,430	108,300	10.66
65,000	30,000	15,000	80,000	40,520	11,250	51,770	121,860	11.37
75,000	30,000	15,000	90,000	43,560	11,250	54,810	135,680	12.14
85,000	30,000	15,000	100,000	46,360	11,250	57,610	149,760	12.95
100,000	30,000	15,000	115,000	50,110	11,250	61,360	177,250	15.45

a/ Using the alternative method for calculation of capital gain.

b/ Using the tax rate schedule for a married person filing jointly or single person qualifying as a surviving spouse -- 1959.

c/ Calculated by dividing total investment ($500,000) by the net difference between the gross income required to equal total net income and the fixed taxable income from source other than investment.

TABLE IV. BUDGET SUMMARY OF INDIVIDUALS IN VARIOUS TAXABLE INCOME GROUPS WITH $500,000 INVESTMENT IN A RANCH THAT RETURNS 6 PERCENT BEFORE THE SPECIAL EXPENDITURE FOR SOIL AND WATER CONSERVATION.

Fixed Taxable Income From Source Other Than Investment	Net Income From Ranch Before Soil and Water Expenditure	Soil and Water Expenditure	Taxable Income Capital Gain Included	Income After Taxes	Net Capital Gain Not Taxed[a]	Total Net Income After Taxes[b]	Gross Income Required To Equal Total Net Income	Rate of Interest If Investment Is In Taxable Stocks or Bonds[c]
Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Percent
0	30,000	15,000	22,500	16,270	7,500	23,770	36,850	7.37
2,000	30,000	15,000	24,500	17,485	7,500	24,985	38,900	7.38
5,000	30,000	15,000	27,500	19,195	7,500	26,695	42,800	7.56
10,000	30,000	15,000	32,500	21,850	7,500	29,350	49,200	7.84
15,000	30,000	15,000	37,500	24,305	7,500	31,805	55,450	8.09
20,000	30,000	15,000	42,500	26,580	7,500	34,080	61,300	8.26
25,000	30,000	15,000	47,500	28,675	7,500	36,175	67,100	8.42
30,000	30,000	15,000	52,500	30,710	7,500	38,210	72,950	8.59
35,000	30,000	15,000	57,500	32,600	7,500	40,100	78,600	8.72
40,000	30,000	15,000	62,500	34,510	7,500	42,010	84,800	8.96
45,000	30,000	15,000	67,500	36,305	7,500	43,805	90,850	9.17
55,000	30,000	15,000	77,500	39,745	7,500	47,245	103,550	9.71
65,000	30,000	15,000	87,500	42,845	7,500	50,345	115,950	10.19
75,000	30,000	15,000	97,500	45,660	7,500	53,160	128,180	10.64
85,000	30,000	15,000	107,500	48,235	7,500	55,735	139,890	10.98
100,000	30,000	15,000	122,500	51,910	7,500	59,410	159,210	11.84

a/ Using the standard method for calculation of capital gain.

b/ Using the tax rate schedule for a married person filing jointly or single person qualifying as a surviving spouse -- 1959.

c/ Calculated by dividing total investment ($500,000) by the net difference between the gross income required to equal total net income and the fixed taxable income from source other than investment.

TABLE V. BUDGET SUMMARY OF INDIVIDUALS IN VARIOUS TAXABLE INCOME GROUPS WITH $500,000 INVESTMENT IN A RANCH THAT RETURNS 3 PERCENT BEFORE THE SPECIAL EXPENDITURE FOR SOIL AND WATER CONSERVATION.

Fixed Taxable Income From Source Other Than Investment	Net Income From Ranch Before Soil and Water Expenditure	Soil and Water Expenditure	Taxable Income Capital Gain Included	Income After Taxes	Net Capital Gain Not Taxed[a]	Total Net Income After Taxes[b]	Gross Income Required To Equal Total Net Income	Rate of Interest If Investment Is In Taxable Stocks or Bonds[c]
Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Percent
0	15,000	15,000	7,500	5,930	7,500	13,430	18,050	3.61
2,000	15,000	15,000	9,500	7,430	7,500	14,930	20,250	3.65
5,000	15,000	15,000	12,500	9,630	7,500	17,130	23,850	3.77
10,000	15,000	15,000	17,500	13,070	7,500	20,570	30,050	4.01
15,000	15,000	15,000	22,500	16,270	7,500	23,770	36,400	4.28
20,000	15,000	15,000	27,500	19,195	7,500	26,695	42,760	4.55
25,000	15,000	15,000	32,500	21,850	7,500	29,350	49,150	4.83
30,000	15,000	15,000	37,500	24,305	7,500	31,805	55,400	5.08
35,000	15,000	15,000	42,500	26,580	7,500	34,080	61,350	5.27
40,000	15,000	15,000	47,500	28,675	7,500	36,175	67,050	5.41
45,000	15,000	15,000	52,500	30,710	7,500	38,210	72,950	5.59
55,000	15,000	15,000	62,500	34,510	7,500	42,010	84,800	5.96
65,000	15,000	15,000	72,500	38,055	7,500	45,555	97,150	6.43
75,000	15,000	15,000	82,500	41,295	7,500	48,795	109,750	6.95
85,000	15,000	15,000	92,500	44,260	7,500	51,760	121,820	7.36
100,000	15,000	15,000	107,500	48,235	7,500	55,735	139,875	7.98

[a] Using the standard method for calculation of capital gain.

