ABSTRACT

A COMPUTER SIMULATION OF
SEVEN ESTATE PLANNING TECHNIQUES

By

Edward J. Schnee

The purpose of this study was to test seven general "rules-of-thumb" used by practitioners and educators. The seven were:

A. Pre-death
   1. Marital Deduction
   2. Gifts "in Contemplation of Death"
   3. Inter Vivos Trusts

B. Post-Mortem
   1. First Income Tax Year
   2. Deduction of Administration Expenses
   3. Alternate Valuation Date
   4. Waiver of Executor's Commission

A simulation model was constructed for each of the general "rules-of-thumb". The models generated the data which was used to test whether or not the rules provided optimal decisions.

The rule of thumb for marital deduction is to transfer exactly 50% to the surviving spouse. It was found

that this procedure does not give optimal decisions. From the data, new rules were developed in terms of the after-tax rates of return and surviving spouse's remaining life. Based on the rates of return they are:

1. Make no qualifying transfer if the spouse's rate of return is less than or equal to the other beneficiaries' and his/her estate is less than or equal to the decedent's;

2. Transfer between 0% and 40% to the spouse if his/her rate of return is less than the beneficiaries' and his/her estate is less than the decedent's. Transfer between 0% and 50% if the spouse's rates of return equals the other beneficiaries' and his/her estate is less than the decedent's. In most of these cases zero will still be optimal.

3. The amount of the transfer must be determined individually for each case in which the spouse's rate of return is greater than the other beneficiaries'.

In terms of the spouse's remaining life they are:

1. Transfer zero to the spouse unless he/she outlives the decedent by more than six months;

2. Transfer 0% if the spouse's remaining life is sixteen years or more and his/her rate of return is less than the other beneficiaries';

3. Transfer 100% if the spouse's remaining life is sixteen years or more and his/her rate of return is greater than the other beneficiaries.

The model also reveals that it is, on the average, better to under-qualify the marital deduction than over-qualify it and that the credit for prior taxed transfers does not

merely eliminate dou

The general rule-of

... of death is tha

... paid because the

... in the estate.

... rule. The only t

... decedent's estate

... have already bee

... the additional ta

... mplation of deat

... decedent's estate.

Inter vivos trus

... and nonmonetary

... opinion that tru

... reasons. The o

... monetary advantage

... ciary's income ta

Several practi

... income tax ye

... from the ad

... tax rates. T

... be formulated

... as one of th

completely eliminate double taxation.

The general rule-of-thumb concerning gifts in contemplation of death is that they will reduce the total amount of tax paid because the amount of the gift tax is not included in the estate. The majority of the cases verified this rule. The only time this rule does not hold is when the decedent's estate is relatively small and sizeable gifts have already been made. The model also pointed out that the additional tax cost of having a gift ruled in contemplation of death is small in relation to the size of decedent's estate.

Inter vivos trusts are thought to provide both monetary and nonmonetary advantages. This study supports the opinion that trusts are advantageous for solely monetary reasons. The only time that trusts do not provide a monetary advantage is in those cases in which the beneficiary's income tax bracket exceeds that of the planner.

Several practitioners have suggested that if the first income tax year is a short one, a benefit will be derived from the additional personal exemption and possible lower tax rates. The model indicated that no simple rule could be formulated. It also indicated that the final year was one of the most important variables. The effect

under the distrib

of excess ded

ered.

The general rule-o

is that they s

the highest margi

the optimal s

the adm
so that
al.

effective income

ary's margina

equals the marg

is not cla

equals one-hal

The general rul

date is th

cases in w

but only if

be less th

indicated

type of as

of either the distribution of the final year's income or a carryover of excess deductions to the beneficiary must be considered.

The general rule-of-thumb concerning administration expenses is that they should be deducted on the tax return with the highest marginal tax rate. This will not always provide the optimal solution. The rule should be restated as:

> Deduct the administration expenses on the tax returns so that the effective tax rates are equal.

The effective income tax rate is either the estate's or beneficiary's marginal tax rate. The effective estate tax rate equals the marginal rate only if the maximum marital deduction is not claimed. If it is claimed, the effective rate equals one-half the marginal rate.

The general rule-of-thumb concerning the alternate valuation date is that this alternate should be selected in those cases in which the assets have increased in value, but only if at the same time the increased estate tax will be less than the reduction in the income tax. The model indicated that the rule should be restated based on type of asset and marital deduction as follows:

1. If the assets are capital assets and no marital deduction is claimed, do not use the alternate value.

2. If the assets are capital and a fifty percent marital deduction is claimed, use the alternate value when the beneficiary's income tax rate is 60% or more. Do not use it if his/her tax rate is 20% or less. If the rate is 40%, a table has been developed to indicate whether or not to use the alternate value.

3. If the assets are not capital and no marital deduction is claimed, use the alternate value when the beneficiary's tax rate is 70%. If his/her rate is either 40% or 60%, use the tables provided in Chapter 7. If the rate is 20% or less, use date of death values.

4. If the assets are not capital and the marital deduction is 50%, use the alternate value when the beneficiary's tax rate is 40% or more. Use the table provided if the rate is 20%. Do not use the alternate value if the beneficiary's rate is 0%.

The general rule-of-thumb concerning the executor's commission is that he should waive it and take under the will if he is entitled to part of the residual estate. This is not always optimal. If the executor's share is 50% or less or his tax rate is 20% or less, he should take his commission. If his share is 75% or 100%, tables have been provided in Chapter 8 to assist in the decision. The tables use the size of the estate, the estate's income and the executor's income tax bracket.

A COMPUTER SIMULATION OF SEVEN ESTATE PLANNING TECHNIQUES

By

Edward J. Schnee

A THESIS

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

Department of Accounting and Financial Administration

1973

ACKNOWLEDGMENT

The author is indebted to several people for their help with this study. The author would like to thank Professor Charles Gaa of the Department of Accounting and Financial Administration of Michigan State University, whose comments consistently helped and improved this study.

Two other faculty members at Michigan State University aided this study. They are Professor James Lampe, also of the Department of Accounting, and Professor M. B. Dickerson of the Department of Business Law. Professor Lampe assisted in the formulation of the simulation model and the computer programs. Professor Dickerson assisted with the legal aspects.

In addition, the author would like to thank the Committee on Estate Planning of the AICPA who sponsored this research and especially Mr. Arthur F. M. Harris who suggested the topic and made very valuable comments at the beginning of the research.

Finally, the author would like to thank his wife, Rosemary, without whose encouragement, proofreading and typing, this study might never have been completed.

TABLE OF CONTENTS

Percentage
Tax on Prior
Between Dea

Total Cases
Breakdown by
Decedent's
Surviving Sp

Optimal Dec
Breakdown b
Relative Pa

Optimal Dec
Return is
Breakdown b
those Cases
is less tha

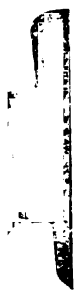
Optimal De
Return Gre
Breakdown
for those
Estate is

Optimal D
Remaining

Additiona
Either 45
was 50%.

Breakdown
and Plann

LIST OF TABLES



LIST OF CHARTS

If the term est...

...ople, their inve...

...ath and taxes.

...y large field as

Estate planning...
production of i...
...ation of weal...
...ome and wealth...
and improve the...
and financial ...
during and aft...

This definitio...

...l estate plan...

...re must be a de...

...e and accumulat...

...t to its dispo...

...l desires are

Charles J. ...
...e Planning," ...
...ersity of Flo...

CHAPTER 1

INTRODUCTION

Definition

If the term estate planning is presented to a group of people, their immediate reaction probably is to think of death and taxes. These are only two small parts of a very large field as the following definition illustrates:

> Estate planning is planning for coordinated production of income, accumulation and preservation of wealth, and utilization of the income and wealth to create, maximize, maintain, and improve the personal happiness and comfort and financial security of the planner's family during and after his lifetime.[1]

This definition indicates two things. First, successful estate planning must start long before death. There must be a deliberate action by the planner to produce and accumulate wealth before any thought can be given to its disposition. Second, the planner's personal desires are of paramount importance. An estate

---

[1]Charles J. Gaa, "Some Important Considerations in Estate Planning," Aspects of Contemporary Accounting, University of Florida, 1966, p. 45.

limits these

the planner's

disservice.

to the planner

of Taxes

The previous state

the monetary aspe

goals are s

how to best rea

tax consi

there has been

taxes will repr

to attainin

the pr

estate, and i

it by reduc

to the

these taxes co

actions.

for Study

There are se

One

plan which limits itself to monetary considerations and ignores the planner's total goals does him and his family a great disservice. The monetary aspect must be made to conform to the planner's desires and not the other way around.

Role of Taxes

The previous statements are not intended to imply that the monetary aspect is unimportant. Once the planner's goals are stated, the estate plan should consider how to best reach these objectives financially. At this point, tax considerations enter the estate planning. Unless there has been a deliberate attempt to prevent them, taxes will represent some of the most prohibitive barriers to attaining the planner's objectives. Income taxes inhibit the production and accumulation of wealth. Gift, estate, and inheritance taxes inhibit the disposition of it by reducing the amount of wealth available for distribution to the beneficiaries. The failure to allow for these taxes could reduce or nullify the planner's other actions.

Need for Study

There are several reasons why this study has been undertaken. One reason is that the results to be obtained

and potential benefit

work in this field e

of these groups are

thumb" such as:

decedent's estate to

and the alternate valua

be beneficial; etc.

adequately tested, t

indicate the cases in

to the practitioner i

any of these "rules"

... By testing and

...", this study w

knowledge to do a

The practitioner

... There are a

...ed in this fie

...officers, inve

... and the bread

... extensive. I

... the basic l

...ties needed

... abreast o

... clients.

are of potential benefit to the practitioners and educators who work in this field every day. At the present time, both of these groups are forced to rely on unverified "rules-of-thumb" such as: transfer exactly one half of the decedent's estate to the surviving spouse but no more; select the alternate valuation date if a step up in basis will be beneficial; etc. Since these "rules" have not been adequately tested, there is no objective evidence to indicate the cases in which they do not apply. Therefore, the practitioner is not certain if the application of any of these "rules" will be of maximum benefit to his client. By testing and perhaps improving existing "rules-of-thumb", this study will provide the practitioner with the knowledge to do a better job for his client.

The practitioner's need for such a study has increased. There are a large number of people who are involved in this field (accountants, attorneys, bankers, trust officers, investment counselors, insurance agents, etc.) and the breadth of knowledge they must have is quite extensive. It is becoming very difficult to acquire the basic knowledge of all the directly related disciplines needed in this field and almost impossible to stay abreast of the changes and the effect they will have on clients. It is imperative that some basic rules

be established, subject to modification when the laws change, so that the practitioner is not lost in a quagmire of conflicting options.

In a relevant article, Carl Paffendorf, a practitioner, hinted at another reason for making this type of study when he said, "The time required to develop and maintain estate planning proficiency, to analyze and plan an estate thoroughly, and to implement the plan often is not commensurate with the fees clients are willing to pay."[2] The result is not that it is unprofitable to go into the field of estate planning, but rather that true estate planning will be denied all individuals but those with large estates because of the cost involved. Unless decision rules are developed and tested, the practitioner will be forced to rely on unverified "rules-of-thumb".

A recent change in the tax laws points out another reason for this study. The time for filing the federal estate tax return has been reduced from fifteen months after death to nine months. This adds a time factor on top of the cost pressure. Within those nine months, the executor or administrator must, among other duties,

---

[2]Carl G. Paffendorf, "The Computer in Estate Planning-Use of Electronic Systems and Equipment," Trusts and Estates, September 1966, p. 855.

gather the assets, value them, determine the liabilities, determine the options, and provide the necessary liquidity. Although this list is not complete, it illustrates the need for a fast method of highlighting and selecting those options which will minimize the tax bill while fulfilling the planner's objectives.

The educator will benefit from this study by having tested decision rules for use in the classroom. This will permit him to indicate the effect of using one estate planning tool over another. It will also allow an analysis of the effect of the relationship between different variables by illustrating the effect of changing one variable while holding the others constant. Finally, when changes in the law are proposed, he can evaluate the effect on the public by simply modifying the tested rules and applying them to sample cases by the use of the models constructed in this study. All of this will also produce flow-through benefits to the public.

Scope

The scope of this study will be limited to the examination of only certain aspects of federal gift and estate taxation. The limitation is for purely practical reasons. It is not feasible to study all aspects of federal estate

TH

gift taxation, le

of this size.

be tested witho

ons.

Although several

using the compute

needed. Most

to the comp

tax, the esta

etc. This st

provide impro

of many v

is now being done

The topics, "r

A. Predeath pl

1. Marita
   one ha
   surviv

   a) si
   b) si
   c) re
   d) af
   e) af

   f) a

2. Gifts
   there

and gift taxation, let alone including income taxation in a study of this size. The areas selected were ones which could be tested without many unrealistic limitations and assumptions.

Although several insurance companies and CPA firms are using the computer in estate planning, this study is still needed. Most firms have restricted the use of the computer to the computation of specific items such as the estate tax, the estate income tax, the estate's cash needs, etc. This study goes beyond this point by attempting to provide improved decision rules based on the consideration of many variables rather than just one or two as is now being done.

The topics, "rules-of-thumb", and relevant variables are:

A. Predeath Planning

1. Marital deduction (Chapter 2) - give exactly one half of the decedent's estate to the surviving spouse.

    a) size of decedent's estate
    b) size of surviving spouse's estate
    c) remaining life of the spouse
    d) after-tax rate of return of spouse
    e) after-tax rate of return of other beneficiaries
    f) amounts transferred to surviving spouse

2. Gifts "in contemplation of death" (Chapter 3) - there is a benefit in gifts in contemplation

of dea
tax pa
estate
allowed

a) typ
b) ra
c) si
d) va
e) va
f) li

1. Inter
Inter
the in

a) ra
b) s
c) va
d) v
e) r
f) i

g) i

B. Post-Mort

1. Firs
an a
year
the
more

a)
b)
c)
d)
e)

f)

2. Ded
(Ch
inc
whi

of death because the amount of the gift tax paid is not added back into the estate although an estate tax credit is allowed for the gift tax paid.

a) type of property
b) rate of return
c) size of planner's estate
d) value of current gift
e) value of cumulative gifts
f) life of planner after gift

3. Inter vivos trusts (Chapter 4) - irrevocable inter vivos trusts save taxes by spreading the income over several parties.

a) rate of return
b) size of planner's estate
c) value of cumulative gifts
d) value of transfer in trust
e) remaining life of planner
f) income tax bracket of planner - effective tax rate
g) income tax bracket of beneficiaries - effective tax rate

B. Post-Mortem Planning

1. First income tax year (Chapter 5) - there is an advantage to having a short first tax year because of the extra $600 exemption and the lower tax rates if income is spread over more years.

a) size of income of the estate
b) expenses of the estate
c) income tax bracket of the beneficiary
d) life of the estate
e) pattern of receipts of income and disbursements for expenses.
f) length of first income tax year

2. Deduction of administrative expenses (Chapter 6) - deduct expenses either on the income tax return or the estate tax return whichever has the higher tax bracket.

a) marita
b) size of
c) income
d) amount

3. Alternate v
the benefic
the estate
value date
in value.

a) type of
b) marital
c) value o
d) value o
e) benefic
f) date o

4. Waiver of
the execut
his income
take under

a) size
b) inco
c) incon
d) per
ex

because of the i

and income taxa

it is evident t

the planning deci

these areas will

have on the es

duction will be

of the estate

a) marital deduction
b) size of estate
c) income of estate
d) amount of administrative expenses

3. Alternate valuation date (Chapter 7) - if the beneficiary's tax rate is larger than the estate tax rate, use the alternate value date if the assets have increased in value.

a) type of asset
b) marital deduction
c) value of estate at death
d) value of estate on alternate date
e) beneficiary's tax bracket
f) date of subsequent sale

4. Waiver of executor's commission (Chapter 8) - the executor should waive his commission if his income tax bracket is high and he will take under the will.

a) size of the estate
b) income tax bracket of the executor
c) income tax bracket of the estate
d) per cent of residual estate that executor is entitled to

Because of the interrelationships between estate, gift, and income taxation, the latter two will be included when it is evident that they have a direct effect on the estate planning decision rules. The actual consideration of these areas will be limited to the reductive effect they have on the estate and its distribution. No consideration will be given to their effect on the accumulation of the estate.

The study will be

technique on each

calculate the total

for the

possible combination

functioning within

will be analyzed

each case. This

'rule-of-thumb'

does not, then the

determine if pattern

be derived.

The criterion used

of maximizing the

by the survi

beneficiari

as the total

beneficiaries wi

of the final t

value was

it is reas

beneficiarie

, a probl

Methodology

The study will be performed using a computer simulation technique on each individual topic. The computer will calculate the total amount to be received by the beneficiaries for the many thousands of cases formed by every possible combination of the discrete relevant variables functioning within wide pre-defined ranges. This data will be analyzed to determine the optimal decision for each case. This optimum will then be compared to the general "rule-of-thumb" to see if it agrees with it. If it does not, then the optimal decisions will be reviewed to determine if patterns exist from which general rules can be derived.

The criterion used to select the optimal decision is that of maximizing the sum value of the transfers to be received by the surviving spouse, the children and other residual beneficiaries. For this study, sum value is defined as the total of all distributions received by the beneficiaries with accrued interest added up to the date of the final transfer.

Sum value was selected as the optimal decision because it is reasonable to assume that the distributions to the beneficiaries will not occur at one point in time. Therefore, a problem exists in evaluating and comparing

...ment receipts with f...

...theoretically correc...

...are to use either d...

...value of all the rec...

...make comparisons. Th...

...ents under the sum va...

...interest has been added...

...cause the interest wi...

...time periods under th...

...the method was selec...

...tions and yields ide...

...ses. This is becaus...

...be calculated anyw...

...of the estate...

...states.

When an interes...

...the sum value of...

...to be used. Th...

...ate is not defi...

...opportunity rate...

...For example, ...
...should be di...
...be acquired. ...
...ernative Set o...
...Enterprises", ...
...Institute of Certi...

current receipts with future receipts by the beneficiaries. The theoretically correct methods of handling this situation are to use either discounted present value or the sum value of all the receipts. Both methods will yield similar comparisons. The major difference is that the numbers under the sum value method are larger because interest has been added on to the principle amounts, whereas the interest will be subtracted from receipts in future periods under the present value method. The sum value method was selected because it required fewer calculations and yields identical decision patterns in most cases. This is because the sum value of the estates had to be calculated anyway in order to determine the exact amount of the estate tax that would be due on future estates.

When an interest rate is included in the calculation of the sum value of receipts, it is necessary to state the rate to be used. The literature of accounting and finance is not definite but seems to indicate that market or opportunity rate should be used.[3] The most appropriate

---

[3]For example, Sprouse and Moonitz state that receivables should be discounted at the market rate in force at the date acquired. Robert T. Sprouse and Maurice Moonitz, "A Tentative Set of Broad Accounting Principles for Business Enterprises", Accounting Research Study #3, American Institute of Certified Public Accountants, 1962, p. 24.

probably would be

earn on the money.

calculate because it

beneficiary's fi

the funds, and

items.

To avoid this prob

rate which a co

was selected beca

the actual ra

beneficiaries' ind

reasonable and

the rate of i

This rate was us

a corporate fid

ations

Within the rest

ations have bee

to the proble

is entitled

er. The rea

receive many

ing. In or

rate probably would be the one which each beneficiary could earn on the money. However, it would be impossible to calculate because it would vary depending on the individual beneficiary's financial education, time spent managing the funds, and risk preference, as well as other items.

To avoid this problem, it was decided to use the average rate which a competent trustee would earn. This rate was selected because in the case of trusts, this would be the actual rate earned; and as an estimate for the beneficiaries' individual rates of return, it would be both reasonable and conservative. Unless otherwise stated, the rate of interest used in this study will be 6%. This rate was used because it is the average rate that a corporate fiduciary could earn on trust funds.

Limitations

Within the restricted area of this study, two other limitations have been imposed. No consideration will be given to the problem of distributions where one beneficiary is entitled to a life interest and another the remainder. The reason for this is that the life tenant will receive many payments which could differ in amount and timing. In order to properly compare these

...ons with other

...ave to be discou...

...olve a prohibi...

...may not even be s...

...or the length of

...able to consider

...entity. This

...dent of the othe...

...conclusions concer...

The other major ...

...de for the non-m...

...der. For example

...al tax and tr...

..., rather than gi...

...will not be fina...

...ould be impossib...

...reasons for cons...

...ach a monetary

... determining

...calculate th...

...ing the resu...

...sults he wou...

... It is, then

...monetary re...

distributions with others from the planner's estate, they would have to be discounted back to a set date. This would involve a prohibitive amount of work and the dollar amount may not even be significant if the interest rate is high or the length of time reasonably long. It is preferable to consider the life interest problem as a separate entity. This is an attempt to keep each question independent of the others and therefore, allow more accurate conclusions concerning each individual question.

The other major limitation is that no adjustment will be made for the non-monetary matters that a planner has to consider. For example, some men would be willing to pay additional tax and transfer their entire estate to their wives, rather than give half to their children, so that they will not be financially independent of their mother. It would be impossible to imagine all the circumstances and reasons for consciously deviating from the optimum and to attach a monetary value to them. Therefore, by ignoring them in determining the decision rules, the planner can easily calculate the dollar effect of not optimizing by comparing the results of his non-monetary decision with the results he would obtain by following the optimal decision. It is, then, the planner's decision whether or not the nonmonetary reasons justify the cost.

CHAPTER 2

MARITAL DEDUCTION

The estate planner has many decisions to make during his lifetime. One of the most basic decisions is precisely how much money and what property he wants to leave to each beneficiary. This choice is a very personal one. From a tax standpoint, this decision is important because the estate tax will be affected by the amount that is left to the surviving spouse. The general rule-of-thumb is that the estate tax will be minimized by a transfer of 50% of the estate to the spouse unless his (her) estate is large. It is the purpose of this chapter to study this rule-of-thumb in depth.

The discussion of the marital deduction (as well as the other rules-of-thumb in subsequent chapters) will proceed as follows. First a discussion of the laws relating to the marital deduction will be presented. This will be followed by a discussion of the use of the marital deduction in practice. The simulation model constructed to test the appropriateness of the marital deduction in many

...situations wil...

...by an analysis

...Relating to the...

...of Estate

The Federal Estate...

...of property. I...

...and ending at 7...

...estates less than $...

...than $10,000,000...

The taxable estate...

...Revenue Code a...

...and deduction...

... Section 2031(a)...

> The value of the...
> shall be determin...
> provided for in...
> time of his deat...
> ..., tangible...

...remainder of that...

...problems s...

..., proceeds of li...

...Deductions...

Section 2052 p...

... and every esta...

...§2001

different situations will be discussed. This will be followed by an analysis of the results and a summary.

The Laws Relating to the Marital Deduction

Definition of Estate

The Federal Estate Tax is an excise tax on the transfer of property. It has a progressive rate starting at 3% and ending at 77%. The 3% rate is applied to taxable estates less than $5,000; the 77% rate to ones greater than $10,000,000.[1]

The taxable estate is defined in section 2051 of the Internal Revenue Code as being the gross estate minus the exemption and deductions specified in sections 2052 to 2056. Section 2031(a) defines the gross estate as:

> The value of the gross estate of the decedent shall be determined by including to the extent provided for in this part, the value at the time of his death of all property real or personal, tangible or intangible, wherever situated.

The remainder of that part of the Code deals with specific valuation problems such as annuities, powers of appointment, proceeds of life insurance, etc.

Specific Deductions and Exemptions

Section 2052 provides for an exemption of $60,000 for each and every estate. Section 2053 allows for deductions

---

[1]IRC §2001

m the gross estate

[illegible] administration

indebtedness asso

[illegible] Section 2054

theft losses "whe

insurance or other

[illegible] is provided

[illegible] transfers for

[illegible] 2056 - Marit

Section 2056 (a

For purposes of
the value of th
as limited by
determined by
interest in pr
decedent to hi
the extent tha
determining th

[illegible] section provi

[illegible] to a sur

[illegible] that, t

[illegible] be included

[illegible] state tha

[illegible] is allo

[illegible] as includ

Estate Tax

from the gross estate for the dollar amount of funeral expenses, administration expenses, claims against the estate and indebtedness associated with property included in the estate. Section 2054 allows for a deduction for casualty and theft losses "when such losses are not compensated for by insurance or otherwise." A deduction for transfers to charity is provided in Section 2055. This section also covers transfers for public and religious uses.

Section 2056 - Marital Deduction

Section 2056 (a) states:

> For purposes of the tax imposed by Section 2001, the value of the taxable estate shall, except as limited by subsections (b), (c), and (d), be determined by deducting from the value of any interest in property which passes from the decedent to his surviving spouse, but only to the extent that such interest is included in determining the value of the gross estate.

This section provides a marital deduction--a deduction for transfers to a surviving spouse. There is the general limitation that, to qualify, the property transferred must be included in the decedent's gross estate. The regulations state that any transfer of property for which a deduction is allowed under Section 2053 will not be considered as included in the estate.[2] Therefore, any debts

---

[2]Estate Tax Regulation §20.2056(a)-2(b)(2)

of the decedent or executor's commission paid to the surviving spouse will not give rise to a double deduction.

Subsection (b) denies a marital deduction for transfers "where, on the lapse of time, on the occurrence of an event or contingency, or the failure of an event or contingency to occur, an interest passing to the surviving spouse will terminate or fail...."[3] Those transfers are known as terminable interests and include life estates, annuities, patents and copyrights.[4]

There are two very important exceptions to the terminable interest rule. The deduction will not be denied if the surviving spouse's interest is contingent upon either -

1 - his (her) out-living the deceased by at least six months, or

2 - his (her) not dying from a common disaster.[5]

Therefore, the property will be included in the spouse's estate and a marital deduction claimed only if either or both of these conditions are met. This prevents the property from being taxed in two estates within a very

---

[3]IRC §2056(b)(1)

[4]Estate Tax Regulation §20.2056(b)(1)

[5]IRC §2056(b)(3)(A) For a discussion of the advisability of using a six-month condition see page 26.

short period of time.

A deduction will also be denied for property where the surviving spouse has disclaimed his/her interest and it passes to another party.[6] On the other hand, a timely disclaimer by a third party such that the surviving spouse receives the property will qualify the property for the marital deduction.[7]

The most frequently referred to limitation on the amount of property which will qualify for the marital deduction, given in subsection (c), states that the marital deduction is limited to fifty percent of the adjusted gross estate.[8] The adjusted gross estate is determined by subtracting the expenses, debts, taxes and casualty losses, deductible in determining the taxable estate, from the gross estate.[9,10] It is interesting and

---

[6]IRC §2056(d)(1)

[7]IRC §2056(d)(2)

[8]IRC §2056(c)(1)

[9]IRC §2056(c)(2)(A)

[10]To determine the adjusted gross estate, there is also a deduction for community property. This was inserted because only 1/2 the value of such property is included in the gross estate. Therefore, 1/2 the community property is transferred to the surviving spouse free of tax automatically.

important to note that the adjusted gross estate used as a basis for qualifying the marital deduction is not limited by either the $60,000 exemption or any transfers to charitable or religious organizations deductible under section 2055 from the gross estate.

Revenue Procedure 64-19 - Formula Clauses

When discussing the tax law associated with the use of the marital deduction in estate planning, there are two more points that should be considered. The first is the effect of formula clauses on qualifying for the marital deduction. This is covered by Revenue Procedure 64-19.[11]

This Procedure states that if the will requires the executor to distribute assets in kind to the surviving spouse, and if they are to be valued at the values used for Federal Estate Tax purposes, and these assets might fluctuate in value, there is a question whether or not the amount of the transfer is fixed at date of decedent's death. If it is not fixed, then the marital deduction will be denied.

Certain bequests are automatically excluded from question. They are:

---

[11]1964-1 Cumulative Bulletin 682.

(1) the surviving spouse is to receive a fractional share of the estate and any changes in value will be proportionally included,

(2) it is to be settled with specific assets,

(3) it is to be settled solely in cash, or

(4) the assets distributed are to be valued at their date of distribution value.

If the bequest is one covered by this Procedure and it is not automatically excluded, it will be considered undetermined at death unless it specifically provides:

(1) the executor must use assets having a value at the date of distribution at least equal to the value at date of death, or

(2) the assets distributed must be fairly representative of the change in value of the entire estate.

As was stated before, the penalty for not complying with this Procedure is complete disallowance of any marital deduction.

Section 2013 - Credit for Prior Taxed Transfers

The second point which should be considered is that a credit is allowed in certain cases where property was taxed in a prior estate. Section 2013(a) states that if property was taxed in a prior estate within ten years of the date of the decedent's death, then a credit is allowed against the current estate tax.

The actual credit is the lower of the following two

computations. The first computation is the difference between the tax due ignoring this credit (but subtracting the credits for state, foreign or gift taxes) and the tax that would be due if the prior taxed property was excluded from the current gross estate.[12] The second computation is the multiplication of the estate tax paid on the prior estate by the ratio of the value of the prior taxed property included in the current estate to the prior taxable estate plus the amount of the exemption claimed under Section 2052.[13] (In most cases, the amount claimed under 2052 would be $60,000). The second computation can be expressed mathematically as:

$$\text{Credit} = \text{Prior tax paid (x)} \frac{\text{value of prior taxed property}}{\text{prior taxable estate} + \$60,000}$$

If the date of death of the decedent is more than two years after the death of the prior decedent, the credit which is determined as above must be reduced[14] by the percentages shown in the following table:

---

[12]IRC §2013(c)(1). There is also an adjustment if the estate is claiming a deduction under §2055 or §2106(a)(2).

[13]IRC §2013(b)

[14]IRC §2013(a)

[illegible]
BA[illegible]

Time Between D[illegible]
(in years)
[illegible]

This credit ma

transfer to a survi

qualify for the ma

possible because

Use of Marital De

The use of th

practitioner i

advantages have be

important ones fo

Reducing Overal

Supposedly,

estate taxes. I

are currently

the overall es

other than ..

TABLE 2-I

PERCENTAGE REDUCTION IN CREDIT FOR TAX ON PRIOR TRANSFERS
BASED ON TIME BETWEEN DEATHS

Time Between Dates of Death		Credit Reduction
At least (years)	But less than (years)	Percentage
2	5	20
5	7	40
7	9	60
9	11	80

This credit may come into play when there was a transfer to a surviving spouse which either did not qualify for the marital deduction or exceeded the amount deductible because of the limitations.

Uses of Marital Deduction in Estate Planning

The use of the marital deduction is well known to the practitioner in the field of estate planning. Many advantages have been noted. A discussion of the most important ones follows.

Minimizing Overall Estate Tax

Supposedly, the primary advantage is that it saves current taxes. It permits the deceased to transfer more assets currently to his beneficiaries. It may ultimately reduce overall estate tax. If the spouse's estate is smaller than the decedent's, then by using marital deduction,

re transferred pr

or before. This

as paid. Another

ether or not it r

ance the liquidit

...ed out that in

...t is a closely h

... the marital de

... loss from havin

... rapidly in a d

... become not whet

... rather how much

... Factor

Several author

...al amount of p

...al deduction.

... the maximum

... larger total

...se's estate is

Paul B. Sar
..., Tax Counsel

Harry Yohli
... to Save Ta

Robert A. L

the transferred property would be taxed at a lower rate than before. This would reduce the total amount of estate tax paid. Another advantage to reducing current tax, whether or not it reduces the overall tax bill, is to reduce the liquidity needs of the estate. It has been pointed out that in the case of an estate whose major asset is a closely held business, the current cash savings from the marital deduction may be essential to minimize the loss from having to sell either part or all of the firm rapidly in a disadvantageous market.[15] The question has become not whether to use the marital deduction or not but rather how much to transfer to the surviving spouse.

Timing Factor

Several authors have indicated that there may be an optimal amount of property to transfer qualifying for the marital deduction. Several examples have been formulated where the maximum use of the marital deduction gives rise to a larger total tax bill even when the surviving spouse's estate is smaller than the decedent's.[16,17]

---

[15]Paul B. Sargent, "A.B.C. and D. of Marital Deduction," Tax Counselor's Quarterly, June 1963, p. 181.

[16]Harry Yohlin, "Developing an Effective Gift Tax Program to Save Taxes," The Practical Lawyer, May 1967, p. 50.

[17]Robert A. Lewis, "The Marital Deduction, The (cont. p. 23)

illustrate: assu

and his wife

the full amount

the combi

If, on the

wife, the com

Neither of the

an interest fa

importance of th

literature.

interest that ca

the marital

tax due

larger than the

amount of

to investig

Clauses

Assuming for

's estate

---

for Tax on
Death A
Magazine,

Robert Bro
for Business
Advisors, N

To illustrate: assume that the husband's estate is $700,000 and his wife's estate is $500,000. If at his death the full amount of the marital deduction is used ($350,000) the combined tax on both estates will be $296,100. If, on the other hand, nothing is transferred to his wife, the combined tax will be $293,200.

Neither of the previously footnoted authors has included an interest factor or determined an optimal ratio. The importance of the interest factor has been recognized in the literature. In fact, it has been suggested that the interest that can be earned on the estate tax saved by using the marital deduction may more than offset the additional tax due even if the surviving spouse's estate is larger than the decedent's estate.[18] Therefore, the optimal amount of marital deduction transfer is still subject to investigation.

Formula Clauses

Assuming for the present that an optimal percent of decedent's estate which will maximize the receipts of the

---

Credit for Tax on Prior Transfers and Their Interrelationship-Post Death Action to Coordinate Their Use," Taxes-The Tax Magazine, April 1964, pp. 225-226.

[18]Robert Brosterman, The Complete Estate Planning Guide For Business and Professional Men and Women and Their Advisors, New York, McGraw-Hill, 1964, p. 229.

ciaries is deter-

ing the bequest to t

and qualify it. When

ion, the question is

specific dollar amou

ever, it would be r

ize of the estate bef

will use some form o

There are two ma

first is a fractional

surviving spouse woul

residuary estate. I

entitled to a part o

residuary estate. T

der this type, the

ounts equal to m

other words, he (sh

affected by the exe

rived at by multi

a specified perce

The advantages a

kept in mind is

residuary claus

13See Page 1

beneficiaries is determined, the question becomes how to set up the bequest to the spouse so as not to over or under qualify it. When the exact size of the estate is known, the question is easily answered. Make the bequest a specific dollar amount or a specific group of assets. However, it would be rare to know in advance the exact size of the estate before death. Therefore, most advisors would use some form of formula clause bequest.

There are two main types of formula clauses. The first is a fractional share clause. Under this type, the surviving spouse would get a constant fraction of the residuary estate. In other words, he (she) would be entitled to a part of each asset that is included in the residuary estate. The second is the pecuniary formula. Under this type, the surviving spouse would get assets in amounts equal to X% of the adjusted gross estate. In other words, he (she) is entitled to a group of assets, selected by the executor, whose value equals the number arrived at by multiplying the adjusted gross estate by the specified percentage. Both types of clauses have their advantages and disadvantages. One point that must be kept in mind is that Revenue Procedure 64-19 applies to pecuniary clauses but not fractional share clauses.[19]

---

[19]See Page 18.

No other ad...

... are that th...

depreciation of

... to be revalue...

... advantages ...

... more post-m...

...[21] It allow...

... selects the

... Therefore,

... or decline

... when the spouse

... 1.663(a)-1(

... a specific s

...efore, any dis...

... and be income

... distributin...

... will be

... tax year

[20] Mark B. Ed...
...'s Guide,"
...ber 1967, p

[21] Alan N. Po...
...es in Estate
...derations,"
...-380.

Two other advantages of using the fractional share clause are that the spouse will share in the appreciation or depreciation of the estate and that the assets do not have to be revalued at the date of distribution.[20] Two of the advantages of the pecuniary clause are that it allows more post-mortem planning and it allows timing of income.[21] It allows more post-mortem planning because the executor selects the assets to be distributed to the spouse. Therefore, he can select assets which will be consumed or decline in value and result in a lower estate tax when the spouse dies. As for timing of income, Regulation §1.663(a)-1(b)(1) states that a pecuniary bequest is not a specific sum of money or a specific property. Therefore, any distributions will come under §663 of the Code and be income to the beneficiary. By distributing or not distributing assets, the executor dictates whether the income will be taxed to the estate or the spouse and in whose tax year it will be taxed.

---

[20]Mark B. Edwards, "Marital Deduction Formulae-A Planner's Guide," The Tax Counselor's Quarterly, September 1967, p. 264.

[21]Alan N. Polasky, "Marital Deduction Formula Clauses in Estate Planning - Estate and Income Tax Considerations," Michigan Law Review, March 1965, pp. 879-880.

The choice of whi

decision which the

after considering

ses of Trusts

Another importan

duction concerns th

rust. A discussion

using a trust will

his question is cons

ion of the amount o

he Simulation Model

The general rul

% of the decedent'

his portion of the

the optimal solut

ce and output the

iciaries based on

fined variables.

e optimal percenta

e did not maximiz

ables

There are many

following variab

The choice of which type of formula clause to use is a decision which the decedent and his advisor should agree to after considering the individual case.

Uses of Trusts

Another important consideration related to the marital deduction concerns the transferring of assets into a trust. A discussion of the advantages and disadvantages of using a trust will be deferred until Chapter 4, because this question is considered subordinate to the determination of the amount of transfer.

The Simulation Model

The general rule-of-thumb is to transfer exactly 50% of the decedent's estate to the surviving spouse. This portion of the study tested whether this rule leads to the optimal solution. The model was designed to compute and output the amount of estate received by beneficiaries based on the varying combinations of predefined variables. The study was set up to determine the optimal percentage in those cases in which the general rule did not maximize the receipts by beneficiaries.

Variables

There are many factors which affect this decision. The following variables have been selected to be included

model because

...ure,[22] or the

...mate the real

...s estate, s

...-tax rate of re

... of the other

... and amount tr

Size of Deceden

The range of th

... increments of $2

... selected to ass

...able after deduc

...ction. The max

... Code is $120,00

...ction and $60,0

The $2,000,00

... large estat

... output of thi

... any trends th

...ceable for es

Size of Survi

The range wa

[22] See discus
... Planning,

in the model because either they have been cited in the literature,[22] or they were necessary to make the model approximate the real world. The variables are: size of decedent's estate, size of surviving spouse's estate, after-tax rate of return of spouse, after-tax rate of return of the other beneficiaries, remaining life of the spouse and amount transferred to spouse.

Size of Decedent's Estate

The range of this variable was $200,000 to $2,000,000 by increments of $200,000. The $200,000 starting point was selected to assure that all of the estates would be taxable after deducting the exemption and the marital deduction. The maximum size of nontaxable estates under the Code is $120,000 if full use is made of the marital deduction and $60,000 exemption.

The $2,000,000 ending point was used to permit relatively large estates while still restricting the computation output of this study to a workable size. It was felt that any trends that occur in large estates would be noticeable for estates of $2,000,000.

Size of Surviving Spouse's Estate

The range was $200,000 to $2,000,000 by increments of

---

[22]See discussion of Uses of Marital Deduction in Estate Planning, pp. 21-26.

. The range

and was selecte

estate was varied

's estate. Th

were cons

After-Tax Rate of
and Other Benef

It has already be

interest ea

be considered.

considered, b

should

variables i

the after-tax r

spouses and t

after-tax rates

the beneficiar

without ha

confuse the p

from 0% to 3

dependently to a

A zero rate

that some ben

[13] See Footno

$200,000. The range was the same as for the decedent's estate and was selected for the same reason. The size of this estate was varied independently of the size of the decedent's estate. This was done so that all the possible combinations were considered.

After-Tax Rate of Return of the Surviving Spouse and Other Beneficiaries

It has already been pointed out (pages 23 & 24) that potential interest earnings on the deferred estate tax should be considered.[23] Not only should interest on the tax be considered, but also the potential earnings on the distributions should be taken into account. Therefore, two more variables included in the simulation model represent the after-tax rates of return that each of the surviving spouses and the other beneficiaries would earn. The after-tax rates of return were used to recognize that the beneficiaries are probably in different tax brackets without having to add additional variables which could confuse the primary issue. These returns were varied from 0% to 30% by steps of 6%. They were varied independently to again consider every possible combination. A zero rate was used as a start up point to recognize that some beneficiaries would either not know how

---

[23]See Footnote 18.

or not want to invest their inheritance in income producing assets. Thirty percent was set as a maximum to allow for extraordinary knowledge on the part of the beneficiary or extremely favorable opportunities. It is highly unlikely that anyone would earn that high a rate for any length of time; its inclusion was more for informational and theoretical reasons than practical ones.

Remaining Life of Spouse

Whenever interest is included, a time variable must be specified. In this case, it is the life of the spouse. This dictates how long the other beneficiaries must wait to receive the remainder of the decedent's estate (the portion which qualified for the marital deduction by transfer to the spouse). The spouse's remaining life was varied from one year to 22 years by increments of three years. A starting life of one was selected to cover the case where both the deceased and spouse are elderly. The three year increments provide information concerning the effect of the credit for prior taxed transfers on the optimal decision. A maximum of 22 years was used to account for the spouse who lives to a very old age as well as the case where the decedent died at a very young age. This does not exhaust all possibilities, but it does provide for a reasonably wide range of cases.

Amount Transferr

The final variab

cedent's estate tha

spouse. The percents

They were chosen to

cedent transferred a

sumed optimal of 50%

and determine the op

the extremes mentione

Methodology

The simulation m

prepared in fortra

and flow chart of t

as follows: The si

set at $200,000. T

$...,000. The rate

other beneficiaries

spouse's life (SLI

the decedent's

are then set at th

amount of the tra

calculated (T_1).

decedent's estate

Amount Transferred to Spouse

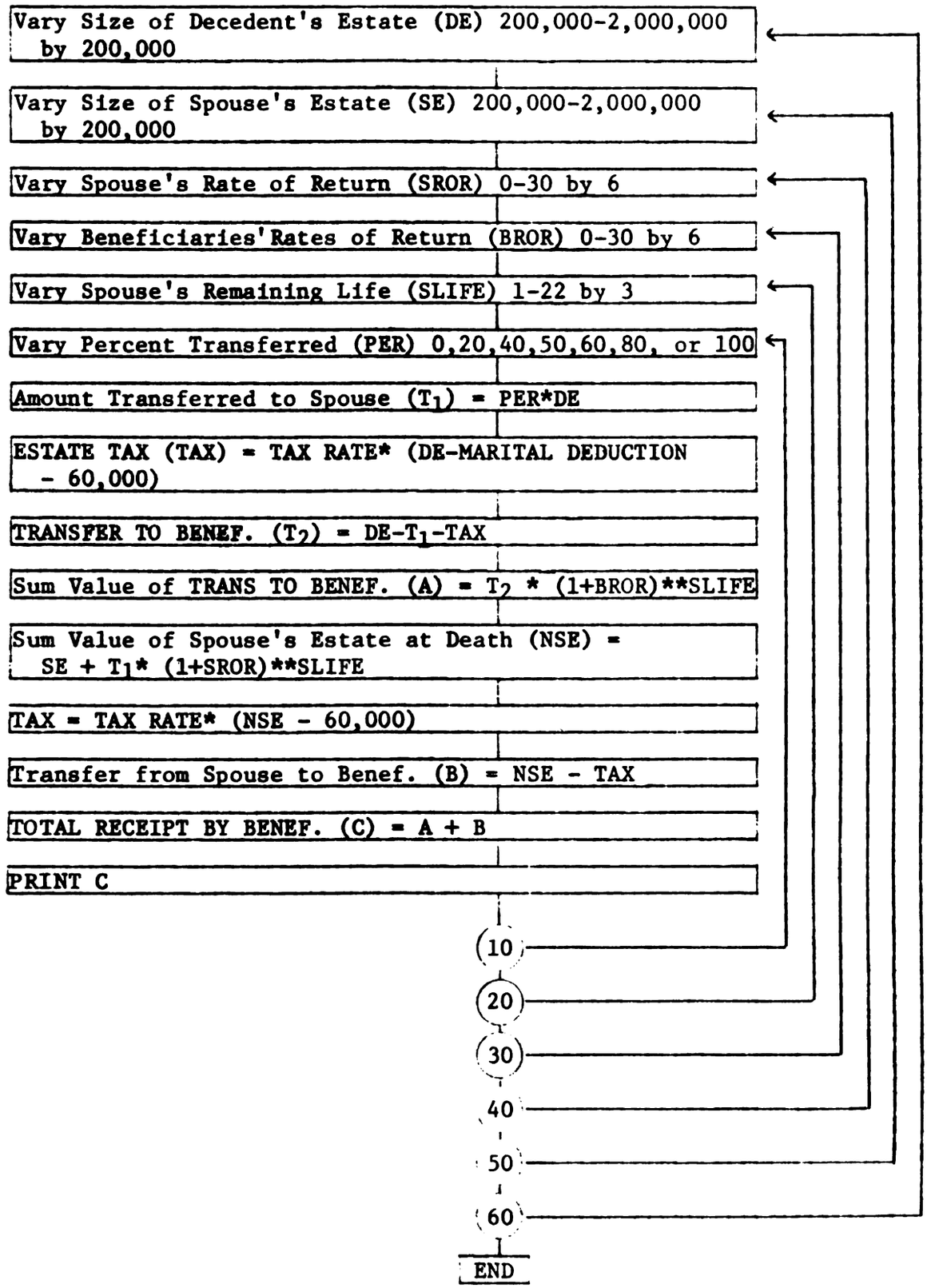
The final variable considered was the percent of decedent's estate that was transferred to the surviving spouse. The percents used were 0,20,40,50,60,80 and 100. They were chosen to hit the extreme cases in which the decedent transferred all or nothing as well as the suggested optimal of 50%. The other rates were selected to help determine the optimal percent if it is not one of the extremes mentioned.