[b] Using the tax rate schedule for a married person filing jointly or single person qualifying as a surviving spouse -- 1959.

[c] Calculated by dividing total investment ($500,000) by the net difference between the gross income required to equal total net income and the fixed taxable income from source other than investment.

TABLE VI. BUDGET SUMMARY OF INDIVIDUALS IN VARIOUS TAXABLE INCOME GROUPS WITH $500,000 INVESTMENT IN A RANCH THAT RETURNS 0 PERCENT BEFORE THE SPECIAL EXPENDITURE FOR SOIL AND WATER CONSERVATION.

Fixed Taxable Income From Source Other Than Investment	Net Income From Ranch Before Soil and Water Expenditure	Soil and Water Expenditure	Taxable Income Capital Gain Included	Income After Taxes	Net Capital Gain Not Taxed[a]	Total Net Income After Taxes[b]	Gross Income Required To Equal Total Net Income	Rate of Interest If Investment Is In Taxable Stocks or Bonds[c]
Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Percent
0	0	15,000	-7,500	-7,500	7,500	0	---	---
2,000	0	15,000	-5,500	-5,500	7,500	2,000	2,500	.10
5,000	0	15,000	-2,500	-2,500	7,500	5,000	6,308	.26
10,000	0	15,000	2,500	2,000	7,500	9,500	12,314	.46
15,000	0	15,000	7,500	5,930	7,500	13,430	18,050	.61
20,000	0	15,000	12,500	9,630	7,500	17,130	23,900	.78
25,000	0	15,000	17,500	13,070	7,500	20,570	30,100	1.02
30,000	0	15,000	22,500	16,270	7,500	23,770	36,350	1.27
35,000	0	15,000	27,500	19,195	7,500	26,695	42,275	1.46
40,000	0	15,000	32,500	21,850	7,500	29,350	49,100	1.82
45,000	0	15,000	37,500	24,305	7,500	31,805	55,400	2.08
55,000	0	15,000	47,500	28,675	7,500	36,175	67,200	2.44
65,000	0	15,000	57,500	32,610	7,500	40,110	78,700	2.74
75,000	0	15,000	67,500	36,305	7,500	43,805	90,900	3.18
85,000	0	15,000	77,500	39,745	7,500	47,245	103,550	3.71
100,000	0	15,000	92,500	44,260	7,500	51,760	121,820	4.36

[a] Using the standard method for calculation of capital gain.

[b] Using the tax rate schedule for a married person filing jointly or single person qualifying as a surviving spouse -- 1959.

[c] Calculated by dividing total investment ($500,000) by the net difference between the gross income required to equal total net income and the fixed taxable income from source other than investment.

TABLE I. BUDGET SUMMARY OF INDIVIDUALS IN VARIOUS TAXABLE INCOME GROUPS WITH $500,000 INVESTMENT IN A RANCH THAT RETURNS 6 PERCENT BEFORE THE SPECIAL EXPENDITURE FOR SOIL AND WATER CONSERVATION AND EXCESS DEPRECIATION.

Fixed Taxable Income From Source Other Than Investment	Net Income From Ranch Before Special Expenses	Soil and Water Expenditure	Depr. Expense in Excess of Actual Depr.	Taxable Income With Capital Gain Excluded	Net Income After Taxes Before Capital Gain	Net Income From Capital Gain[a]	Total Net Income After Taxes[b]	Gross Income Required To Equal Total Net Income	Rate of Interest Required if Investment Is In Taxable Bonds or Stocks[c]
Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Percent
0	30,000	15,000	10,000	5,000	3,900	18,750	22,650	48,100	9.62
2,000	30,000	15,000	10,000	7,000	5,340	18,750	24,090	53,600	10.32
5,000	30,000	15,000	10,000	10,000	7,360	18,750	26,110	61,900	11.38
10,000	30,000	15,000	10,000	15,000	10,270	18,750	29,020	76,000	13.20
15,000	30,000	15,000	10,000	20,000	12,740	18,750	31,490	90,650	15.13
20,000	30,000	15,000	10,000	25,000	14,850	18,750	33,600	108,350	17.67
25,000	30,000	15,000	10,000	30,000	16,780	18,750	35,530	125,900	20.18
30,000	30,000	15,000	10,000	35,000	18,590	18,750	37,340	142,350	22.47
35,000	30,000	15,000	10,000	40,000	20,260	18,750	39,010	158,300	24.66
40,000	30,000	15,000	10,000	45,000	21,780	18,750	40,530	173,500	26.70
45,000	30,000	15,000	10,000	50,000	23,180	18,750	41,930	187,500	28.50
55,000	30,000	15,000	10,000	60,000	25,680	18,750	44,430	213,900	31.78
65,000	30,000	15,000	10,000	70,000	27,880	18,750	46,630	238,350	34.67
75,000	30,000	15,000	10,000	80,000	29,780	18,750	48,530	255,900	36.18
85,000	30,000	15,000	10,000	90,000	31,380	18,750	50,130	270,450	37.09
100,000	30,000	15,000	10,000	105,000	33,230	18,750	51,980	287,300	37.46