Methodology

The simulation model used to generate the data was programmed in fortran on an IBM 360 computer. Chart 2-I is a flow chart of this model. The simulation proceeded as follows: The size of the decedent's estate (DE) was set at $200,000. The spouse's estate (SE) was set at $200,000. The rates of return for the spouse (SROR) and other beneficiaries (BROR) was set at 0%. The surviving spouse's life (SLIFE) was set at one year. The percent of the decedent's estate transferred to the spouse (PER) was then set at the initial point of zero. The dollar amount of the transfer to the surviving spouse was then calculated (T_1). The estate tax (TAX) due on the decedent's estate was then calculated. The other

CHART 2-I

FLOW CHART FOR MARITAL DEDUCTION



beneficiaries were as

equal to the decedent

to the surviving spou

Interest was then add

the beneficiaries (A

estate at her death w

the estate tax due a

. The differen

were added to the am

other beneficiaries

added to this amoun

other beneficiaries

The computer then

the surviving spou

were redone. Afte

, the other

Limitations on Me

There are se

of the varia

based only o

through restric

and advisors mus

has no altern

beneficiaries were assumed to have received an amount equal to the decedent's estate minus the amount transferred to the surviving spouse and the amount of tax due (T_2). Interest was then added to the amounts transferred to all beneficiaries (A). The sum value of the spouse's estate at her death was calculated (NSE). The amount of the estate tax due at the spouse's death was then computed (TAX). The difference between the estate and the tax was then added to the amount originally transferred to the other beneficiaries (C). (Interest has already been added to this amount.) The total amount received by the other beneficiaries was then printed out as the result. The computer then increased the percentage transferred to the surviving spouse, and then all the other computations were redone. After the percentage reached the maximum of 100, the other variables were increased in turn.

Limitations on Methodology

There are several limitations in this model. First, all of the variables are certain (tax rate for example) and based only on current provisions in the tax law. Although restrictive, it is the same assumption that all tax advisors must make to specify an exact answer and leaves no alternative.

The next limitat...

...earns a rate of r...

...decedent. It is a...

...are left uninvest...

...or gives awa...

...her origin...

...increase nor decre...

...eliminate all the...

...necessary concern...

...earnings capacity, c...

...not included.

The use of the...

...before-tax rate...

...alternative wo...

...use's before-t...

...'s before-tax r...

...used. This wo...

...without in...

...ulation due...

...-tax rate of...

The next lin...

...used for all...

...either be...

...or that...

The next limitation is that the surviving spouse only earns a rate of return on the amount received from the decedent. It is assumed that none of the estate earnings are left uninvested. The surviving spouse either consumes or gives away the exact amount of the earnings from his(her) original estate so that there is neither an increase nor decrease in its size. This was included to eliminate all the additional assumptions which would be necessary concerning the spouse's standard of living, earnings capacity, charitable donations, etc., if it were not included.

The use of the after-tax rate of return rather than the before-tax rate may be viewed as another limitation. The alternative would have been to include four variables (spouse's before-tax rate, spouse's tax rate, beneficiary's before-tax rate, and beneficiary's tax rate) for the two used. This would have increased the number of situations without increasing the useful output because the accumulation due to income would still be based on after-tax rate of return.

The next limitation is that only one rate of return is used for all beneficiaries besides the spouse. This could either be because there is only one other beneficiary or that all of them have the same rate. There

are many cases where this limitation would be inappropriate. It was included to limit the number of different situations which would be considered. This has the advantage of providing information on the effect of transfers to each beneficiary individually. If there are several beneficiaries, treat each one as a separate case. An approximate answer for all the beneficiaries combined can be determined by interpolating between the results obtained for each individual case.

The final limitation is that no consideration was given to the use of trusts for either the benefit of the surviving spouse or the other beneficiaries. This is not restrictive, because if the trust qualified for the marital deduction, it would have the same effect as an outright bequest to the spouse. As for the use of trusts for the other beneficiaries, it really is a question of what form the bequest should take. To have included this option would simply confuse the issue and mask the actual effect of the marital deduction.

Results

The discussion of the results will proceed as follows:

1. The overall results of the different percents transferred to the spouse;
2. The effect of the relationship of the sizes of

the decedent's and spouse's estate;

3. The effect of the difference in the rates of return earned by the spouse and the other beneficiaries;

4. The effect of the spouse's remaining life; and

5. The cost of under or over qualifying the marital deduction.

Summary Results

In total, 28,800 cases were generated. A breakdown of the optimal decisions[24] by percent of decedent's estate transferred to the surviving spouse is presented in Table 2-II. It can be observed that in only 2,876 cases, or about 10% of the time, did the model determine it appropriate to give the surviving spouse the maximum amount which will qualify for the marital deduction.[25] In 16,050 cases (55%), the optimal decision would have been to transfer zero to the spouse; and in 5,966 cases (21%), the optimal transfer to the spouse would have been 100%.

---

[24]The optimal decision is judged by the transfer to the spouse which will result in the maximum receipts by other beneficiaries from the decedent and spouse at the time of the spouse's death.

[25]See the discussion on Page 47 regarding the cost of under or over qualifying for an adjustment to the results presented.

TABLE 2-II

TOTAL CASES GENERATED
BREAKDOWN BY OPTIMAL PERCENTAGE OF THE DECEDENT'S
ESTATE TRANSFERRED TO THE SURVIVING SPOUSE

Percent of Decedent's Estate Transferred	Number of Cases	%
0	16,050	55.7
20	2,153	7.5
40	1,158	4.0
50	2,876*	10.0
60	340	1.2
80	257	.9
100	5,966	20.7
	28,800	100.0

*In only 2,876 cases, or about 10% of the time, the optimal decision is to give the surviving spouse the maximum amount which would qualify for the marital deduction.

Effects of Size of Estate

Table 2-III gives the optimal decisions broken down by the relative size of the decedent's and spouse's estates and the relative size of the spouse's after-tax rate of return and other beneficiaries' after-tax rates of return. An evaluation of this table highlights two points. First, the general "rule of thumb" as to the relative sizes of the estates, does not provide a good yardstick. The common rule would indicate transferring 50% to the spouse in most cases in which the decedent's

TABLE 2-III

OPTIMAL DECISIONS
BREAKDOWN BY RELATIVE ESTATE SIZES AND RELATIVE RATES OF RETURN

	Decedent's Estate Less Than Spouse's Estate			Decedent's Estate Equal Spouse's Estate			Decedent's Estate Greater Than Spouse's Estate			
Percent	Spouse's rate less than benefic.	Spouse's rate equal to benefic.	Spouse's rate greater than benefic.	Spouse's rate less than benefic.	Spouse's rate equal to benefic.	Spouse's rate greater than benefic.	Spouse's rate less than benefic.	Spouse's rate equal to benefic.	Spouse's rate greater than benefic.	Total
0	5,400	2,160	434	1,200	480	13	5,217	1,146	0	16,050
20	0	0	555	0	0	149	169	761	519	2,153
40	0	0	310	0	0	100	14	237	497	1,158
50	0	0	1,073	0	0	274	0	16	1,513	2,876
60	0	0	118	0	0	31	0	0	191	340
80	0	0	105	0	0	26	0	0	126	257
100	0	0	2,805	0	0	607	0	0	2,554	5,966
Total	5,400	2,160	5,400	1,200	480	1,200	5,400	2,160	5,400	
Total		12,960			2,880			12,960		28,800

*After-tax rate of return on investment.

estate is larger than the spouse's. It turns out that this is the optimal decision in only 1,529 cases (16 + 1,513) out of a total of 12,960. These results are very similar to the overall result which indicated that about 10% of the time, a transfer of 50% would be optimal.

Similar results were obtained when the decedent's estate was varied to be equal and then less than the spouse's estate. For example, Table 2-III A shows a breakdown by relative estate size of those cases in which the decedent's estate was less than the spouse's estate, while the spouse's rate of return was greater than the other beneficiaries'. It can be seen that fifty percent transfer is optimal a little less than 20% of the time (296 out of 1,320) when decedent's estate is more than 70% of the spouse's estate. This is the same percentage as for those cases between 30% and 70% (551 out of 2,640) and those cases less than 30% (226 out of 1,440).

Tables 2-III and 2-III A indicate that the relative sizes of the estates is not one of the determining variables with respect to the optimal amount that should be transferred to the spouse so as to qualify for the marital deduction.

TABLE 2-IIIA

OPTIMAL DECISION WHERE SPOUSE'S RATE OF RETURN IS GREATER THAN BENEFICIARIES' BREAKDOWN BY RELATIVE ESTATE SIZES FOR THOSE CASES IN WHICH DECEDENT'S ESTATE IS LESS THAN SPOUSE'S

Percent Transfer	Decedent's Estate as a Percent of Spouse's Estate			
	More than 70%	More than 30% but not more than 70%	Less than or Equal to 30%	Total
0	66	196	172	434
20	186	276	93	555
40	108	137	65	310
50	296	551	226	1,073
60	35	57	26	118
80	27	51	27	105
100	602	1,372	831	2,805
Total	1,320	2,640	1,440	5,400

Effect of Rates of Return

The second point which can be obtained from Table 2-III is that the relationship between the after-tax rates of return is a very important variable. In 11,817 cases (5,400 + 1,200 + 5,217) out of a total of 12,000 cases in which the spouse's after-tax rate of return was less than the other beneficiaries' rates of return, the optimal decision was to transfer nothing to the spouse.[26] In no

[26]The reader should keep in mind that the optimal decision of a zero transfer does not mean that the surviving spouse should receive nothing from the decedent's estate. It means that any transfer to (continued p. 40)

case would you want to transfer 50% to the spouse. In 3,786 cases (2,160 + 480 + 1,146) out of 4,800 where the rates of return were equal, the optimal decision was, again, to transfer zero to the spouse. In fact, the only time zero was not the optimal decision when the after-tax rates of return were equal was in those 1,014 cases (761 + 237 + 16) in which the decedent's estate was also larger than the spouse's. To further emphasize the importance of the rates of return, note that in nearly 50% of the cases (5,966 out of a total of 12,000) where the spouse's rate of return was larger, the optimal decision was to transfer 100% of the decedent's estate to the spouse. Of these, 2,805 were cases where the spouse's estate was already larger than the decedent's. In an attempt to determine the exact effect that the difference in rates of returns has, Table 2-III B was prepared. Table 2-III B presents a breakdown of the optimal decisions by relative rates of return for those cases in which the decedent's estate is less than the spouse's estate and the spouse's rate of return is greater than the other beneficiaries'.

---

the spouse should be set up in a way that it does not qualify for the marital deduction on the decedent's estate tax return.

A review of Table 2-III B indicates that the summary results of Table 2-III are relatively consistent throughout the range of cases. A closer analysis of the extremes (spouse's rate 24% or 30% greater than beneficiaries' and decedent's estate less than 30% of spouse's) indicates a slight bias toward larger transfers to the spouse. This is evident when the number of cases where 50% is optimal is examined. The overall results (see pages 35 and 36) indicate that 50% should be optimal about 10% of the time. When the spouse's rate is extremely large, that result occurs only about 5% (58/1,080) of the time in Table 2-IIIB. In those same cases in Table 2-III B, the optimal decision of 100% transfer increases to almost 90% (931/1,080) of the time. This is what one would expect because of the abnormally large return that is earned on investments. An analysis of Table 2-III B leaving out the extreme cases in the right column indicates that a 50% transfer would be optimal in 1,015 cases (595 + 420) out of a total of 4,320 cases. This is about 23% of the time. It is larger than the overall results, but it is still small enough to repudiate the general rule-of-thumb that 50% is the optimal transfer.

An analysis similar to the one in Table 2-III B for those cases in which the estates are equal and the

TABLE 2-IIIB

OPTIMAL DECISION WHERE SPOUSE'S RATE OF RETURN IS GREATER THAN BENEFICIARIES' BREAKDOWN BY RELATIVE RATES OF RETURN FOR THOSE CASES IN WHICH DECEDENT'S ESTATE IS LESS THAN SPOUSE'S

Percent Transfer	Spouse's Rate Greater than Beneficiaries' Rate by 6%	12% or 18%	24% or 30%	Total
0	260	160	14	434
20	424	99	32	555
40	215	61	34	310
50	595	420	58	1,073
60	44	69	5	118
80	42	57	6	105
100	220	1,654	931	2,805
Total	1,800	2,520	1,080	5,400

spouse's rate of return is greater than the beneficiaries' rate yields results very similar to those in Table 2-III B. Therefore, a detailed listing of the results is not included.

Referring back to Table 2-III, it appears more accurate to replace the existing rule-of-thumb with three more specific rules as follows:

1. If the spouse's rate of return is less than or equal to the other beneficiaries' and his(her) estate is greater than or equal to

the decedent's estate, no qualifying transfer should be made to the spouse.

2. For those cases in which the decedent's estate is larger, transfer between 0% and 40% if the spouse's rate is less than the other beneficiaries'; and transfer between 0% and 50% if the spouse's rate equals the other beneficiaries'. In most cases, zero would still be the optimal size of the transfer.
3. If the spouse's rate is greater than the beneficiaries', the optimal has to be determined independently for each case.

Effects of Spouse's Remaining Life

Table 2-IV gives a breakdown of the optimal decisions by the surviving spouse's remaining life. One would expect that the optimal decision would be to transfer a substantial portion, if not all of the decedent's estate, to the spouse if his(her) remaining life was ten years or less, especially if it were only one year. This expectation is based on the feeling that the credit on prior taxed transfers would reduce all double taxation to zero. A review of Table 2-IV indicates that the expectation is not valid. In only 52 (29 + 11 + 12) out of 3,600 cases

TABLE 2-IV

OPTIMAL DECISIONS BY SPOUSE'S REMAINING LIFE

Percent Transferred	Life 1	4	7	10	13	16	19	22	Total
0	2,091	1,937	1,937	1,982	2,009	2,025	2,033	2,036	16,050
20	627	283	227	216	227	251	226	96	2,153
40	386	191	149	145	85	72	94	36	1,158
50	444	645	524	401	356	117	102	287	2,876
60	29	84	70	42	56	26	18	15	340
80	11	60	64	34	28	21	26	13	257
100	12	400	629	780	839	1,088	1,101	1,117	5,966
Total	3,600	3,600	3,600	3,600	3,600	3,600	3,600	3,600	28,800

where the remaining life was one year, would you transfer more than 50%. An evaluation of these 52 cases indicates that in all but 5 of them the spouse's rate of return exceeded the other beneficiaries' rates by either 24% or 30%. In the other 5 cases the difference was at least 12%. It, therefore, appears that the credit on prior taxed transfers does not completely reduce double taxation. In fact, it takes an abnormally large difference in the rates to offset the additional tax which is due because the transferred amounts are included in two gross estates. The reason that the credit does not completely reduce double taxation is that the actual credit is the lower of either the additional tax in the current estate or a portion of the tax of the prior estate. Therefore, only a minimum credit is available for use. Also, considering that in almost 2/3 of the cases where the remaining life was one year the optimal decision was to transfer zero to the spouse, most decedents should include in their wills a provision that their spouse must survive them by at least six months to qualify for any transfer. Six months is suggested rather than one year so that in those cases in which the surviving spouse's remaining life is long enough to justify a transfer, the transfer will not be disqualified from the marital deduction automatically.

(See the previous discussion of the law on page 16 for further explanation.)

Another expectation is that as the spouse's remaining life increases, the number of cases in which the transfer exceeded 50% would decrease and the number of cases in which the transfer was 50% or less would increase. This expectation also is not valid. The reasons are that the credit on prior taxed transfers does not reduce double taxation as shown above, and that the earnings on the amount transferred and the future estate taxes on those earnings are more important than the credit.

In an attempt to develop a more accurate decision rule, Table 2-IV was subdivided by relative sizes of the estates and relative rates of returns within each life. Analysis of lifes 16, 19, and 22 years pointed out an interesting observation: the only times that transfers of 20%, 40%, 50%, 60% and 80% were optimal were in those cases in which the spouse's rate of return equaled or exceeded the beneficiaries' rate of return by only 6%.

Therefore, it can be concluded:

1. Unless the rates of return are within the very narrow range of 6%, transfer either zero or one hundred percent to the surviving spouse.
2. Use a zero transfer if the beneficiaries' rate

of return exceeds the spouse's; and

3. Use one hundred percent when the spouse's rate is larger.

Cost of Under or Over Qualifying

Because of all the trouble which formula clauses have caused in attempting not to over- or underfund the marital transfer, further analyses were performed on the 2,876 cases where the optimal decision was to transfer 50% to the surviving spouse. The computer program was rerun for these cases with the modification that the amount to be received by the other beneficiaries was calculated for transfers of 45%, 50% and 55% to the spouse. The amounts received with transfers of 45% and 55% were then compared with the result assuming a 50% transfer and the difference in receipts was printed. The results are presented in Table 2-V. The analysis indicates certain points. First, of the 2,876 cases tested, it turned out that in 241 of them, the optimal decision was either 45% or 55%--not fifty. Because the percent transferred to the spouse increased by relatively large fixed amounts (either 10% or 20%), any case in which the actual optimal percent was between two that were used was included as optimal under a wrong percent. This is what happened on those 241 cases.

TABLE 2-V

ADDITIONAL TAX COST OF TRANSFERRING EITHER
45% OR 55% WHEN THE OPTIMAL WAS 50%

Cost ($)		Under-Qualifying	Over-Qualifying
At least	Not more than	Transfer of 45%	Transfer of 55%
1	2,000	415	265
2,001	4,000	305	320
4,001	6,000	213	220
6,001	8,000	170	170
8,001	10,000	141	130
10,001	12,000	98	104
12,001	14,000	114	85
14,001	16,000	89	77
16,001	18,000	86	82
18,001	20,000	76	65
20,001	22,000	72	56
22,001	24,000	55	48
24,001	26,000	62	51
26,001	28,000	45	35
28,001	30,000	44	31
30,001	32,000	49	38
32,001	34,000	35	37
34,001	36,000	20	35
36,001	38,000	35	30
38,001	40,000	39	27
40,001	42,000	29	42
42,001	44,000	23	18
44,001	46,000	29	20
46,001	48,000	26	34
48,001	50,000	21	26
50,001 and other		344	589
Totals		2,635	2,635

Therefore, the results presented earlier in this chapter overstate the number of cases where 50% would be the optimal. This further invalidates the general "rule-of-thumb" of giving 50% to the spouse.

The second point relates to the overall cost of over- and under-qualifying. Although the additional tax cost in some cases exceeded $210,000, in most cases, it was much less. The median cost of under-qualification turns out to be $13,000; the median cost of over-qualification turns out to be $17,000. Therefore, in over 1/2 the cases, the cost was under about $15,000. When this is compared to the size of the decedent's and spouse's estate, which ranged from $200,000 to $2 million, it appears that the cost of under- or over-qualifying may be less than the cost of avoiding them, especially if it means running the risk of having the whole transfer disqualified for the marital deduction.

The final point concerns whether it is better to over- or under-qualify when you cannot transfer exactly 50%. The median tends to indicate that it is better to under-qualify the marital transfer. This is reinforced by comparing the means, which turn out to be $24,555.22 for under-qualifying and $37,453.89 for over-qualifying. Although each case should be evaluated independently, on

the average, it is better to under-qualify than over-qualify.

Summary

The general rule-of-thumb for determining the optimal transfer to the surviving spouse was to transfer exactly 50% except if the spouse's estate was large. The simulation model disproves this general rule.

In place of the previous rule, a more accurate rule can be stated either in terms of rates of return or the spouse's remaining life after decedent's death. In terms of rates it is:

1. If the spouse's rate of return is less than or equal to the other beneficiaries' and his(her) estate is greater than or equal to the decedent's estate, no qualifying transfer should be made.

2. For those cases in which the decedent's estate is larger, transfer between 0% and 40% if the spouse's rate is less than and between 0% and 50% if the spouse's rate equals the other beneficiaries'. In most cases zero will be the optimal size of the transfer.

3. If the spouse's rate is greater than the other beneficiaries', the optimal has to be determined independently for each case.

The individual decision can be determined by rerunning the computer programs developed for this study specifying the exact variables in the case.

In terms of the surviving spouse's remaining life

The new rule is:

1. In most c
unless th
decedent

2. If the re
a) trans
than
b) trans
the c

The model ana

shifting the mari

additional tax cos

that the cost of t

tax, if there is

shifting it woul

In addition t

indicates that the

completely red

the new rule is:

1. In most cases, the transfer should be zero, unless the surviving spouse outlives the decedent by more than 6 months.

2. If the remaining life is sixteen years or more:
   a) transfer zero if the spouse's rate is less than the other beneficiaries',
   b) transfer 100% if the spouse's rate exceeds the other beneficiaries' rates.

The model analyzed the cost of under- or over-qualifying the marital deduction. In many cases, the additional tax cost of under- or over-qualifying was less than the cost of transferring the exact amount. In addition, if there is a choice between over- or under-qualifying it would appear that under-qualifying is better.

In addition to testing the general rule, this study indicates that the credit for prior taxed transfers does not completely reduce double taxation.

CHAPTER 3

GIFTS IN CONTEMPLATION OF DEATH

It has long been recognized that the making of gifts could substantially increase the amount of the planner's total estate which the beneficiaries would receive (through both gifts and death transfers) because of the different rate structures in the gift and estate taxes. It was for this exact reason that the gifts in contemplation of death section was added to the law. The general rule-of-thumb is that (1) gifts should be made so that they are not considered to have been made in contemplation of death whenever possible, and (2) in those cases in which the gift will be ruled to have been made in contemplation of death, there is a possible estate tax savings because the dollars expended for the gift tax paid are not included in the gross estate.

The discussion of gifts in contemplation of death will proceed in the same general format as the previous chapter. First, will be a discussion of the law. This will be followed by a discussion of the use of such gifts

in practice. Next, a simulation model developed to test the general rule-of-thumb will be discussed. This will be followed by an analysis and summary of the results.

Laws Relating To Gifts In Contemplation Of Death

Gift Tax

In conjunction with the estate tax there is a gift tax on transfers made during one's life. Between the two taxes, all transfers not made for full consideration will be taxed unless they qualify for special exception. The gift tax rates run from 2 1/4% to 57 3/4% of the taxable gift.[1] The 2 1/4% rate is levied against taxable gifts of $5,000 or less while the 57 3/4% rate is levied against taxable gifts over $10,000,000. An examination of these rates reveals that they are exactly 3/4 of the estate tax rates. One of the recent reforms in the gift tax law is that this tax is now imposed on a quarterly basis and a return must be filed for each quarter in which there are taxable gifts.

Section 2503 defines taxable gifts as all gifts less the deductions provided in sections 2521-2524. These gifts are to be valued at their fair market value at the

---

[1] I.R.C. §2502

ms of the gift

property.[2] Excl

000 worth of

This exclusion

maximum of $3,00

gifts during the

and wife, each o

than the $3,00

that if the husb

gifts made durin

to each one rega

property.[4] Ther

per donee.

In addition

are reduced by a

decedent is enti

of tax during hi

only after th

the appropria

2. I.R.C. §25

3. I.R.C. §25

4. I.R.C. §25

5. I.R.C. §252

date of the gift minus any consideration received for the property.[2] Excluded from the taxable gifts is the first $3,000 worth of property transferred to a donee per year.[3] This exclusion is per donee; therefore it could equal a maximum of $3,000 times the number of donees who receive gifts during the calendar year. In the case of a husband and wife, each could transfer property to a donee and claim the $3,000 exclusion. The law specifically provides that if the husband and wife consent, they can treat all gifts made during the calendar quarter as being made 1/2 by each one regardless of who actually transferred the property.[4] Therefore a couple can exclude up to $6,000 per donee.

In addition to the $3,000 exclusion, taxable gifts are reduced by a specific exemption. Every citizen and resident is entitled to transfer $30,000 of property free of tax during his/her lifetime.[5] This exemption is used up only after the amounts of the gifts have been reduced by the appropriate amounts of the annual $3,000 exclusion.

---

[2] I.R.C. §2512

[3] I.R.C. §2503(b)

[4] I.R.C. §2503(a)

[5] I.R.C. §2521

electing to tre

pse, a couple g

The second de

for charitable

ible in calc

ns which quali

e same ones which

ction.[8]

The final ded

his is the marita

the amount of

e value of proper

is consistent

ows a deduction

ing spouse but

ss estate. Simi

e marital deducti

perty where the

I.R.C. §2522

This is for g

with the lim

ne tax purposes

These organiz

ribed in §170 w

ction.

I.R.C. §2523(

By electing to treat all gifts as made 1/2 by each spouse, a couple gets an aggregate exemption of $60,000.

The second deduction that is provided for by statute is for charitable gifts.[6] All gifts to charity are deductible in calculating taxable gifts.[7] The organizations which qualify to receive these tax-free gifts are the same ones which qualify an estate to take a charitable deduction.[8]

The final deduction permitted in calculating taxable gifts is the marital deduction. Section 2523(a) provides that the amount of taxable gifts can be reduced by 1/2 the value of property transferred to the donor's spouse. This is consistent with the fact that the estate tax allows a deduction for property transferred to the surviving spouse but it can not exceed 1/2 the adjusted gross estate. Similar to the estate tax provision for the marital deduction, there is no reduction for any property where the spouse receives a terminable interest.[9]

---

[6]I.R.C. §2522

[7]This is for gift tax purposes only. It has nothing to do with the limitation on charitable deduction for income tax purposes.

[8]These organizations appear to be the same ones described in §170 which give rise to an income tax deduction.

[9]I.R.C. §2523(b)

This rule prevents a deduction for property which will not ultimately end up in the donee spouse's estate unless the property is considered a gift by the donee spouse to a third party.

Section 2035 - Gifts in Contemplation of Death

Section 2035 states:

> The value of the gross estate shall include the value of all property to the extent of any interest therein of which the decedent has at any time made a transfer (except in case of a bona fide sale for an adequate and full consideration in money or money's worth), by trust or otherwise, in contemplation of his death.[10]

Therefore, for estate tax purposes only, the property must be added into the decedent's estate. The section goes on to state that all transfers during the last three years of the decedent's life will be deemed to have been in contemplation of death.[11] The fact that the decedent filed a gift tax return and paid the applicable tax will not defeat this presumption.[12]

Although section 2035 states it will not apply in cases of transfers more than three years before death,

---

[10] I.R.C. §2035(a)

[11] Ibid.

[12] Wells vs. U.S. 9 AFTR 1440

there are cases wh

vocable transfer

akes a transfer i

ppointment or a r

his right at deat

ncluded in the gr

f his right befor

ot be included i

f the right occu

t will be deemed

roperty will sti

Therefore, even i

he three year pe

f death provisio

Section 2012 - Cr

When the val

s included in th

ees-the gift ta

ble taxation,

state tax for th

[13]I.R.C. § 20

[14]I.R.C. § 20

[15]I.R.C. § 20

there are cases where it will. They are associated with revocable transfers. The law says that if the decedent makes a transfer in which he retains a general power of appointment or a right to revoke it and he/she retains this right at death the value of the property will be included in the gross estate.[13] If the decedent gives up his right before death, the value of the property will not be included in the estate. However, if the revocation of the right occurs during the last three years of life, it will be deemed in contemplation of death and the property will still be included in the gross estate.[14] Therefore, even if the property was transferred before the three year period it may come under the contemplation of death provision.

Section 2012 - Credit for Gift Tax

When the value of the gift in contemplation of death is included in the gross estate it becomes subject to two taxes-the gift tax and the estate tax. To prevent this double taxation, section 2012 allows a credit against the estate tax for the gift tax paid.[15] This credit may not

---

[13] I.R.C. § 2038 and § 2041

[14] I.R.C. § 2035(b)

[15] I.R.C. § 2012(a)

exceed the gift ta

ntage of the est

of the value of th

gross estate.

Types of gifts in E

Gifts can eit

...n." The estat

"...al" gifts, th

...antages of Gift

The question

been asked many ti

1. the gift tax

...es, and (2) it

the 1/4 of the es

..., gifts will

... with the rema

... of return th

... tax paid. T

... analysis incl

...ables:

Herbert L.
... Model for an
...lished docto
...thern Californi

exceed the gift tax paid and is further limited to a percentage of the estate tax due, based on the relationship of the value of the gift property to the value of the gross estate.

Uses of Gifts in Estate Planning

Gifts can either be "normal" or "in contemplation of death." The estate planner must first look at the "normal" gifts, then at gifts "in contemplation of death."

Advantages of Gifts

The question of whether or not gifts save money has been asked many times before. Usually in answering this, (1) the gift tax rates are compared with the estate tax rates, and (2) it is stated that since the gift tax rates are 3/4 of the estate rates, and since both are progressive, gifts will save money except when large in comparison with the remaining estate. This analysis ignores the rate of return that can be earned by the donor on the gift tax paid. The full analysis was performed by Stone.[16] His analysis included the following parameters and variables:

---

[16]Herbert L. Stone, "A Stochastic Dynamic Programming Model for an Estate Planning Decision Process," Unpublished doctoral dissertation at University of Southern California, August 1965.

1. size of
2. previous
3. number o
4. annual g
5. specific
6. maximum
   given aw
7. estate t
8. rate of
9. income t
10. death ta
11. gift tax
12. provisio
    death; a
13. marital

The conclusion of
series of lifetim
plan.

Gifts in Contempl

After consid
gift to be consid
of death" will be
point of view. T
be mentioned tha

1. size of estate;
2. previous gifts of donor;
3. number of donees;
4. annual gift exclusions;
5. specific gift exemptions;
6. maximum proportion of capital to be given away each year;
7. estate tax exemptions and deductions;
8. rate of earnings of donor and donee;
9. income taxes;
10. death taxes;
11. gift taxes;
12. provisions for gifts in contemplation of death; and
13. marital status as it affects the above items.

The conclusion of the study was that in most cases a series of lifetime gifts will produce an optimal estate plan.

Gifts in Contemplation of Death

After considering gifts in general, the next question to be considered is whether a gift "in contemplation of death" will be beneficial from an estate planning point of view. Two authors have discussed this point. One mentioned that if a gift to charity is ruled in

contemplation of death it increases the estate tax marital deduction without increasing the estate tax.[17] The value of the gift in this case would be added to the gross estate, which would increase both the adjusted gross estate, and the amount that can be transferred to the surviving spouse free of tax under the marital deduction. At the same time, the taxable estate is reduced by the value of the gift since it is to a charitable organization. This will reduce the actual size of the estate and the tax due. This, of course, will only be beneficial if the decedent has provided for a maximum marital deduction transfer to a surviving spouse. For example, assume that decedent's estate is $1,000,000 and he wills 1/2 of adjusted gross estate to his spouse. The estate would be entitled to a marital deduction of $500,000 and have a taxable estate of $440,000 ($500,000 - $60,000). If, on the other hand, he had made a $200,000 gift to charity ruled in contemplation of death, the adjusted gross estate would be $1,200,000. This would entitle the estate to a $600,000 marital deduction and a $200,000 charitable deduction. The resulting taxable estate would

---

[17]Irving Evall, "'Hidden' Estate Tax-Saving Techniques Can Be Found in Interplay of Tax Law," The Journal of Taxation, November 1963, p. 284.

ze $941,000. Not

of death reduced

The second a

mission of the d

the decedent's gr

by adding back to

and the amount of

the size of the e

tax paid is allow

tax. These in c

Although he

gifts in contemp

estate in which

certain importan

return. When yo

of the benefit o

related parts.

amount of the gi

tax. The secon

return that cou

amount of reduc

only includes

[13]*Op. cit.*

be $340,000. Note the gift to charity in contemplation of death reduced the taxable estate by $100,000.

The second author suggested that, because of the omission of the dollars spent for the gift tax paid from the decedent's gross estate, there may be a tax saving.[18] By adding back to the estate the value of the gift, but not the amount of the tax, the gift in fact has reduced the size of the estate tax due. In addition, the gift tax paid is allowed as a credit against the estate tax due. These in combination account for the tax saving.

Although he indicates there may be an advantage to gifts in contemplation of death, he does not try to define in which cases it will appear. He also ignores certain important variables such as possible rates of return. When you include all the variables, the question of the benefit of gifts in contemplation of death has two related parts. The first part is at what point does the amount of the gift tax exceed the reduction in the estate tax. The second part is at what point will the rate of return that could be earned on the gift tax exceed the amount of reduction in the estate tax. This current study includes consideration of both parts of the question

---

[18] Op. cit., Yohlin, p. 47.

an attempt to d

contemplation o

The Simulation Mod

From the pre.

contemplation of d

advantage in maki

gift is added int

be paid. In thi

and tested this

attempt to deter

These gifts are a

Variables

In studying

gifts that will b

key factors shou

following quantit

important and the

1. type of
2. rate of
3. size of
4. past cur
5. current
6. remainin

in an attempt to determine the range of benefit of gifts in contemplation of death.

The Simulation Model

From the previous discussion on uses of gifts in contemplation of death, it appears that there is an advantage in making them, because only the amount of the gift is added into the gross estate, not the gift plus tax paid. In this study a simulation model was constructed which tested this rule over a wide variety of cases in an attempt to determine more precisely the cases in which these gifts are advantageous and to what extent.

Variables

In studying the question of whether or not to make gifts that will be considered in contemplation of death, many factors should be taken into consideration. The following quantitative factors were considered the most important and therefore were included:

1. type of property;
2. rate of return;
3. size of decedent's estate;
4. past cumulative gifts by decedent;
5. current gifts in contemplation of death; and
6. remaining life of planner after gift.

Type of Prop-

Two types of

income producing a

other referred to

rate of return. T

and coin collecti

any increase in va

and separab

as type 2 prop

Rate of Retu

Although typ

rate of retur

return would vary

tax brackets. Th

The donor's

those situations

donee's, was twe

percent less.

For type 1

specified was th

the amount of

amount of i

4½%, 6%, a

Type of Property

Two types of property were considered. They were non-income producing and income producing. The former, hereafter referred to as type 1 property, does not earn a rate of return. This group would include antiques, stamp and coin collections, paintings, etc. Although these items may increase in value, they do not provide the owner with a set and separable income. The latter, hereafter referred to as type 2 property, does earn a set rate of return.

Rate of Return

Although type 2 gifts would yield the same before-tax rate of return to the donor or donee, the after-tax return would vary depending on the donor's and donee's tax brackets. The donee's after-tax return was set at 6%. The donor's returns were 6%, 4½%, and 7½% to cover those situations where his tax bracket equaled the donee's, was twenty-five percent more and twenty-five percent less.

For type 1 gifts, the only rate that had to be specified was the rate that the donor could have earned on the amount of the gift tax paid. To provide the maximum amount of information, the model varied the rate among 4½%, 6%, and 7½%.

Size of Dece

This was var

[illegible],000 by inc

[illegible] as the one

[illegible] 2. The

[illegible] rather

[illegible] to provide

Past Cumula

Past cumula

[illegible] is a progres

[illegible] taxed at

[illegible] the cumulati

[illegible] $500,000 by

[illegible]ected to inc

[illegible] of making

[illegible] additional

[illegible] cumulative

[illegible] has a

[illegible] cumulative

[illegible] assumption

[illegible] included

[illegible] the resu

[illegible] gifts, add

[illegible] even more

Size of Decedent's Estate

This was varied over the range of $200,000 to $2,000,000 by increments of $100,000. This is the same range as the one used for the marital deduction in Chapter 2. The only difference is that the increment is $100,000 rather than $200,000. A smaller increment was used to provide more information.

Past Cumulative Gifts

Past cumulative gifts were included because the gift tax is a progressive cumulative tax with current gifts being taxed at the highest rate applicable. The amount of the cumulative gifts was varied over the range of $0 to $500,000 by increments of $50,000. This range was selected to include individuals who were not in the habit of making gifts as well as ones who were. There is one additional assumption. In all cases, even those where the cumulative gifts were zero, the $30,000 specific exemption has already been used up. In other words, past cumulative gifts were past taxable cumulative gifts. The assumption that the specific exemption has been used up was included for simplicity only. It really does not affect the results. To get the actual total amount of past gifts, add $30,000 to the cumulative gifts as stated. To be even more accurate, add an additional $3,000 per

year per donee to this amount to account for the exclusion allowed by statute.

Current gifts

The model includes current gifts only in the amount that was transferred in contemplation of death. The range was from $50,000 to 80% of decedent's estate before the gift. The increment was by $50,000. Fifty thousand dollars was selected as the starting point and incremental value to allow the numbers to be significant without an excessive number of cases. Eighty percent was selected as the upper limit for two reasons. First, in most cases it leaves the decedent with enough money to pay the gift tax that is due. Second, it recognizes that most people will not give away their entire estate while alive even if they know they are dying. One additional limitation was placed on the range. In no case could the sum of the gift and the gift tax be larger than decedent's estate. This eliminated the net gift circumstances (where the donee pays the gift tax) and the additional computations it would require without restricting the conclusions that can be drawn from this study. The model assumes only one donee.

Remaining Life of Planner

This was included to compute the interest that could have been earned on the amount of the gift tax paid. If

the gift were not made, no tax would be due until after the planner's death. Therefore, to determine if there is a benefit in making gifts in contemplation of death, the estate tax savings must be reduced by the interest foregone. The range was one to three years, varied by one. The range is dictated by statute since it says that no gift made more than three years before death will be considered made in contemplation of death. One year increments were selected to simplify the interest calculation. To have selected a shorter period would have required additional assumptions, such as how often is the rate of return compounded, how much is forfeited because the investment is not held to term, etc.

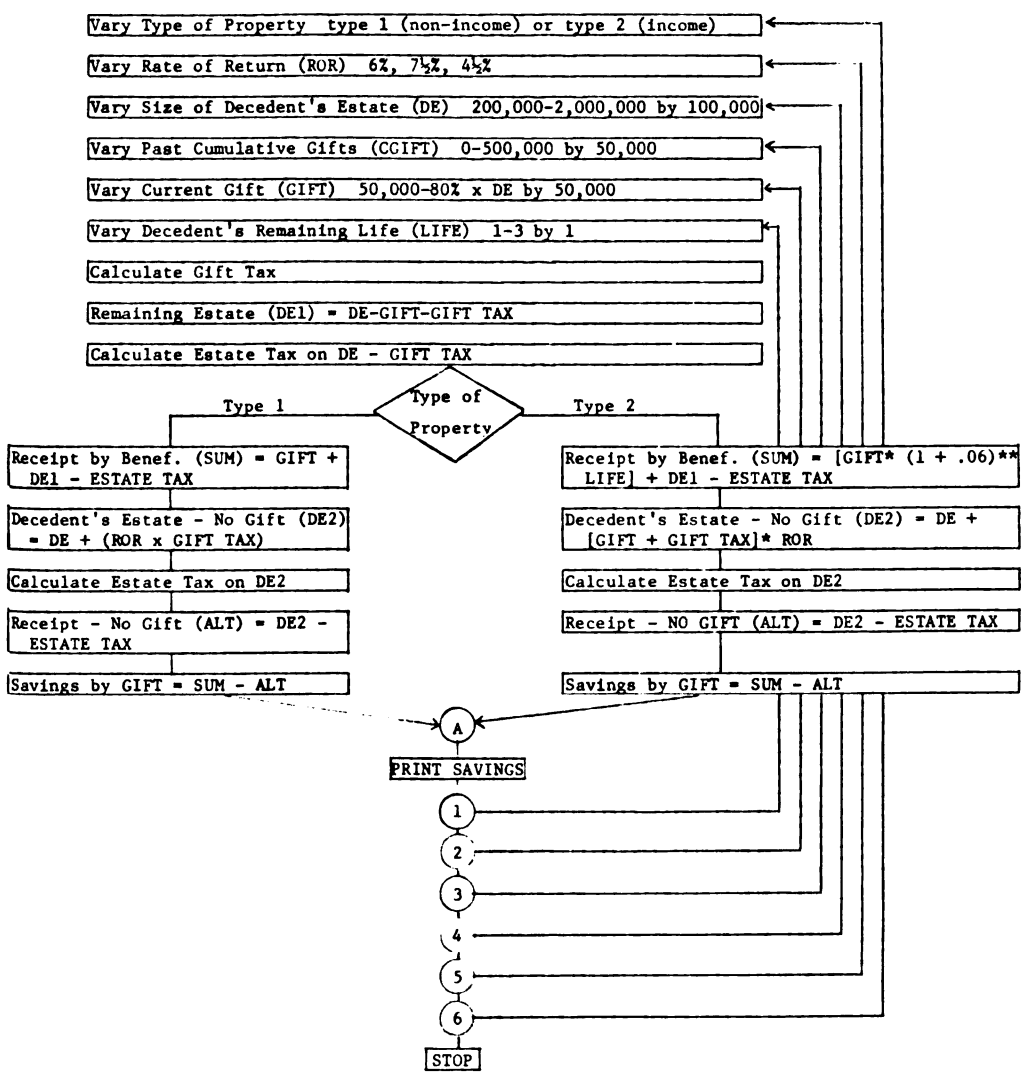
Methodology

The simulation model was programmed on an IBM 360 computer in the Fortran language. Chart 3-I is an overall flow chart of the program. The simulation proceeded as follows: The property was set at type 1. The rate of return was set at 6%. The size of decedent's estate was set at $200,000. Cumulative gifts were set at $0. The size of the gift was set at $50,000. Decedent's life after the gift was initially set at one year. The gift tax that the decedent would have to pay was then

$$\{\{\{

CHART 3-I

FLOW CHART FOR GIFTS IN CONTEMPLATION OF DEATH



calculated. The size of the remaining estate was calculated by subtracting the gift and gift tax paid. The estate tax was calculated on the federal taxable estate. The appropriate credit was allowed for the gift tax. The remainder of the estate after paying the estate tax was added to the value of the gift. The size of the estate, if the gift was not made, was then computed by adding the donor's after-tax return on the gift tax to the estate. The estate tax was calculated for the size of the estate just computed. The remainder of the estate after subtracting the tax was compared to the amount that the donee received if the gift was made. The difference between those two amounts was printed. The remaining life of the decedent was increased by one and then all the calculations were redone. After the decedent's remaining life equalled three, the other variables were increased in turn. After this was completed, the property was set at type 2 and all the calculations were redone.

Limitations

There are three major limitations to this study. The first one is that only gifts of property are considered. This is not a very severe limitation because most actual cases have to do with transfers of property

other than power

The second

rates of return w

umber of differe

Although it is

the exact rates

is a sufficient

sums on the ef

The final

the gift tax ear

the decedent con

based on the re

such as was incl

tion. The reaso

Results

In total, 3

of 16,731, conce

rate of return

ates. Table 3-

[19] A power o
over the right
and or property

[20] See Chapt

rather than powers of appointment.[19]

The second limitation is that only three possible rates of return were considered in order to restrict the number of different cases that were being studied. Although it is unlikely that an actual case would have the exact rates of return used, it is hoped that there is a sufficient number of observations to permit conclusions on the effect of including a rate of return.

The final limitation is that only the gift and/or the gift tax earns a rate of return. In other words, the decedent consumes all, but no more than, the income earned on the residual estate. This is the same limitation as was included in the study on the marital deduction. The reasoning for its inclusion is the same.[20]

Results

In total, 33,462 cases were generated. One-half, or 16,731, concerned type 1 gifts, gifts that do not earn a rate of return while the other half concerned type 2 gifts. Table 3-I presents a breakdown of the cases by

---

[19]A power of appointment gives the recipient of the power the right to determine who shall receive the income and/or property subject to the power.

[20]See Chapter 2 pages 32-34.

type and whether

planning device.

deliberate gift i

This was true for

as well as those

[illegible] cases in w

all the situation

to analyze just

beneficial to de

gifts in contemp

BREAK

Type of Property
Non Income Produc
Income Producing
Total

Table 3-II

remaining life a

cases of typ

advantageous. T

donor's remain

type and whether or not the gift was a beneficial estate planning device. In the large majority of cases, a deliberate gift in contemplation of death was beneficial. This was true for the gifts that earned a rate of return as well as those which did not. Rather than analyze the 32,942 cases in which the gift was beneficial and list all the situations in which they occurred, it was decided to analyze just the 520 cases in which the gifts were not beneficial to determine under what limited situations gifts in contemplation of death should not be made.

TABLE 3-I

BREAKDOWN OF CASES BY TYPE OF PROPERTY AND PLANNING RESULT

Type of Property	Number of Cases		Total
	Gift Advantageous	Gift Not Advantageous	
1. Non Income Producing	16,372	359	16,731
2. Income Producing	16,570	161	16,731
Total	32,942	520	33,462

Table 3-II presents a breakdown by the planner's remaining life and the planner's rate of return of the 359 cases of type 1 property in which the gift was disadvantageous. Table 3-III presents a breakdown by the planner's remaining life and the planner's rate of return

of the 161 cases of type 2 property in which the gift was disadvantageous.