[a] Using the alternative method for calculation of capital gain.

[b] Using the tax rate schedule for a married person filing a separate return or a single person not qualifying as head of household or surviving spouse -- 1959.

[c] Calculated by dividing total investment ($500,000) by the net difference between the gross income required to equal total net income and the fixed taxable income from source other than investment.

TABLE II. BUDGET SUMMARY OF INDIVIDUALS IN VARIOUS TAXABLE INCOME GROUPS WITH $500,000 INVESTMENT IN A RANCH THAT RETURNS 6 PERCENT BEFORE THE SPECIAL EXPENDITURE FOR SOIL AND WATER CONSERVATION AND EXCESS DEPRECIATION.

Fixed Taxable Income From Source Other Than Investment	Net Income From Ranch Before Special Expenses	Soil and Water Expenditure	Depr. Expense In Excess of Actual Depr.	Taxable Income With Capital Gain Excluded	Net Income After Taxes Before Capital Gain	Net Income From Capital Gain[a]	Total Net Income After Taxes[b]	Gross Income Required To Equal Total Net Income	Rate of Interest Required If Investment Is In Taxable Bonds or Stocks[c]
Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Percent
0	30,000	15,000	10,000	5,000	3,980	18,750	22,730	34,250	6.85
2,000	30,000	15,000	10,000	7,000	5,540	18,750	24,290	37,475	7.09
5,000	30,000	15,000	10,000	10,000	7,800	18,750	26,550	42,450	7.49
10,000	30,000	15,000	10,000	15,000	11,380	18,750	30,130	51,075	8.22
15,000	30,000	15,000	10,000	20,000	14,720	18,750	33,470	59,775	8.96
20,000	30,000	15,000	10,000	25,000	17,770	18,750	36,520	68,125	9.64
25,000	30,000	15,000	10,000	30,000	20,540	18,750	39,290	76,025	10.20
30,000	30,000	15,000	10,000	35,000	23,100	18,750	41,850	84,300	10.86
35,000	30,000	15,000	10,000	40,000	25,480	18,750	44,230	92,400	11.48
40,000	30,000	15,000	10,000	45,000	27,650	18,750	46,400	100,160	12.03
45,000	30,000	15,000	10,000	50,000	29,700	18,750	48,450	108,360	12.67
55,000	30,000	15,000	10,000	60,000	33,560	18,750	52,310	124,320	13.86
65,000	30,000	15,000	10,000	70,000	37,180	18,750	55,930	140,840	15.16
75,000	30,000	15,000	10,000	80,000	40,520	18,750	59,270	158,475	16.70
85,000	30,000	15,000	10,000	90,000	43,560	18,750	62,310	177,190	18.43
100,000	30,000	15,000	10,000	105,000	47,610	18,750	66,360	209,090	21.82

a/ Using the alternative method for calculation of capital gain.

b/ Using the tax rate schedule for a married person filing jointly or single person qualifying as a surviving spouse -- 1959.

c/ Calculated by dividing total investment ($500,000) by the net difference between the gross income required to equal total net income and the fixed taxable income from source other than investment.

TABLE III. BUDGET SUMMARY OF INDIVIDUALS IN VARIOUS TAXABLE INCOME GROUPS WITH $500,000 INVESTMENT IN A RANCH THAT RETURNS 3 PERCENT BEFORE THE SPECIAL EXPENDITURE FOR SOIL AND WATER CONSERVATION AND EXCESS DEPRECIATION.