TABLE 3-II

TYPE 1 GIFTS (NON INCOME PRODUCING) THAT WERE DISADVANTAGEOUS
BREAKDOWN BY PLANNER'S REMAINING LIFE AND RATE OF RETURN

Planner's Remaining Life	Planner's Rate of Return 6%	7½%	4½%	Total
1 year	30	32	30	92
2 years	38	43	35	116
3 years	48	64	39	151
Total	116	139	104	359

TABLE 3-III

TYPE 2 GIFTS (INCOME PRODUCING) THAT WERE DISADVANTAGEOUS
BREAKDOWN BY PLANNER'S REMAINING LIFE AND RATE OF RETURN

Remaining Life	Rate of Return 6%	7½%	4½%	Total
1	25	29	15	69
2	16	30	2	48
3	10	34	0	44
Total	51	93	17	161

A comparison of the two tables points out three things. First, if the gift earns a rate of return, it is more likely to be advantageous to give it away. Numerically, there are less than one-half the number of

disadvantageous cases in Table 3-II as there are in Table 3-III. This can be explained by the fact that any accumulated income the gift earns will be exempt from the estate tax even if it is ruled a gift in contemplation of death, because only the value of the actual gift property is included in the decedent's estate. The income earned between date of gift and date of death is not included. Therefore, the estate tax reduces the after-tax rate of return of the decedent in relation to the beneficiary's rate of return.

Remaining Life

The second point has to do with the remaining life of the decedent after the gift. Table 3-II indicates that the longer the decedent lives, the more likely it is that the gift will be disadvantageous. Table 3-III indicates the opposite. Again, this can be explained by the tax savings on the income earned on the gift property. Therefore, the decedent's remaining life expectancy should dictate whether to give income or non-income producing property away as the gift. In other words, if the planner's life expectancy is at least two years, he can reduce the chance that the gift will be disadvantageous by giving away income producing property.

Rate of Return

The third point that is indicated by both is that the difference between the after-tax rate of return of the decedent and the beneficiary is an important consideration. In Tables 3-II and 3-III whan a 7½% rate was used, the highest number of disadvantageous cases occurred. It is reasonable to assume that rate of return would be more important in the type 2 gift situations because the gift as well as the gift tax has a rate of return. A comparison of the tables confirms the assumption.

A further review of Table 3-III indicates there are more disadvantageous cases in the third year than in the second year when the rate of return was 7½%. This is a contradiction to the second observation about the remaining life. The explanation is that the additional return that the beneficiary receives offsets the additional estate tax. The use of only three different rates of return does not permit an exact statement as to how much the rates have to differ before it is significant. It does indicate that it is an important variable which can offset some of the other benefits to gifts of property.

Size of Estate

Tables 3-II and 3-III do not provide the entire picture. To complete it, an analysis was made of the cases in which a loss occurred due to the gifts. From this analysis, several facts became apparent. First, in only three cases was the decedent's estate as large as $400,000. In all other cases the estate was either $200,000 or $300,000. Those three cases occurred during the simulation of type 1 gifts with a 7½% rate of return.

The next two points concern the sum of the past cumulative gifts and current gifts. The first point is that, the sum of the current and cumulative gifts is at least $100,000. The other and more important point is that in only three cases are the sums less than the remaining estate. In four cases, the sum equals the remaining estate, and in all others the sum is greater than the remaining estate. It appears, therefore, that gifts in contemplation of death will be advantageous in most cases. In fact, the only time they will not be is if the original estate is relatively small and the sum of all gifts has reduced the original estate to a small fraction of what it was.

Cost of Gift Ruled In Contemplation

A review of current tax cases indicates that there is still substantial disagreement and confusion concerning whether a gift was in contemplation of death or not. Because of this, one more computer run was analyzed. The run was designed to determine the additional tax liability if a gift was considered in contemplation of death as opposed to the tax if it was not so considered. The range of the decedent's estate, past cumulative gifts and current gifts were the same as past runs. The estate tax was computed with the value of the gift included and then excluded from the taxable estate. The difference was then printed. The additional tax ranged from $2,000 to $11,500. The mean cost was $35,641.20 and the median cost was $31,500. Next, the additional tax was measured as a percent of the original estate. The original estate is defined as the estate before the questioned gift and gift tax is subtracted. From the results presented in Table 3-IV, a question arises whether the cost of a court suit is justified by the tax savings. This is especially true in those cases in which an acceptance of the presumption "in contemplation of death" will be used to bargain for another question to be settled in the taxpayer's favor.

TABLE 3-IV

ADDITIONAL TAX COST AS A PERCENT OF THE ORIGINAL ESTATE IF GIFT CONSIDERED "IN CONTEMPLATION OF DEATH"

Percent of Original Estate at least	But less than	Number of Cases	% of Total
0	1	156	8
1	2	337	18
2	3	378	20
3	4	516	28
4	5	369	20
5	6	87	5
6	7	16	1
Total		1,859	100%

Summary

The original rule-of-thumb was that gifts in contemplation of death would reduce the total tax paid. An overwhelming majority of the cases verified this rule-of-thumb. The only time this rule did not hold was when the decedent's estate was relatively small and sizeable gifts had been made in the past.

The model also indicated that the possible earnings on the gift and the relationship between the planner's tax bracket and the beneficiaries' tax brackets were very important. The income tax consequences of the gift can

verride the es

Therefore, the

nsidered in a

The final

he additional

ation of deat

decedent's estat

he cost of figh

otential tax sa

override the estate tax benefits from making the gift. Therefore, the income tax effect of the transfer must be considered in addition to the estate tax effects.

The final point that the model illustrated is that the additional tax cost of a gift being ruled in contemplation of death is small relative to the size of decedent's estate. This raises the question of whether the cost of fighting the presumption is justified by the potential tax savings.

CHAPTER 4

TRANSFERS TO AN IRREVOCABLE, SIMPLE TRUST

The final pre-death planning device which will be considered is that of transfers to an irrevocable simple trust. Many authors have discussed the advantages and disadvantages of the use of trusts and the different types of trusts. Although they mention the tax benefit, quantification of the minimum size of the trust and how the other variables affect the minimum size has been omitted from the literature. This study will try to determine more specific rules to guide when trusts should be set up and when it would be more beneficial not to set up trusts.

There are several terms which should be defined at the outset. The following definitions will be used throughout the chapter:

> Simple trust - a trust which is required to distribute all of its income currently. In addition it does not make charitable contributions or distributions other than income.[1]

---

[1]Regulation §1.651(a)-1

Complex tr
distribu
makes a c
other tha

Revocable t
dissolve
property.

Irrevocable
can not d
acquire t

Inter vivos
lifetime.

Testamentary
death.

Law Relating to
Estates and Bene

Income Taxation

Section 64
trusts.[2] The i
whether the inc
general, taxabl
the trust or es
be, however, s

Charitable

Individua

gets transfer

total amount o

[2] I.R.C. §

Complex trust - a trust which is not required to distribute all of its income currently or makes a charitable contribution or distribution other than income.

Revocable trust - a trust which the grantor can dissolve and therefore can reacquire the property.

Irrevocable trust - a trust which the grantor can not dissolve and therefore can not re-acquire the property.

Inter vivos trust - a trust set up during one's lifetime.

Testamentary trust - a trust set up after one's death.

Laws Relating to Taxations of Trusts, Grantor and Beneficiaries

Income Taxation of Estates and Trusts

Section 641 imposes an income tax on both estates and trusts.[2] The income includes all items regardless of whether the income is to be held or distributed. In general, taxable income is computed in the same way for the trust or estate as it is for an individual. There are, however, several areas of difference.

Charitable Deduction

Individuals are allowed a charitable deduction for items transferred during the tax year. The limit on the total amount of the deduction is based on the type of

---

[2] I.R.C. § 41(a)

operty trans

nsferred.

e taxpayer's

nts and esta

operty trans

gulations def

et aside for t

e deduction.,

come which is

mount of the d

f the tax exe

mount of exem

ax will be f

nsferred pr

e charitabl

ercentage of

e estate's g

y the ratio

come.[5] If

here is one

[3] I.R.C.

[4] Reg.

[5] Reg.

property transferred and the charity to which it is transferred. In no case can it exceed fifty percent of the taxpayer's adjusted gross income. Section 642 allows trusts and estates to take an unlimited deduction for property transferred to charitable organizations.[3] The regulations define "transferred" as paid or permanently set aside for the charitable purpose.[4] The amount of the deduction, however, must be adjusted for tax exempt income which is included in the transfer. The dollar amount of the deduction is reduced by the dollar amount of the tax exempt income included. In determining the amount of exempt income included, the governing instrument will be followed if it dictates the source of the transferred property. If it is silent on this point, the charitable transfer will be assumed to consist of a percentage of each type of income included in the trust's or estate's gross income. The percentage is determined by the ratio of each individual item to the total gross income.[5] If the transfer included capital gains income there is one further reduction in the deduction. The

---

[3] I.R.C. § 642(c)(1)

[4] Reg. §1.642(c)-1

[5] Reg. §1.165(c)-2

deduction has to be reduced by the amount of the 50% deduction allowed under section 1202.[6] Therefore, although the deduction starts out unlimited, there are certain specific reductions which must be made.

Personal Exemption

For the tax year 1972, an individual is entitled to a personal exemption in the amount of $750. He is also entitled to additional $750 exemptions if he is blind and/or over 65 years of age. Estates and trusts are only entitled to one exemption. For an estate it is $600. For a trust required to distribute all of its income currently, the deduction is $300. For all other trusts, the deduction is $100.[7] The regulations specifically state that the $300 exemption is allowed to all trusts which are required to distribute all income currently, even if they make other distributions and therefore, do not qualify as a simple trust.[8]

Standard Deduction

In computing his taxable income, an individual is entitled to subtract the standard deduction rather than

---

[6]Reg. §1.642(c)-2

[7]I.R.C. §642(b)

[8]Reg. §1.642(b)-1

his itemized deduction. For tax year 1972, the deduction is 15% of adjusted gross income, with a maximum of $2,000. Estates and trusts are specifically prohibited from taking the standard deduction.[9]

Deduction for Distributions

In calculating the taxable income of a trust or estate, it is allowed a deduction which has no counterpart on an individual's return. Both trusts and estates are considered conduits somewhat similar to partnerships. In other words part of its income may be taxed to the beneficiaries and the trust or estate will be allowed a deduction for the amount of income thus taxed. For simple trusts, the deduction is the lower of either the amount of income required to be distributed currently or the trust's distributable net income.[10] Distributable net income is defined as the trust's taxable income adjusted as follows:

1. The deduction for personal exemption is added back.

2. Capital gains are excluded, except if they are allocated to income, distributed to the beneficiaries, or used for a charitable deduction. Capital losses are excluded.

---

[9]Reg. §1.642(i)-1 (a)

[10]Reg. §1.651(b)-1

3. Tax exempt income is excluded after being reduced for the proper proportion of expenses and for charitable contribution which is deductible.

4. The full amount of dividends before the $100 exclusion are included.[11]

For complex trusts (all trusts that are not simple trusts) and estates, the deduction is the lower of either the distributable net income or the amount of income required to be distributed currently plus any other amounts actually paid or disbursed.[12] In all cases, the amount of the deduction does not include any amount that has not been included in the trust's income.[13]

Carryovers

Because trusts and estates are considered partial conduits, a unique situation arises when the trust or estate is terminated. If in the final year the trust's or estate's income is positive, the problem is very simple. When the assets are distributed, the full amount of the distributable net income will also be distributed. Therefore, the full income will be taxed to the beneficiaries. A question arises if there is an unused net

---

[11]Reg. §1.643(a)-0-§1.643(a)-7

[12]Reg. §1.661(a)-2

[13]Reg. §1.651(b)-1 and Reg. §1.661(c)-1

operating and/or capital loss. The question is whether the beneficiaries can benefit from the losses. The Code provides that these losses may be carried over to the beneficiaries succeeding to the property of the trust or estate.[14] The last question that must be asked is, "What if, in the final year, the trust or estate has an excess of deductions over income rather than a net operating or capital loss?" If it were an individual, the loss could not be carried over, and therefore would not produce a tax benefit. For trusts and estates, however, the loss can be carried over on to the succeeding beneficiaries' tax returns.[15] The only restriction is that the loss can not include the personal exemption or a charitable deduction.

Income Taxation of Grantor

No discussion of the taxation of trust income would be complete without at least mentioning the case in which the income will be taxed to the grantor. The grantor will be taxed on the income if he is considered the substantial owner.[16] The regulations point out several cases in

---

[14] I.R.C. § 642(h)

[15] Reg. §1.642(h)-2

[16] I.R.C. §671

which he will be considered the owner. They are:

1. If the grantor has a reversionary interest and expects to take possession within ten years.[17] The major exception to this rule is if repossession will not take place until after the death of the income recipient even if the recipient's life expectancy is less than ten years;

2. If the grantor or nonadverse party has certain powers over the beneficial interest under the trust such as: a limited power to distribute corpus; the power to apply income to support a dependent; the power to determine the beneficial enjoyment of a charitable beneficiary, etc.;[18]

3. If the grantor benefits from certain administrative powers such as the power to vote the stocks held by the trust;[19]

4. If the grantor has the right to revoke the trust, except if it can not be exercised for ten years;[20] and,

5. If the grantor has the right to distribute income to himself or for the benefit of his spouse.[21]

Income Taxation of Beneficiaries

Since trusts and estates are conduits, the beneficiaries will be taxed on at least some of the income.

---

[17]Reg. §1.673(a)-1

[18]Reg. §1.674(b)-1

[19]Reg. §1.675-1

[20]Reg. §1.676(b)-1

[21]Reg. §1.677(a)-1

For simple trusts and estates, the amount of the income that must be reported is the amount of the distribution. In no case, however, can that amount exceed the distributable net income of the trust or estate. Along with the income, any deductions or expenses connected with it are passed through to the beneficiaries and are deductible by them. In all cases, the transfer of specific property, or of a specific sum of money, according to the governing instrument, will be received tax free by the beneficiary.[22] A specific sum of money may not be payable in more than three installments, if it is to be tax free.

Distributions from complex trusts are more complicated. For these, the recipient must make unlimited throwbacks of the income to the year earned. The actual computation of the tax can be done either by the long method or the short-cut (averaging) method. Because of the number of additional variables which would be necessary to include complex trusts in this study, they were omitted.

Estate Planning with Trusts

Revocable Trusts

There are many advantages and disadvantages to using revocable trusts. Rhoads provides the following partial

---

[22] Reg. §1.665(a)-d

list of advantages:[23]

1. obtains professional management of assets;

2. guarantees the orderly succession of management of the assets in case the grantor dies;

3. gives grantor an opportunity to preview a testamentary disposition;

4. reduces the administration and legal expense at death by reducing the probate estate; and

5. maintains privacy by keeping things out of the public's eye.

He then lists as a major disadvantage the cost to set up and run the trust. Two other disadvantages have been suggested by Frielicher.[24] They are:

1. the property is still included in the federal gross estate; and

2. the income is still taxed to the grantor.

In general the revocable trust provides many benefits; the major drawback is that it does not provide any income and/or estate tax advantage.

---

[23]Reid M. Rhoads, "The Revocable Trust: A Useful Estate Planning Tool," The Journal of Accounting, November 1969, p. 88.

[24]Morton Freilicher, Estate Planning Handbook - With Forms, Englewood Cliffs, Prentice-Hall, 1970, pp. 172-3.

Irrevocable Trusts

An irrevocable trust has all of the non-tax benefits of a revocable one plus some tax benefits. There can be an income tax savings by passing the income to others in lower tax brackets. If the trust does not distribute all of its income, or if it distributes it to several beneficiaries, then there can be a tax savings by having the income taxed to several people rather than just the grantor. The 1969 Tax Reform Act has removed some of the benefit of the trust retaining some income. The unlimited throwback rules will defeat any attempt by the trust to accumulate income until the beneficiary is in a lower tax bracket by taxing the income as if it were distributed when earned. This reduces, but does not eliminate, the income tax advantage.[25] There are two major estate tax benefits. First, the property is not included in the grantor's estate so the estate tax will be reduced. Instead though, the grantor may be required to pay a gift tax. Therefore, the total benefit may be less than the actual estate tax saving. The second benefit is that it

---

[25]Some advantage may remain if the beneficiary uses the short-cut method which figures the tax on the average increase in the previous three year period. Also, the interest that can be earned on the postponed tax may be significant.

is possible to skip generations. To skip generations means to provide for several generations to benefit from the trusts income with the property only ending up in the estate of the last generation. Without some form of trust, the property would be subject to estate tax every time it passes from parent to offspring. These tax benefits, however, are only acquired at a price. In this case, the grantor must give up control of the property. From the time the trust is set up, the property and its income are no longer available to the grantor for his use or enjoyment. Setting up an irrevocable trust is equivalent to giving the property away for tax purposes.

Inter Vivos Trust vs. Testamentary Trust

An inter vivos trust is classified as either revocable or irrevocable and has the advantages and disadvantages listed above for the class to which it belongs. It has been suggested that one advantage of an inter vivos trust still in force at death over a testamentary trust is that since the property does not go through probate, it will be available for the decedent's purposes sooner.[26] This appears to be true, but any additional cost due to

---

[26]Edwin H. Corbin, "Living Trusts in Action," Trusts and Estates, July 1967, p. 627.

the trust which reduces the overall size of the estate must be weighed against it. Testamentary trusts have all the non-tax advantages of irrevocable trust. In addition, they provide the decedent with "control from the grave."[27] This means that the decedent can specify how the corpus and income will be used after his death and be relatively certain that his desires will be followed. The same is not always true of outright gifts and bequests.

Funding the Trust

Once it is decided that a trust should be set up, the question becomes how it should be funded. The grantor has several options. He can use either cash or property. If he decides on property the question then becomes whether to use property that has appreciated or depreciated in value. If he decides on cash, which assets should he sell to obtain it? If the trust property is not going to be included in his estate because the trust was an irrevocable inter vivos trust, the question is answered as if the transfer were an outright gift. If the property will be included because the trust was revocable or

---

[27] Op. cit., Kalish and Kupfer, p. 488. This is also true of inter vivos trusts which stay in force after the decedent's death.

testamentary, the following guidelines have been suggested.[28] Appreciated property should be used if the trust is not going to sell it before the grantor's death. The trust will get the step-up in basis to the value at death and the capital gain is not taxed. Property that has declined in value should be sold and the proceeds transferred. By selling the property the grantor will be entitled to a deduction for the loss without the trust receiving a smaller transfer. It could always buy back the property at a later date if the particular property is desired.

An attempt to answer the question whether or not a trust should be set up depends a great deal on the individual case. The decision would be easier if the decedent knew exactly what the dollar effect of the trust would be. The calculator would have to consider the estate tax, gift tax, and income tax, as well as the costs of setting up and running the trust. Since no general rules exist, this study will attempt to determine in which cases the setting up of a trust would be advantageous or disadvantageous from a strictly monetary point of view.

---

[28] Ibid., p. 490.

The Simulation Model

A simulation model was constructed to determine in which cases irrevocable inter vivos simple trusts should be set up. The model restricted itself to monetary considerations only.

Variables

In the model there are seven variables. They are: rate of return, size of decedent's estate, past cumulative gifts by the planner, amount of the transfer to the trust, remaining life of the planner after the transfer, the income tax bracket of the planner, and the income tax bracket of the beneficiary.

Rate of Return

Rates of five and six percent were used. These rates were the before-tax rates of return. Two rates were used to provide information on the effect of a change in the rate of return.

Size of the Decedent's Estate

This variable has been included to see if there is a cut off point below which trusts should not be set up. It was also needed to properly calculate the estate tax savings from having the property excluded from the gross estate. The range was from $200,000 to $2,000,000, the

same range used in the previous parts of this study. The increment was by $200,000.

Past Cumulative Gifts by the Planner

In the analyses performed, this variable ranged from $0 to $500,000 by $50,000. The range was set to allow inclusion of cases in which the decedent had engaged in a practice of making gifts as well as the cases in which he had not. The variable is necessary to permit the proper calculation of the gift tax due because of the transfer.

Amount of Transfer to the Trust

The range studied was from $50,000 to the lower of either eighty percent of the estate before the transfer or $500,000. The selection of $50,000 as the starting point was more or less arbitrary. Although trusts could be established with less, it was felt that this amount was small enough to cover most actual cases, without being too small for any income tax savings to be noticeable. Eighty percent was selected as one upper limit because it would be unrealistic to assume that the decedent would irrevocably give away all of his property. Five hundred thousand was selected as the other limit because a trust with a larger amount probably would have several beneficiaries rather than just one. In addition, a decedent who wished to transfer more than that amount would

probably cons

tional limita

In no case was

sum of the gi

estate. Again

decedent leavi

Tax Brack

The range

percent by inc

to permit the

bracket being

beneficiary's.

full range of

possible, but

seventy percen

Remaining

The range

four was selec

question of gi

was selected a

ing life with

necessarily.

[29]See Cha

probably consider setting up multiple trusts. One additional limitation was placed on the size of the transfer. In no case was the gift allowed to get so large that the sum of the gift and the gift tax exceeded the decedent's estate. Again, it appeared unreasonable to consider a decedent leaving himself without any property.

Tax Brackets of Planner and Beneficiary

The range of both variables was from zero to sixty percent by increments of twenty percent. They were set up to permit the three possibilities - the planner's tax bracket being greater than, equal to, and less than the beneficiary's. It was also intended to cover almost the full range of possible effective tax rates. It is possible, but not frequent, that an individual is in the seventy percent bracket.

Remaining Life of the Planner after the Transfer

The range was from four to twenty years by four. Four was selected as the starting point to eliminate the question of gifts in contemplation of death.[29] Twenty was selected as the upper limit to permit a reasonably long life without increasing the number of cases unnecessarily. It is possible for the decedent to live

---

[29]See Chapter 3.

thirty or for

it would requ

life or to ha

Therefore, to

selected.

Methodology

The simul

computer in th

part of this

The rate of re

was set at $2

1. The tran

decedent's in

party's tax b

the life was

ciary rece

ment. It co

the trust co

the decedent

the transfer

to other re

bounty of

beneficiary

thirty or forty years after establishing the trust, but it would require the decedent to have an extremely long life or to have acquired his estate at a very early age. Therefore, to cover a majority of cases, twenty was selected.