Fixed Taxable Income From Source Other Than Investment	Net Income From Ranch Before Special Expenses	Soil and Water Expenditure	Depr. Expense In Excess of Actual Depr.	Taxable Income With Capital Gain Included	Income After Taxes	Net Income From Capital Gain[a]	Total Net Income After Taxes[b]	Gross Income Required To Equal Total Net Income	Rate of Interest Required if Investment Is In Taxable Bonds or Stocks[c]
Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Percent
0	15,000	15,000	10,000	2,500	2,000	12,500	14,500	19,167	3.83
2,000	15,000	15,000	10,000	4,500	3,590	12,500	16,090	22,210	4.04
5,000	15,000	15,000	10,000	7,500	5,930	12,500	18,430	26,160	4.23
10,000	15,000	15,000	10,000	12,500	9,630	12,500	22,130	33,060	4.61
15,000	15,000	15,000	10,000	17,500	13,070	12,500	25,570	39,225	4.84
20,000	15,000	15,000	10,000	22,500	16,270	12,500	28,770	47,750	5.55
25,000	15,000	15,000	10,000	27,500	19,195	12,500	31,695	55,090	6.01
30,000	15,000	15,000	10,000	32,500	21,850	12,500	34,350	62,100	6.42
35,000	15,000	15,000	10,000	37,500	24,305	12,500	36,805	69,900	6.98
40,000	15,000	15,000	10,000	42,500	26,580	12,500	39,080	75,900	7.18
45,000	15,000	15,000	10,000	47,500	28,675	12,500	41,175	82,100	7.42
55,000	15,000	15,000	10,000	57,500	32,610	12,500	45,110	95,650	8.13
65,000	15,000	15,000	10,000	67,500	36,305	12,500	48,805	109,800	8.96
75,000	15,000	15,000	10,000	77,500	39,745	12,500	51,975	122,200	9.44
85,000	15,000	15,000	10,000	87,500	42,845	12,500	55,345	138,100	10.62
100,000	15,000	15,000	10,000	102,500	46,985	12,500	59,485	159,600	11.92

a/ Using the standard method for calculation of capital gain.

b/ Using the tax rate schedule for a married person filing jointly or single person qualifying as a surviving spouse -- 1959.

c/ Calculated by dividing total investment ($500,000) by the net difference between the gross income required to equal total net income and the fixed taxable income from source other than investment.

TABLE IV. BUDGET SUMMARY OF INDIVIDUALS IN VARIOUS TAXABLE INCOME GROUPS WITH $500,000 INVESTMENT IN A RANCH THAT RETURNS 3 PERCENT BEFORE THE SPECIAL EXPENDITURE FOR SOIL AND WATER CONSERVATION AND EXCESS DEPRECIATION.

Fixed Taxable Income From Source Other Than Investment	Net Income From Ranch Before Special Expenses	Soil and Water Expenditure	Depr. Expense in Excess of Actual Depr.	Taxable Income With Capital Gain Included	Income After Taxes	Net Income From Capital Gain[a]	Total Net Income After Taxes[b]	Gross Income Required To Equal Total Net Income	Rate of Interest Required if Investment Is In Taxable Bonds or Stocks[c]
Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Percent
0	0	15,000	10,000	-12,500	-12,500	12,500	0	---	---
2,000	0	15,000	10,000	-10,500	-10,500	12,500	2,000	2,500	.10
5,000	0	15,000	10,000	- 7,500	- 7,500	12,500	5,000	6,310	.26
10,000	0	15,000	10,000	- 2,500	- 2,500	12,500	10,000	13,025	.60
15,000	0	15,000	10,000	2,500	2,000	12,500	14,500	19,650	.93
20,000	0	15,000	10,000	7,500	5,930	12,500	18,430	26,150	1.23
25,000	0	15,000	10,000	12,500	9,630	12,500	22,130	33,050	1.61
30,000	0	15,000	10,000	17,500	13,070	12,500	25,570	40,200	2.04
35,000	0	15,000	10,000	22,500	16,270	12,500	28,770	47,770	2.55
40,000	0	15,000	10,000	27,500	19,195	12,500	31,695	55,050	3.01
45,000	0	15,000	10,000	32,500	21,850	12,500	34,350	62,050	3.41
55,000	0	15,000	10,000	42,500	26,580	12,500	39,080	75,450	4.09
65,000	0	15,000	10,000	52,500	30,710	12,500	43,210	88,750	4.75
75,000	0	15,000	10,000	62,500	34,510	12,500	47,010	102,550	5.51
85,000	0	15,000	10,000	72,500	38,055	12,500	50,555	116,575	6.32
100,000	0	15,000	10,000	87,500	42,845	12,500	55,345	138,100	7.62

a/ Using the standard method for calculation of capital gain.

b/ Using the tax rate schedule for a married person filing jointly or single person qualifying as a surviving spouse -- 1959.

c/ Calculated by dividing total investment ($500,000) by the net difference between the gross income required to equal total net income and the fixed taxable income from source other than investment.

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