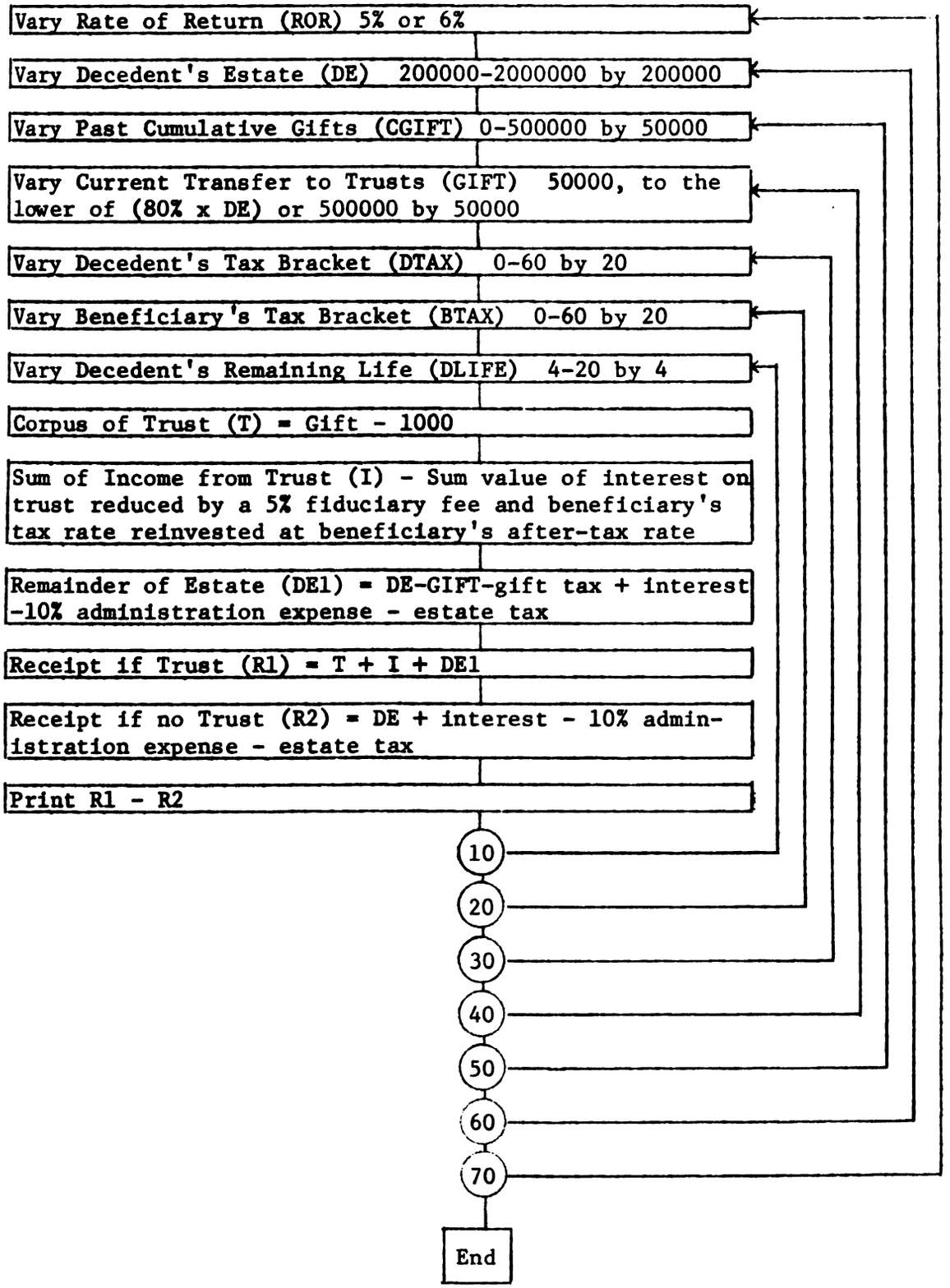
Methodology

The simulation model was programmed on an IBM 360 computer in the Fortran language. Chart 4-I is a flow chart of this model. The simulation proceeded as follows: The rate of return was set at 5%. The decedent's estate was set at $200,000. Past cumulative gifts were set at $0. The transfer to the trust was set at $50,000. The decedent's income tax bracket was set at 0%. The beneficiary's tax bracket was set at 0%. The decedent's remaining life was set at 4 years. The total amount the beneficiary received if the trust was set up was calculated next. It consisted of three parts. The first part was the trust corpus which the beneficiary would receive at the decedent's death. The trust corpus was the amount of the transfer minus $1,000 for setting up the trust and for other related expenses. The second part was the annuity of the trust income which was distributed to the beneficiary annually. This amount was reduced by a 5%

...m Rate of ...
...m Decedent'...
...m Past Cum...
...m Current T... ...ver of (...)
...m Decedent'...
...m Beneficia...
...m Decedent'...
...rpus of Trus...
...m of Income ... ...ust reduced ... ...m rate reinv...
...mainder of ... ...ss administ...
...ceipt if Tru...
...ceipt if no ... ...stration expe...
...ount R1 - R2 ...

CHART 4-I

FLOW CHART FOR SIMPLE INTER VIVOS TRUSTS



trustee f

o pay.

estate.

mount of

interest

educed b

ere estim

as reduce

he estate

mount rec

he amount

et up. T

y the appr

dministrat

as then pr

ncreased a

ch variab

luations

There a

ast one is

nsidered.

the study

ariable onl

trustee fee and by the income taxes the beneficiary had to pay. The third part was the remainder of the decedent's estate. The decedent's estate was first reduced by the amount of the gift and the gift tax. To the remainder, interest was added at the stated rate of return which was reduced by the amount of the administration costs, which were estimated at ten percent of the estate. The interest was reduced by the income tax due on this amount. Finally the estate was reduced by the estate tax. The total amount received by the beneficiary was then compared to the amount that would be received if the trust was not set up. This consisted of the original estate increased by the appropriate amount of interest and reduced by the administration expense and the estate tax. The difference was then printed. After that, the decedent's life was increased and the calculations were repeated. In turn, each variable was increased through its range.

Limitations

There are several limitations in this model. The first one is that only simple, irrevocable trusts were considered. The trusts were made irrevocable to include in the study the income and estate tax benefits that are available only to these trusts. They were all simple

rusts to m

ming the s

the unlimited

longer a bene

ore. This l

lations witho

drawn from th

The seco

tion expenses

rather than c

was done for

would have to

and the distr

assumption wa

the expenses

which would

The nex

estate conti

assumption w

mount of in

of the assum

[30]See C
of the deduc
the estate ta

trusts to minimize the calculations involved in determining the sum value of the income distributions. With the unlimited throwback rules (see page 88), there is no longer a benefit in letting the trust accumulate the income. This limitation, therefore, simplified the calculations without restricting the conclusions that can be drawn from the study.

The second limitation is that all of the administration expenses were deducted on the estate tax return rather than on the estate's income tax return.[30] This was done for simplicity. Without this, other assumptions would have to be made concerning the life of the estate and the distributions from it. It was felt that this assumption was not very restricting, since in most cases the expenses would be deducted on the estate tax return, which would have the higher tax rate.

The next limitation is the assumption that the estate continues to increase after the transfer. This assumption was made to simplify the calculation of the amount of income forfeited due to the gift and gift tax. If the assumption does not apply to a particular case,

---

[30]See Chapter 6 for a discussion of the election as to the deduction of such expenses for income tax versus the estate tax.

the only ha

value of the

The fir

have the sa

as restricti

procedure to

aries have

Results

A total

...es a break

was set at 5

total receipt

When the rate

...ing disad

...ly tends to

very importan

A compar

two different

that the high

the less pro

because of th

the cost of s

The case

one only has to consider the estate plus interest as the value of the estate at the date of transfer.

The final limitation is that all the beneficiaries have the same income tax bracket. This is actually not as restricting as it may appear, since it is a simple procedure to interpolate between cases if the beneficiaries have different brackets.

Results

A total of 84,480 cases were generated. Table 4-I gives a breakdown of these cases. When the rate of return was set at 5%, only 1,097 cases showed a reduction in the total receipts by the beneficiary because of the trust. When the rate was 6%, the number of simulated cases producing disadvantageous results was 1,478. This statistic only tends to support current thinking that trusts are a very important estate planning device.

A comparison of the results in Table 4-I using the two different rates of return supports the assumption that the higher the rate of return the decedent can earn, the less profitable a trust is. It is less profitable because of the earnings forfeited on the gift tax and the cost of setting up the trust.

The cases in which a reduction appears in the

CASES

Rate of Return	
[illegible]	
[illegible]	
Total	

receipts of

of estate,

these facto

example, th

small as $2

a given est

variable.

and the pas

cases in wh

twelve disa

1,400,000

of results

as small as

the disadva

small, from

TABLE 4-I

CASES IN WHICH TRUST ADVANTAGEOUS AND DISADVANTAGEOUS BREAKDOWN BY RATES OF RETURN

Rate of Return	Trust Advantageous	Trust Disadvantageous	Total
5%	41,143	1,097	42,240
6%	40,762	1,478	42,240
Total	81,905	2,575	84,480

receipts of the beneficiaries were first analyzed by size of estate, cumulative gifts and current gifts. None of these factors was the dominant one in and of itself. For example, the disadvantageous cases appeared in estates as small as $200,000 and as large as $1,400,000. Even with a given estate size, cumulative gifts is not an important variable. For example, with the estate set at $200,000 and the past cumulative gifts at $0, there were twenty-two cases in which the trust was disadvantageous. There were twelve disadvantageous cases when the estate was $1,400,000 and cumulative gifts were $0. The same type of results were obtained by using current gifts. Gifts as small as $50,000 (the smallest permitted in this study) were disadvantageous in several cases in estates ranging, again, from $200,000 to $1,400,000.

Since t

be used to i

three variab

tax bracket

However, ins

bracket and

between the

Tables

dent from t

advantageou

exceeds the

income tax

portant tha

Summary

Trusts

estate pla

and non-mon

Generally

be qualifie

The re

hypothesis

Rejecting th

are that

Since the three variables mentioned above could not be used to isolate the disadvantageous case, the remaining three variables (decedent's tax bracket, beneficiary's tax bracket and decedent's remaining life) were analyzed. However, instead of using both the decedent's income tax bracket and the beneficiary's tax bracket, the difference between the tax brackets was used.

Tables 4-II and 4-III show the analyses. It is evident from these tables that the only time a trust is disadvantageous is when the beneficiary's income tax bracket exceeds the decedent's tax bracket. In other words, the income tax savings that a trust could offer are more important than the other monetary considerations.

Summary

Trusts have generally been considered important estate planning devices. They provide important monetary and non-monetary advantages. The question that has not generally been fully examined is whether the trusts can be justified strictly on monetary grounds.

The results of this part of the study support the hypothesis that trusts can save money even after subtracting the costs and fees involved. In fact, the only time that trusts are disadvantageous is when the

C
BREAKDO

| Resident's and
Tax Rates equa |
| --- |
| 0% |
| 20% |
| 40% |
| 60% |
| Resident's Tax
Tax Benefic |
| 20% |
| 40% |
| 60% |
| Resident's Tax
Tax Benefic |
| 20% |
| 40% |
| 60 |
| Total |

TABLE 4-II

CASES IN WHICH TRUST IS DISADVANTAGEOUS
BREAKDOWN BY RELATIVE TAX RATES AND REMAINING LIFE

Rate of Return = 5%	Remaining Life					
	4	8	12	16	20	Total
Decedent's and Beneficiary's Tax Rates equal:						
0%	0	0	0	0	0	0
20%	0	0	0	0	0	0
40%	0	0	0	0	0	0
60%	0	0	0	0	0	0
Decedent's Tax Rate Greater Than Beneficiary's by:						
20%	0	0	0	0	0	0
40%	0	0	0	0	0	0
60%	0	0	0	0	0	0
Decedent's Tax Rate Less Than Beneficiary's by:						
20%	0	1	5	11	15	32
40%	2	10	34	140	252	438
60	5	18	129	211	264	627
Total	7	29	168	362	531	1,097

BREAK

Decedent's and Tax Rates eq	
0%	
20%	
40%	
60%	
Decedent's Tax Than Benefic	
20%	
40%	
60%	
Decedent's Tax Than Benefic	
20%	
40%	
60%	
Total	

TABLE 4-III

CASES IN WHICH TRUST IS DISADVANTAGEOUS
BREAKDOWN BY RELATIVE TAX RATES AND REMAINING LIFE

Rate of Return = 6%	Remaining Life					
	4	8	12	16	20	Total
Decedent's and Beneficiary's Tax Rates equal:	0	0	0	0	0	0
0%	0	0	0	0	0	0
20%	0	0	0	0	0	0
40%	0	0	0	0	0	0
60%	0	0	0	0	0	0
Decedent's Tax Rate Greater Than Beneficiary's by:						
20%	0	0	0	0	0	0
40%	0	0	0	0	0	0
60%	0	0	0	0	0	0
Decedent's Tax Rate Less Than Beneficiary's by:						
20%	0	2	9	14	27	52
40%	4	13	89	232	305	643
60%	5	54	178	251	295	783
Total	9	69	276	497	627	1,478

beneficiary'

planner. If

planner's, t

the larger t

advantageous

must result

None of

minimize the

There are ma

would set up

the total rec

those cases i

ding, this

to be conside

beneficiary's income tax bracket exceeds that of the planner. If the beneficiary's tax bracket exceeds the planner's, then the longer the planner's remaining life, the larger the possibility that the trust will be disadvantageous. In all other cases the setting up of a trust resulted in a larger receipt by the beneficiary.

None of the above conclusions is intended to minimize the non-monetary benefits available from trust. There are many cases in which the decedent should and would set up a trust even though it means a reduction in the total receipts by the beneficiary. However, for those cases in which the monetary benefits are overriding, this study points out the principle variables to be considered.

After th

executor or a

abilities is

time. One of

the estate.

The leng

selected by t

not be longer

ride the exe

purpose of t

which will a

tax year.

The Law Rela

As disc

duties is t

trial. The

the Code. T

CHAPTER 5

SELECTION OF ESTATE'S TAX YEAR

After the decedent's death, there are many things the executor or administrator must do. Included in his responsibilities is seeing that all the tax returns are filed on time. One of the tax returns is the income tax return for the estate.

The length of the estate's first income tax year is selected by the executor or administrator. By law, it may not be longer than twelve months. There are no rules to guide the executor or administrator in the selection. The purpose of this part of the study is to develop a rule which will assist in the selection of the optimal first tax year.

The Law Related to the Selection of the Income Tax Year

As discussed in the previous chapter, the income of estates is taxed in a manner similar to that of an individual. Therefore, an estate comes under section 441 of the Code. This section permits the selection of either

a calendar o

the selectio

filed for th

The exe

tax year eli

first tax ye

ing the dece

selected. F

year for the

by following

the start of

to select a

The fiscal ye

by following

n the last d

If the r

s less than

the Code. Ac

have to be an

was not in ex

the estate is

is less than

Reg. §

a calendar or fiscal year as the estate's taxable year. The selection of the year is made on the first return filed for the estate.[1]

The executor has the right to select as the estate's tax year either a calendar year or any fiscal year. The first tax year of the estate will run from the day following the decedent's death to the end of the tax year selected. For example, if the executor selects a calendar year for the estate, the first tax year will run from the day following death through December 31st, the day before the start of the calendar tax year. If the executor does not select a tax year, a fiscal year will be assigned. The fiscal year will be twelve months starting with the day following decedent's death. All tax years must end on the last day of a month.

If the return for the first tax year covers a period of less than twelve months, it comes under section 443 of the Code. According to this section, the income will not have to be annualized because the taxpayer (the estate) was not in existence for the entire year. Likewise, when the estate is terminated, a return for a period which may be less than twelve months will have to be filed. Again,

---

[1]Reg. § 1.441-1(b)(1)

the income

In th

situation

excess ex

ciaries.

expenses

Chapter

Estate i

Th

an impo

tax yea

tax due

S

less

has be

short

of th

ratem

depos

poss

to w

the income does not have to be annualized.

In the final taxable year of the estate, a unique situation exists. The full amount of the income and excess expenses are deemed distributed to the beneficiaries. Therefore, the beneficiaries may deduct the expenses of the estate on their own tax returns. See Chapter 4 for a more complete discussion of this point.

Estate Planning

The selection of the estate's taxable year can be an important planning device. The selection of the best tax year can mean a significant savings on the income tax due on the estate's income.

Several reasons have been given for the selection of less than twelve full months as the first tax year. It has been pointed out that even though the period is short, the estate is still entitled to the full amount of the exemption.[2] The income will be taxed at lower rates because the smaller amount of income that is reported for the short period will be taxed at the lowest possible rates since it does not have to be annualized. It would appear that major gains would also be received

---

[2]Henry C. Smith, "Frequently Overlooked Pitfalls and Opportunities in Estate Planning," The Practical Lawyer, April 1967, p. 59.

if the final tax year were a short one. If the total life of the estate was set, then the selection of the length of the first tax year so that both the first and the last years were short could provide the estate with one tax year more than it would have if its first year was twelve months long. The advantage of this is that the estate then gets an extra $600 exemption as well as dividing the income into more parts, which reduces the tax rates applied to the income.

As a final reason for selecting a short first tax year, it has been suggested that a short year facilitates large tax-free distributions.[3] Unless the distribution is a bequest of a specific sum of money or property, it will first come out of the estate's distributable net income. If these non-specific distributions are made during the short tax year, most of it will be in excess of distributable net income and therefore will be tax-free because the estate's distributable net income will be small. This, of course, will work only if the estate is liquid enough to make large distributions early in the period of administration.

---

[3]Sig O. Joraanstad, "Planning Estate Distributions; Many Tax-Saving Opportunities Available," The Journal of Taxation, March 1963, p. 149.

The proper

can save money.

beneficiary ha

the estate will

beneficiary's t

tax year ends.

ends 1/31/73,

payer would be

return. If th

estate would

beneficiary w

year.[5]

No matte

should be car

stated as fol

taxable incor

of the exemp

tions which

[4]Ibid.,

[5]If the

tax, the pos

[6]Harry

Trust Esta

American Ba

The proper selection of tax year and distributions can save money.[4] The law provides that if the estate and beneficiary have different tax years, distributions from the estate will be taxable to the beneficiary in the beneficiary's tax year, with or within which the estate's tax year ends. For example, if the estate's fiscal year ends 1/31/73, all distributions to a calendar year taxpayer would be includible on his 1973 calendar year return. If the distribution was made in January, the estate would get an immediate tax deduction, while the beneficiary would not have to pay tax for over one full year.[5]

No matter what tax year is selected, all distributions should be carefully planned. The general rule has been stated as follows.[6] First, leave at least $600 worth of taxable income. This permits the estate to make full use of the exemption granted to it. Second, make distributions which will make the estate's and beneficiary's tax

---

[4]Ibid., p. 149.

[5]If the individual is required to file an estimated tax, the postponement would be less than one year.

[6]Harry M. Halstead and Shelton S. Baker, "Post-Mortem Estate Planning-Federal Tax Considerations," American Bar Association Journal, June 1963, p. 601.

rates equal. The e

shows the estate wi

beneficiary's incor

tuted from the esta

expenses should pr

year of the estate

the excess will be

return. This, of

is in a higher tax

from the deductio

The whole qu

fiscal tax year ha

authors, if they

carrying over exc

ever, what happe

it will have to

able to the bene

beneficiary is i

this carryover w

appear, then, th

it, on the othe

the expenses t

the benefi

relationships a

rates equal. The example presented to illustrate the rule shows the estate with taxable income of $25,000. If the beneficiary's income is $5,000, $10,000 should be distributed from the estate. Last, distributions in payment of expenses should probably be delayed until the final tax year of the estate. If the expenses exceed the income, the excess will be deductible from the beneficiary's tax return. This, of course, presumes that the beneficiary is in a higher tax bracket and will, therefore, benefit from the deductions.

The whole question of the length of the estate's final tax year has not been given proper publicity. Most authors, if they mention it, refer to the possibility of carrying over excess expenses to the beneficiary. However, what happens if the final year shows a net income? It will have to be distributed and therefore becomes taxable to the beneficiary. If the presumption that the beneficiary is in a higher tax bracket is accepted, then this carryover will lead to higher taxes. It would appear, then, that the shorter the final year, the better. If, on the other hand, the estate is constantly having more expenses than income, the longer the tax year, the more the beneficiary will be able to deduct. The interrelationships among the other variables have not been

fully examined. These are the objectives of this part of the study.

The Simulation Model

Variables

There are seven variables in this model. They are: revenue of the estate, deductible expenditures by the estate, the beneficiary's income tax bracket, the life of the estate, the pattern of receipts of the revenue, the pattern of disbursements of the expenditures, and the length of the first tax year.

Revenue of the Estate

This is the total taxable income inflow to the estate before deducting expenses. It ranged from $10,000 to $100,000 by increments of $10,000. Although there are estates with more or less revenue, it was felt that this range would permit the drawing of generally applicable conclusions.

Expenditures by the Estate

This is the total of the deductible expenditures for tax purposes. It includes all the administration costs as well as interest, taxes, etc., which can be deducted on the income tax return. It does not include the estate's $600 exemption. The range was from $10,000 to $100,000 by

increments of $10,000. This is the same range as the revenue. It was selected so that the study would include estates which would have over their entire lives, positive, negative and zero income.

Beneficiary's Income Tax Bracket

The range was from 0% to 60% by increments of 20%. This is the same range as was used in the previous parts of this study.

Life of the Estate

The life was set at either 14, 18, or 24 months. Fourteen months was selected as the shortest term so that each estate would have at least two tax years. It is possible for an estate to be terminated in less time, but usually it would take at least this long for the administration to be handled properly. Twenty-four was selected as the upper limit to include those estates which take two full years to be administered. It is quite possible for the administration to take more than two years, but if it is assumed the administrator tries to distribute the assets as soon as possible, two years should include most estates.

Pattern of Receipts of Revenue

Three patterns were used. A constant pattern was used for the special case of estates which receive the

exact same amount of revenue each month. The other two were an increasing and a decreasing pattern. They were calculated on the sum-of-the-month-digit method.

Pattern of Disbursements of Expenditures

Three patterns were used - constant, increasing, and decreasing. The constant pattern had each month's expenditures equal. It was felt that the expenditures would not follow quite as rigid a pattern as the revenue, therefore, in the increasing and decreasing patterns, instead of using the sum-of-the-months-digit method, the following was used. Either the first or last month had 25% of the expenditures and in all the other months the expenditures were constant. Although no estate would have these exact patterns it was felt that they were close enough to real situations that useful conclusions could be drawn from them.

Length of the First Tax Year

The length was varied from one month to twelve months by increments of one month. This covered all the possibilities from the shortest to the longest first year.

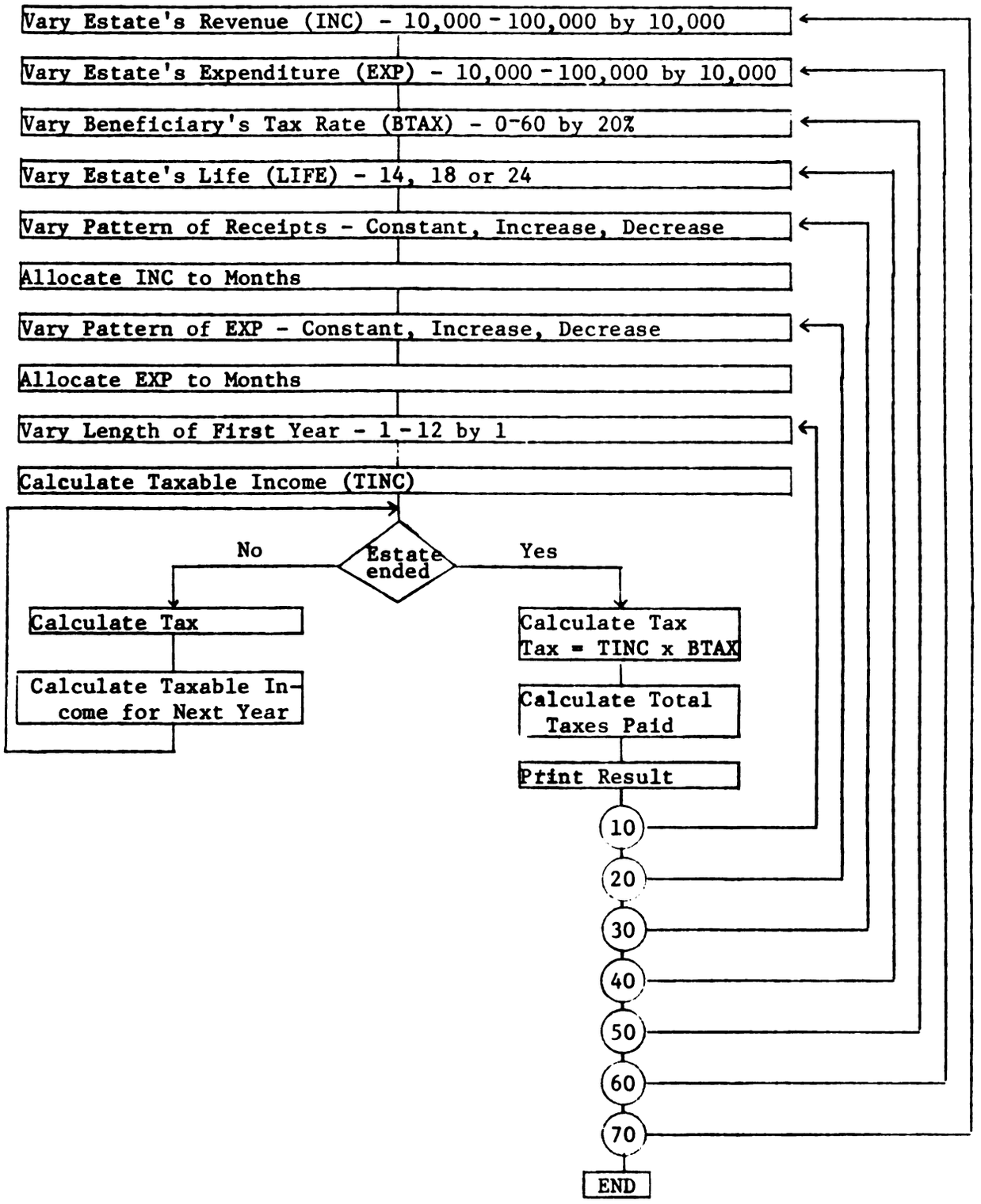
Methodology

Chart 5-I is a flow chart of the program written to simulate the model. The program proceeded as follows:

First, the revenue of the estate was set at $10,000. Next the expenditures were set at $10,000. The beneficiary's tax bracket was then set at 0%. The life of the estate was set at 14 months. A pattern for the revenue was selected and the revenue was allocated to the different months. A pattern for the expenditures was selected and the disbursements were allocated to the appropriate month. Next, the length of the first tax year was selected. It was started at one month. The income or loss was calculated for the tax year. If the estate did not end with the tax year, the tax due if any was calculated. Then the income for the next tax year was calculated. If the estate still had not terminated the previous step was followed. If the estate had ended the income or loss was assumed transferred to the beneficiary, and the tax due or benefit was calculated. The total taxes paid because of the estate's income was then calculated. This included all taxes paid by the estate and beneficiary, minus any reduction in the beneficiary's tax because of the carryover of excess expenses. The result was then printed. The first tax year was then increased by one month. The calculations were redone. After the tax year equalled 12 months, the other variables then changed in turn.

CHART 5-I

FLOW CHART FOR TAX YEAR



Two progra

the exact proce

an adjustment.

that for the e

liquidate an i

revenues would

reducing the

the tax year

reduction if

distributed t

equally becau

possible var

the inclusio

having to wr

limitations

There

First, the

rather thar

beneficiary

were made

the estate

smallest

largest

Two programs were written. The first one followed the exact procedure outlined above. The second one made an adjustment. In the second program, it was assumed that for the estate to pay its taxes, it would have to liquidate an income producing asset. Therefore, future revenues would be reduced. This was accomplished by reducing the revenue in each month following the end of the tax year by 1/2 of 1% of the tax due. There was no reduction if the estate ended and the income was deemed distributed to the beneficiary. Each month was reduced equally because it would be impossible to guess all the possible variations in future income flow. This permitted the inclusion of the assumption of lost income without having to write many different programs.

Limitations

There are several limitations in these models. First, the study was concerned about the total tax paid rather than the actual distributions received by the beneficiary. Since it was assumed that no distributions were made out of the estate's income during the life of the estate, the length of the first year which led to the smallest tax due was also the length which led to the largest distribution to the beneficiary. They both give

the same optimal length for the first tax year. No distributions were allowed during the estate's life to show the maximum effect of the selection of the tax year. To allow earlier distributions would confuse the issue of the length of the first tax year with the question of which assets would be distributed. To allow earlier distributions would require additional assumptions concerning the availability of assets for distribution and the effect on future cash inflows and outflows.

The next limitation is that all expenses are deducted on the income tax return. Some of the expenses could have been deducted on the estate tax return instead. The choice is the topic of the study presented in Chapter 6. Therefore, the option was not included in this part of the study.

The next limitation is that there is either only one beneficiary or that all the beneficiaries have the same income tax bracket. This is the same assumption as was used in the previous studies.

The final limitation is that none of the income is "in respect of the decedent." This was left out because it was felt that the inclusion would result in a confusion of the original purpose of this chapter. The entire question of income "in respect of the decedent" should be the topic of a separate study.

Results

On each ru

were generated.

length of first

sented in Table

result without

the tax paid b

with the adjus

that the benef

very important

length of the

decision of wh

should be use

of the analys

the adjustmen

A review

decision is

will have tw

if the benef

or receive m

study this p

[7] Since

selection o

Results

On each run of the computer program, 10,800 cases were generated. A breakdown of the optimal decisions by length of first tax year and life of the estate is presented in Tables 5-I and 5-II. Table 5-I shows the result without the adjustment for the interest lost on the tax paid by the estate. Table 5-II shows the result with the adjustment. A comparison of the two tables shows that the benefit from the postponement of the tax is not very important. In other words, the decision as to the length of the tax year is not greatly affected by the decision of which assets (income or non income producing) should be used to pay the tax. Because of this, the rest of the analysis will be restricted to the run in which the adjustment for interest was made (as in Table 5-II).

A review of Table 5-II indicates that the optimal decision is to select a tax year so that the final year will have twelve months.[7] This decision would be optimal if the beneficiary either will pay less tax on the income or receive more benefit from the expenses. To further study this point Table 5-III was prepared.

---

[7]Since the length of the estate was pre-set, the selection of the first year dictates the final year.

TABLE 5-1

OPTIMAL DECISIONS REGARDING LENGTH OF FIRST TAX YEAR
BREAKDOWN BY LIFE OF ESTATE AND LENGTH OF FIRST TAX YEAR

No Reduction in Revenue to Pay the Tax*

Length of First Year	Life of Estate		
	14	18	24
1	545	78	70
2	1,511	96	101
3	107	128	123
4	99	169	161
5	93	718	255
6	94	1,485	131
7	97	53	161
8	96	57	57
9	60	64	28
10	64	48	27
11	70	58	643
12	764	646	1,843
Totals	3,600	3,600	3,600

*Assets were non income producing.

TABLE 5-II

OPTIMAL DECISIONS REGARDING LENGTH OF FIRST TAX YEAR
BREAKDOWN BY LIFE OF ESTATE AND LENGTH OF FIRST TAX YEAR

Reduction in Revenue due to Payment of Tax*

Length of First Year	Life of Estate		
	14	18	24
1	557	81	80
2	1,514**	102	107
3	101	126	123
4	100	179	174
5	88	709	255
6	82	1,472**	133
7	91	57	161
8	88	58	49
9	71	62	28
10	62	48	22
11	72	60	648
12	774	646	1,820**
Totals	3,600	3,600	3,600

*Assets were income producing and 6% investment interest was lost through payment of estate income tax.
**Final tax year will contain twelve months.

Table 5-III shows a breakdown of the optimal decisions by estate life, net income and length of first tax year. This table seems to support the observation presented above. Only when the estate income is zero does the majority of the optimal decisions indicate selecting a tax year which will place other than 12 months in the final year.

To complete this part of the analysis, Table 5-III was broken down even further. Table 5-III A shows the optimal decisions for those cases in which the estate's income was negative except those cases in which the beneficiary's tax bracket was zero. These cases were left out of Table 5-III A as being very unlikely. It should be noticed that over 75% of the cases within each estate life indicate that a twelve month final year is optimal. Tables 5-III B and C breakdown the cases in which the estate's income is positive and the beneficiary's tax rate is either 0% or 20% or 40% or 60%. In those cases in which the beneficiary's tax rate is low (0% or 20%) the majority of cases indicates selection of a tax year so that the final year has 12 months. When the beneficiary's tax rate is high (40% or 60%), the majority indicates the selection of a tax year so that the final year has one month.

TABLE 5-III

OPTIMAL DECISIONS REGARDING LENGTH OF FIRST TAX YEAR
BREAKDOWN BY NET INCOME, LIFE OF ESTATE AND LENGTH OF FIRST TAX YEAR

Length of Tax Year	Life Net Income	14			18			24		
		Negative	Zero	Positive	Negative	Zero	Positive	Negative	Zero	Positive
1		75	115	367	29	30	22	37	5	38
2		973	22	519	25	39	38	28	14	65
3		11	10	80	22	28	76	23	23	77
4		25	8	67	14	29	136	14	43	117
5		37	1	50	115	93	501	17	17	221
6		29	0	53	948	13	511	9	29	95
7		25	16	50	26	0	31	6	24	131
8		16	19	53	26	0	32	13	13	23
9		5	14	52	19	10	33	13	1	14
10		5	4	53	12	0	36	9	2	11
11		4	12	56	2	21	37	146	103	399
12		415	139	220	382	97	167	1,305	86	429
Totals		1,620	360	1,620	1,620	360	1,620	1,620	360	1,620

TABLE 5-III A

CASES IN WHICH ESTATE INCOME NEGATIVE (OMITTING CASES IN WHICH BENEFICIARY'S TAX BRACKET WAS ZERO) BREAKDOWN OF OPTIMAL DECISIONS BY LIFE OF ESTATE AND LENGTH OF FIRST TAX YEAR

Length of First Year	Life of Estate		
	14	18	24
1	67	20	29
2	969	19	20
3	11	15	18
4	25	14	8
5	36	113	8
6	29	941	8
7	25	26	6
8	16	26	9
9	5	19	12
10	5	12	9
11	4	2	146
12	23	8	942
Total	1,215	1,215	1,215

TABLE 5-III B

CASES IN WHICH ESTATE INCOME WAS POSITIVE AND BENEFICIARY'S TAX RATE WAS EITHER 0% OR 20% BREAKDOWN OF OPTIMAL DECISIONS BY LIFE OF ESTATE AND LENGTH OF FIRST TAX YEAR

Length of First Year	Life of Estate		
	14	18	24
1	19	6	35
2	469	6	57
3	49	16	63
4	39	49	79
5	35	45	109
6	33	479	17
7	31	29	32
8	30	25	11
9	28	22	6
10	25	25	0
11	23	24	12
12	29	84	389
Totals	810	810	810

TABLE 5-III C

CASES IN WHICH ESTATE INCOME WAS POSITIVE AND BENEFICIARY'S TAX RATE WAS EITHER 40% OR 60% BREAKDOWN OF OPTIMAL DECISIONS BY LIFE OF ESTATE AND LENGTH OF FIRST TAX YEAR

Length of First Year	Life of Estate		
	14	18	24
1	348	16	3
2	50	32	8
3	31	60	14
4	28	87	38
5	15	456	112
6	20	32	78
7	19	2	99
8	23	7	12
9	24	11	8
10	28	11	11
11	33	13	387
12	191	83	40
Totals	810	810	810

Tables 5-IV, 5-V and 5-VI show a breakdown of the optimal decisions by the flow of revenue and expenditures. A review of these tables points out two things. First, the pattern of the receipts of revenue is more important than the pattern of the expenditures. This can best be seen by reviewing the number of cases that are included in the length of the first year which has the largest number of cases. The number is reasonably constant within each type of revenue flow, while it is not within each type of expenditure flow. The second point is that the final tax year should be long if the period will show excess expenditures and short if it will show a profit. Table 5-VI is the best example. With a decreasing receipt flow, the chart shows no cases in which a final year of one month will be optimal. A twelve month final year is optimal in most cases under this condition. If the revenue increases, the number of cases in which the optimal decision is a one month final year is large; however a twelve month final year is still better in more cases.

Tables 5-IV, 5-V and 5-VI do not give a clear indication of optimal decisions because they include all cases without distinguishing those cases in which the estate income is positive from those cases in which the

TABLE 5-IV

OPTIMAL DECISIONS REGARDING LENGTH OF FIRST TAX YEAR
BREAKDOWN BY FLOW OF REVENUE AND EXPENSES
Life of Estate - 14 Months

Length of Tax Year	Flow: Revenue / Expenditure	Constant Constant	Constant Increase	Constant Decrease	Decrease Constant	Decrease Increase	Decrease Decrease	Increase Constant	Increase Increase	Increase Decrease
1		78	99	12	89	102	28	61	54	34
2		209	217	162	183	199	167	143	120	114
3		13	14	13	13	1	28	6	9	4
4		9	13	14	13	1	28	6	9	4
5		0	9	12	13	11	16	8	11	8
6		6	4	9	9	8	13	11	12	10
7		0	4	9	18	9	14	9	16	12
8		0	0	6	8	9	23	13	16	13
9		0	0	6	6	8	11	13	14	13
10		0	0	5	4	3	11	12	13	14
11		0	0	3	5	1	10	15	22	16
12		85	40	149	47	41	55	100	102	155

TABLE 5-V

OPTIMAL DECISIONS REGARDING LENGTH OF FIRST TAX YEAR
BREAKDOWN BY FLOW OF REVENUE AND EXPENSES
Life of Estate - 18 Months

Length of Tax year	Flow: Revenue / Expenditure	Constant / Constant	Constant / Increase	Constant / Decrease	Decrease / Constant	Decrease / Increase	Decrease / Decrease	Increase / Constant	Increase / Increase	Increase / Decrease
1		0	0	0	22	23	0	11	14	11
2		0	0	0	35	30	0	12	13	12
3		0	0	0	42	47	1	14	11	11
4		0	0	0	52	67	31	11	9	9
5		89	129	89	26	37	100	80	86	73
6		226	231	187	155	144	159	139	124	107
7		0	0	8	8	8	10	7	9	7
8		0	0	5	7	7	12	9	11	7
9		0	0	4	12	5	12	8	12	9
10		0	0	4	1	2	9	10	12	10
11		0	0	3	1	0	22	10	12	12
12		85	40	100	39	30	44	89	87	132

TABLE 5-VI

OPTIMAL DECISIONS REGARDING LENGTH OF FIRST TAX YEAR
BREAKDOWN BY FLOW OF REVENUE AND EXPENSES
Life of Estate - 24 Months

Length of Tax Year	Flow: Revenue / Expenditure	Constant Constant	Constant Increase	Constant Decrease	Decrease Constant	Decrease Increase	Decrease Decrease	Increase Constant	Increase Increase	Increase Decrease
1		12	12	0	18	18	0	6	8	6
2		12	21	0	28	21	2	7	10	6
3		6	11	0	40	44	6	8	4	4
4		8	8	0	53	62	12	6	13	12
5		10	10	2	90	105	16	8	7	7
6		7	9	2	20	30	43	8	7	7
7		0	6	4	6	12	115	7	6	5
8		5	6	2	0	0	23	5	4	4
9		0	6	3	0	0	6	5	4	4
10		6	3	2	0	0	0	5	3	3
11		78	109	127	0	0	0	103	115	116
12		256	199	258	145	108	177	232	219	226

income is negative. This breakdown was done. For example, with an estate life of 18 months, positive income and constant flows of both revenue and expenditures, 89 cases showed a 5 month tax year as optimal and 91 cases showed a 6 month tax year as optimal. Further analysis by beneficiary's tax bracket showed that in 81 of the 89 cases the tax bracket was 20% or less. In 80 of the 91 cases the tax bracket was 40% or more. Therefore, it appears that no one variable dictates the correct first tax year and that all of them must be considered. This could be done by rerunning the computer program written for this study for the specific variables.

The importance of selecting the optimal length of the first tax year cannot be overstated. A comparison of the tax cost of selecting twelve months rather than the optimal was done. The range of the additional tax cost was from under $200 to about $40,400. The arithmetic mean was $4,590.15. This is significant when it is remembered that in about 1/2 the cases the estate had a net loss. The arbitrary selection of either a 12 month fiscal or a calendar year for the first tax year could adversely affect the beneficiary.

Summary

It has been suggested in tax literature that there is an advantage to selecting a short first income tax year. The exact cases in which it would be beneficial were not specified.

This part of the study tried to determine if a short year should be selected. Although a general rule could not be determined from the cases generated, it does indicate that the emphasis has been in the wrong place. In selecting the tax year, the effects of the distribution of the income to the beneficiary in the final year should be considered the primary determinant. An exact solution would require an examination of the variables in the individual cases. This does not mean that an arbitrary selection of either 12 months fiscal or a calendar year is acceptable. As was pointed out, the selection of the wrong year could significantly reduce the receipts by the beneficiary.

CHAPTER 6

DEDUCTION OF ADMINISTRATION EXPENSES

The executor or administrator of an estate should attempt to minimize the amount of taxes the estate has to pay. To do this, he should claim all the deductions permitted under the code. There are several deductions which can either be claimed on the estate tax return or the estate's income tax return. The return selected will have an effect on the total tax paid. Which return they should be deducted on is the topic of this chapter.

The Laws Affecting Deductions

Section 2053-Deduction on the Estate Tax Return

Section 2053(a) allows a deduction in determining the taxable estate for expenditures for funeral expenses, administration expenses, claims against the estate, and indebtedness on property included in the estate. Subsection (b) allows a deduction for administration of property not subject to claims, but properly included is the gross estate.

The regulations define administration expenses as "expenses...actually and necessarily incurred in the administration of the decedent's estate; that is, in the collection of assets, payments of debts, and distribution of property to the persons entitled to it."[1] The regulation goes on to state that unless the expenditure is essential to the administration of the estate, it will not be deductible. The fact that it will benefit the beneficiaries is not sufficient. The regulation specifically lists executor's commissions, attorney's fees and miscellaneous expenses as being included in administration expenses.

The amount of the executor's commission and attorney's fees that may be deducted are the amounts actually paid by the return's filing date and the "amount which...may reasonably be expected to be paid."[2] If the will specifies the commission to be paid, then that is the amount which may be deducted. However, if instead of a fee, the executor is to receive a bequest, then no deduction is allowed.

"Miscellaneous administration expenses include such

---

[1]Reg. §20.2053(a)

[2]Reg. §20.2053-3(b) and (c)

expenses as court costs, surrogates' fees, accountants' fees, appraisers' fees, clerk hire, etc."[3] Brokerage fees and other selling expenses are deductible on necessary sales of property. Necessary sales are ones made in order to pay expenses, debts or to effect distribution. Included in the term selling expenses is the difference between the amount realized on a sale to a dealer and the lower of either the fair market value used for estate tax purposes or the fair market value on date of sale.

Deductions on the Income Tax Return

The Code permits the estate to take a deduction on its income tax return for those deductions which an individual would be allowed. In addition, Reg. §1.212-1(i) permits a deduction for the administration expenses. These expenses include fees and litigation expenses. The regulation specifically excludes deductions allocated to tax exempt income.

Administration expenses are deductible on either the estate tax return (§2053 and §2054) or the estate's income tax return (§212). These expenses may not be deducted on both returns at the same time. Section 642(g) denies the income tax deduction for any administration expenses

---

[3]Reg. §20.2053-3(d)(1)

that are deductible on the estate tax return unless a waiver of the estate tax deduction is filed. The selection of the return on which the expenses will be deducted is left up to the executor's or administrator's discretion. In fact, Regulation §1.642(g)-2 permits, "One deduction or portion of a deduction... for income tax purposes... while another deduction or portion is allowed for estate tax purposes." The only restriction on the selection is that once the option to deduct the expenses on the income tax return is made and the form filed, the decision may not be reversed.[4] The executor can change the election if the expenses are deducted on the estate tax return. The denial of double deduction does not apply to items deductible because they relate to "income in respect of a decedent."[5]

Uses in Estate Planning

Where to Deduct Expenses

Several authors have noted the options open as to the deduction of the administration expenses. None of the authors has determined which return should be used, although several have set forth the variables they think

---

[4]Reg. §1.642(g)-1

[5]Reg. §1.642(g)-2

should be considered. For example, one author has suggested comparing the tax brackets and deducting the expenses on the return with the highest bracket.[6] The author realized that the solution was not that simple by going on to state that in determining the tax bracket, the marital deduction provision should be considered.

Another author listed the following variables: estate tax rate, income tax bracket of the estate, beneficiary's income tax bracket, and the timing of income and other expenses.[7] Although this list seems complete, it still doesn't state how all the variables should be evaluated and upon what basis the final decision should be made.

Available Double Deductions

As was mentioned earlier, section 642(g) denies a double deduction of expenses. However, some authors still feel that there can be a double deduction.

One author points out that taxes, interest, and

---

[6]Henry C. Smith, "Frequently Overlooked Pitfalls and Opportunities in Estate Planning," The Practical Lawyer, April, 1967, p. 58.

[7]Sig O. Joraanstad, "Planning Estate Distributions; Many Tax-Saving Opportunities Available," Journal of Taxation, March, 1963, p. 149.

business expenses that are associated with "income in respect of the decedent" are deductible on both the estate tax return and the estates' income tax return.[8] Since these expenses do appear on both returns they can be viewed as double deductions. It is more logical to view the whole transaction as the inclusion of the net income of the decedent in the gross estate and the levying of an income tax on the same net income.

Another author points out that the deduction of commissions and selling expenses of assets included in an estate has been allowed on both the estate and income tax return.[9] They were deducted on the estate tax return as administration expenses and used as a reduction in the gross receipts from the sale on the income tax return. This would appear to be a true double deduction since the rationalization is not very convincing that an offset to sales price is not a deduction.

It is possible that there are other double deductions, although it would probably take the definition of the item for income tax purposes as something similar to a reduction rather than as an expense for it to escape section 642(g).

---

[8] Op. cit., Smith, p. 59.

[9] Philip E. Heckerling, "Post-Mortem Double Deduction," Tax Advisor, December 1970, p. 764.

The Simulation Model

A simulation model was developed to test the very simple rule that the expenses should be deducted on the return with the highest tax rate.

Variables

Four variables were considered. They were: the marital deduction, the size of the decedent's estate, the income of the estate, and the amount of the administrative expenses.

Marital Deduction

The marital deduction had two levels: zero and one-half the adjusted gross estate. Zero was selected to cover all those cases in which less than the maximum amount was transferred to the surviving spouse. One-half the adjusted gross estate was selected because it is the maximum amount for estate tax purposes. If more was transferred to the surviving spouse, it would not affect the result.

Size of Decedent's Estate

The size of the decedent's estate ranged from $200,000 to $2,000,000 by increments of $200,000. This was the same range as was used in the other parts of the study. The size of the estate was used rather than just

the tax rate for two reasons. The first reason was so that the effective tax rate could be determined and the second was hopefully to allow conclusions to be drawn based on the relationship between the size of the estate and amount of income.

Income of the Estate

The income of the estate was varied from $10,000 to $390,000 by amounts of $20,000. This range was used to approximate most of the probable earnings that an estate would have. The full range of incomes was used for each estate rather than just specifying a rate of return to attempt to measure the effect of many different earnings rates.

Amount of Administration Expenses

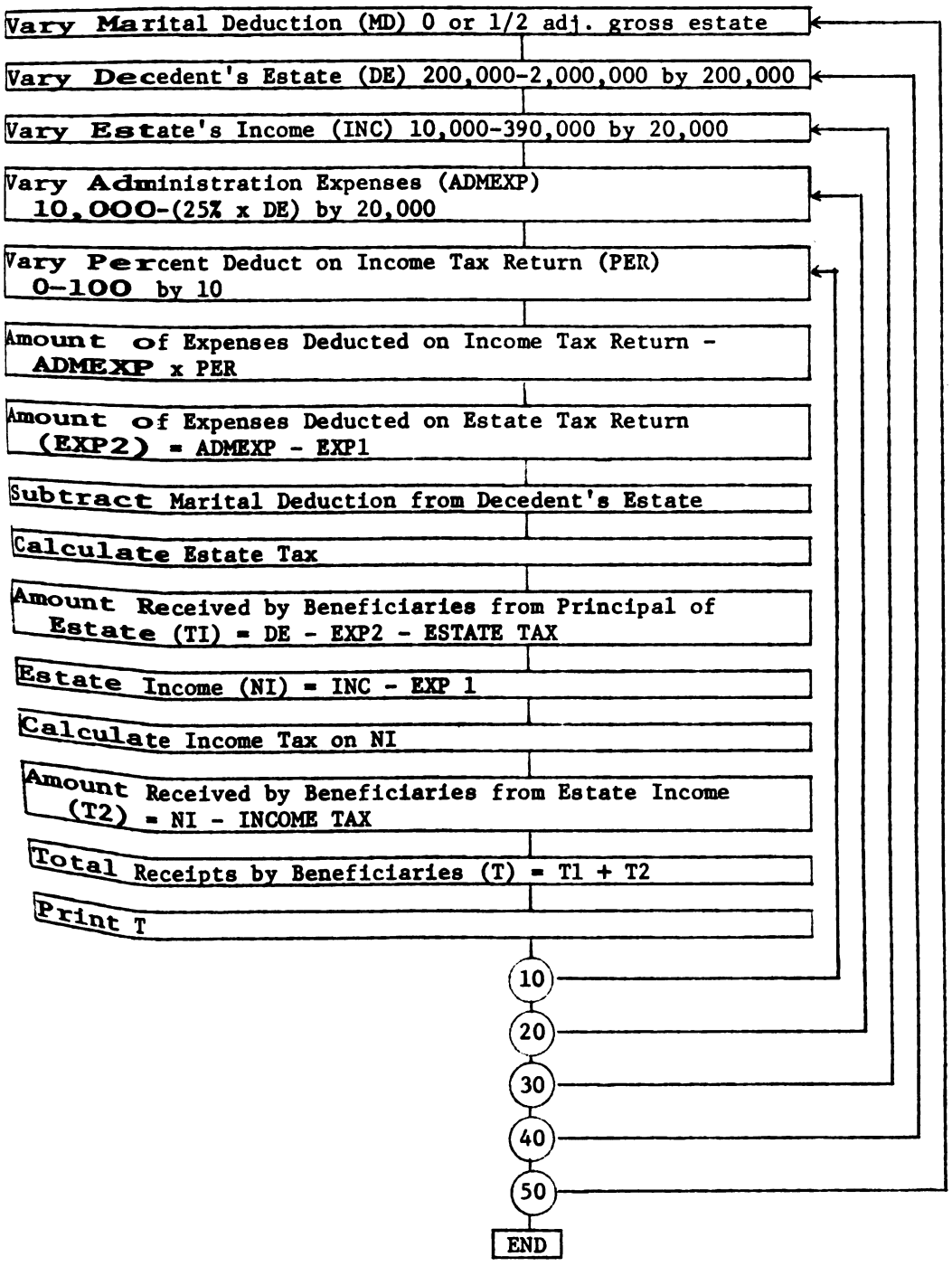
The final variable was the amount of the administration expenses. The amount went from $10,000 to twenty-five percent of the decedent's estate by amounts of $20,000. An upper limit of twenty-five percent of the estate is probably larger than any actual deduction. It was used to try to determine the effect of varying the expenses.

Methodology

Chart 6-I is a flow chart of the program used to simulate the model. The program proceeded as follows. First, set marital deduction equal to zero. Then the estate was set at $200,000. The estate's income was set at $10,000 and the administration expenses were set at $10,000. The percent of the expenses deducted on the income tax return was set at 0%. The dollar amount of the expenses deducted against income was calculated by multiplying the percentage by the total amount of the expense. The difference between the total expense and the amount deducted against income was assumed deducted for estate tax purposes. The amount of the marital deduction was subtracted from the estate. The amount of the estate tax due was calculated. The amount transferred to all beneficiaries from the gross estate was calculated by subtracting the administration expenses deducted for estate tax purposes and the estate tax from the gross estate. The net amount of income reported was calculated by subtracting the expenses for income tax purposes from the estate's income. The income tax due on this amount was calculated. The amount that would be transferred to the beneficiaries out of income was calculated by subtracting the income tax from the net income reported.

CHART 6-I

FLOW CHART FOR DEDUCTION OF ADMINISTRATIVE EXPENSES AGAINST INCOME TAX OR ESTATE TAX



The sum of the two transfers to the beneficiaries was calculated and printed out. The percent deducted against income was increased by 10% and all the calculations were redone. After the percent equaled 100, all the other variables were increased in turn.

Limitations

There are three major limitations on this study. The first one is that all the income and expenses are incurred within one tax year. However, this is not very restrictive. If the estate earns income in more than one year, then the amounts used are the amounts earned or spent within the first year.

The second limitation is that the life of the estate is one day longer than the estate's tax year. This was done to prevent any of the estate's (otherwise final year) income or expenses from appearing on the beneficiaries' tax return. This limitation will be removed later. See the discussion under results on page 143.

The final limitation is that the estate makes no distributions out of income during the tax year. This was also included to prevent any of the income being taxed to the beneficiaries in order that all of the income appear only on one income tax return.

Results

Summary

A total of 5,600 cases were generated. In 2,800 cases, the marital deduction was zero. In the other 2,800 cases, the marital deduction equaled one-half the adjusted gross estate. Comparing the cases with the marital deduction to their counterparts without marital deduction indicated that a greater amount of the expenses will be deducted against income tax if the estate tax marital deduction is claimed.

A review of the zero marital deduction cases showed that in all cases in which the income was as low as $10,000, all the expenses were used on the estate tax return. As the estates increased from $200,000 to $1,000,000, the optimal decisions were to leave estate income after expenses of between $9,000 to $15,000. As the estates increased from $1,000,000 to $2,000,000, the optimal amount of income increased to around $20,000 to $25,000. The program does not allow more precise answers because the allocation of expenses was limited to set percentage of income ranging from 0% to 100%.

A review of the fifty percent marital deduction cases showed that when income was as low as $10,000, a portion of the expenses was subtracted on the income tax

return. As the size of the estates increased from $200,000 to $1,000,000, the optimal decision was to leave estate income between $0 to $5,000. As the estates increased to $2,000,000, the amount of income varied in the range of $0 to $10,000, but almost never above $10,000.

Effective Rate of Taxation

The review of the two computer runs did not provide sufficient information to determine a decision rule. Therefore, further analysis was performed on the optimal decision for each case. First, the marginal rate of income tax was determined by looking up the taxable income on a tax table. Then, the marginal rate of estate tax was determined by looking up the taxable estate in the estate tax table. The two marginal rates were compared.

For those cases in which the marital deduction was zero, the optimal decision allocated the administration expenses so that the marginal rates of tax were equal. The marginal rates are, therefore, the effective rates of taxation, and the decision rule becomes to allocate the expenses so that the effective tax rates are equal.

For those cases in which the marital deduction was fifty percent, the optimal decision allocated the administration expenses so that the marginal income tax rate

equaled one-half the marginal estate tax rate. It therefore appears that when the maximum marital deduction is used, the effective estate tax rate is one-half the marginal rate. A general decision rule can be formulated as follows: allocate the administration expenses so that the effective rates of taxation are equal.

Income Taxed to Beneficiaries

In the final estate income tax year, the income of the estate will be included in the beneficiaries' income tax returns. Therefore, it was felt that the limitation prohibiting any income from being taxed to the beneficiaries was extremely restrictive. To remove this limitation, the two programs were rerun with the addition of one extra variable. This was the marginal (effective) income tax rate of the beneficiaries. The rate went from 10% to 60% by 10%. This rate was applied to the estate's net income rather than the rates from the table.

The results from these two runs were similar to the two previous runs. If the marital deduction was zero, the optimal allocation made the marginal tax rates equal. When the marital deduction was fifty percent, it made the effective tax rates equal. The effective estate tax rate was one-half the marginal rate. Therefore, the general

decision rule

also.

Summary and C

This st

the admini

certain wit

provide the

The ru

administra

effective

rate is e

come tax

income i

on wheth

claimed.

effecti

effecti

In

state's

sion woul

ined bec

fort tax

State's

decision rule formulated above will apply to this case also.

Summary and Conclusions

This study tested the very simple decision rule that the administration expense should be deducted on the tax return with the highest rate. This rule will not always provide the optimal decision.

The rule can be restated as follows: deduct the administration expenses on the tax returns so that the effective tax rates are equal. The effective income tax rate is either the estate's or beneficiary's marginal income tax rate, depending on whose income tax return the income is included. The effective estate tax rate depends on whether or not the maximum marital deduction is claimed. If it is not, then the marginal rate is the effective rate. If the maximum is claimed, then the effective rate equals one-half the marginal rate.

In none of the cases was the selection of the estate's income tax year a decision variable. Its inclusion would not affect the decision rule that was determined because the rule is based on the tax rate and a short tax year does not necessitate annualization of the estate's income. From an operational point of view, the

selection of

first ignorin

should then b

and the esta

equate the e

estate's in

In these c

manner whi

is done by

highest r

third.

always

estate's

sicate t

by the

selection of the estate's first tax year should be done first ignoring all administration expenses. The expenses should then be allocated between the estate tax return and the estate's income tax return in a manner which would equate the effective tax rates.

The decision rule holds even in those cases in which all three tax returns are considered (the estate tax, the estate's income tax and the beneficiaries' income tax). In these cases, the expenses should be allocated in a manner which equates all three effective tax rates. This is done by allocating the expenses to the return with the highest rate first, then the next highest, and then the third. The amount allocated to the estate tax return is always deductible. To allocate the expenses between the estate's income and the beneficiaries' incomes will necessitate the proper timing of the payment of these expenses by the executor or administrator.

CHAPTER 7

ALTERNATE VALUATION DATE

The computation of the estate tax depends upon the value of the estate. The valuation is done either at the date of the decedent's death or six months later at the executor's or administrator's election. It would appear, and is generally suggested, that the date selected should be the one which would produce the lower valuation and hence the lower estate tax. However, it has also been proposed that by selecting the date which produces a higher estate tax an overall benefit will be derived from the reduction in the income tax on a gain from the future sales of the inherited property. This portion of the current study is designed to investigate the use of the alternate valuation date and provide data to indicate if it is beneficial to select the alternate date when the estate has increased in value.

Law Relating to Valuation

Generally, the estate is valued at date of death. However, section 2032 provides for an alternate valuation.

The actual value under this alternate method for an individual piece of property depends on whether the property has been ". . . distributed, sold, exchanged, or otherwise disposed of, within six months after decedent's death. . ."[1] or not. If the property has not been distributed, it is valued as of six months after death. If it has been distributed within that time period, the value at date of distribution is used. In determining the value at any point other than at death, any change due to the passage of time is to be ignored.[2] For example, the decline in the value of a patent simply because of the reduction in remaining life would be ignored.

The regulations define distributed as "all possible ways by which property ceases to form a part of the gross estate."[3] The property may be distributed by:

"(i) the executor;
(ii) a trustee or other donee to whom the decedent during his lifetime transferred property included in his gross estate under sections 2035 through 2038, or section 2041;
(iii) an heir or devisee to whom title passes directly under local law;
(iv) a surviving joint tenant or tenant by the entirety; or
(v) any other person."[4,5]

---

[1] §2032(a)(1)

[2] §2032(a)(3)

[3] Regulation §20.2032-1(c)(1)

[4] Regulation §20.2032-1(c)(3)

[5] Section 2035 refers to transfer in contemplation of death. Sections 2038 and 2041 refer to powers of appointment. See Chapter 3 for full discussion.

It appears that any transfer by a party connected with the estate to an unrelated party will qualify as a distribution.

The selection of the alternate date is made by the executor on the estate tax return.[6] The only restriction on the election is that the value of the estate at the time of the decedent's death be greater than $60,000, otherwise the value at time of death governs.[7]

The beneficiary's basis on inherited property is either the fair market value at death or six months after death if the executor selects the alternate valuation date.[8] In other words, the beneficiary's basis is the value used for estate tax purposes.[9] The holding period for any asset whose basis is determined by the above rule is considered automatically to have been held for more than six months.[10] Therefore, any gain from the sale of a capital asset will be treated as a long term capital gain.

---

[6] §2032(c)

[7] Regulation §20.2032-1(b)

[8] I.R.C. §1014b

[9] For a minor exception to the rule see McConnel, 29BTA32 and Evans, 29BTA710.

[10] I.R.C. §1223(11)

Estate Planning

The alternate valuation date was placed in the law to permit estates which had declined in value to pay a lower tax. Although this was the intention, the use of the alternate date is not limited to these circumstances.

Certain authors have recommended the use of the alternate date even though the estate had increased in value. For example, it has been pointed out that if the value at the alternate date has increased but is less than $120,000, and provision had been made for the use of the maximum marital deduction, the alternate value is preferred. The reason was that the beneficiaries would get a stepped up basis without having the estate incur any estate tax.[11]

Two advantages of using a higher valuation have been suggested. The first one relates only to assets which will give rise to a depreciation or depletion deduction to the beneficiary. If these assets have a higher basis, then the amount of the deductible depreciation or depletion will increase. The suggestion is that the income tax savings from the increased deduction might offset the

---

[11]Lynal E. Hoffman, "Estates and Trusts-Tax Alternatives," The Oklahoma CPA, January 1968, p. 7.

additional estate tax.[12] The second suggestion concerns assets which will be sold by the beneficiary. The idea is that the higher basis may reduce the tax on the gain on the sale sufficiently to offset the added estate tax. It is interesting to note that one author said that the sale must be within a reasonable time while the other said within a short time.[13] In other words, both authors recognized that the interest which could be earned on the additional estate tax should be included although they did not state it specifically.

The Simulation Model

The simulation model was constructed to test the advantage of selecting the alternate value, even though higher, because of the reduction in the taxable gain on the future sale of the assets by the beneficiary.[14]

Variables

Six variables are included in the model. They are: type of assets, marital deduction, size of estate,

---

[12]Arch B. Gilbert, "Post-Mortem Estate Planning," Oklahoma Law Review, February 1968, p. 18.

[13]Ibid., p. 17 and Hoffman, Op. cit., p. 7.

[14]The model does not include depreciable property because its inclusion would require assumptions concerning useful life, depreciation methods and depreciation recapture which could vary greatly.

alternate value of estate, date of sale and beneficiary's income tax rate.

Type of Asset

The two types considered were capital assets and non-capital assets. This dichotomy was used because of the difference in the income taxation of the gain on the sale. Non-capital gains are taxed at the beneficiary's ordinary tax rate. Long-term capital gains on the other hand are effectively taxed at one-half the beneficiary's regular tax rate with an upper limit of 25% effective rate on the first $50,000 of gain. The holding period of the capital assets was ignored because they are automatically considered to have been held for more than six months and to result in long-term capital gains.[15]

Marital Deduction

The amount of the transfer that qualified for the marital deduction was set either at zero or one-half of the decedent's estate. One-half was selected as the upper limit because larger transfers would only give rise to a deduction of one-half and therefore would have the

---

[15]Only the extreme cases in which either all the assets are capital or all the assets are not capital were considered. For cases in between the results could be interpolated.

same result. This was included to determine if the marital deduction would affect the decision.

Size of Estate

The size of decedent's estate, valued at date of death, was varied from $200,000 to $2,000,000 by increments of $100,000. This is the same range as was used in the previous parts of this study.

Alternate Value of Estate

The initial value was set at 110% of the date of death value. It was increased by amounts equal to 10% of the date of death value until it reached the upper limit of 200% of date of death value. The alternate value was the fair market value six months after death. This value would be used for the estate tax purposes if the executor or administrator selected the alternate valuation date. This amount was also the amount received by the beneficiary on the sale of the assets.

Date of Sale

The date of sale was included to calculate the amount of interest forfeited on the additional estate tax paid. It was varied from zero months to one hundred twenty months by increments of six months. Zero months means that the beneficiary sold the asset immediately after receiving the property from the executor. The range was

selected to cover the most realistic possibilities. Sales more than one hundred twenty months after distribution were not considered because it was felt they were not contemplated when the suggestions to use alternate value were made.[16]

Beneficiary's Income Tax Bracket

The income tax rates considered were 0, 20, 40, 60, and 70%. Zero and seventy percent were selected because they are respectively the lowest and highest tax rates applied against income. Twenty, forty, and sixty were selected as being the most probable tax rates from which the beneficiary's income tax would be computed.

Methodology

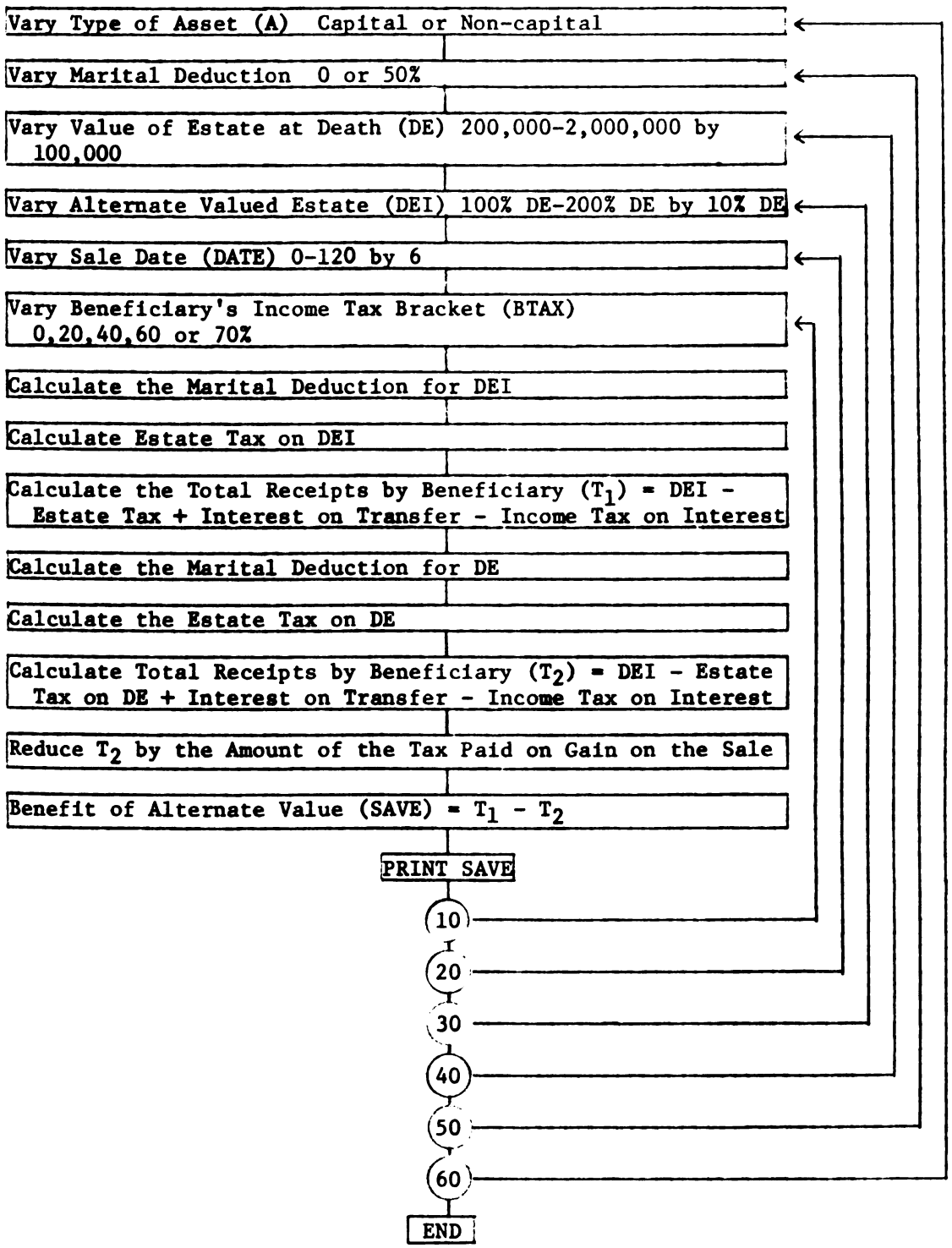
Chart 7-I is a flow chart of the computer program written to simulate the model. The program proceeded as follows: The assets were set as capital assets. The marital deduction was zero. The value of the estate at death was $200,000. The alternate value was $220,000. The assets were sold immediately (zero months after receipt). The beneficiary's income tax bracket was set at 0%. The total receipts by the beneficiary upon completion of the sale was calculated if the alternate value was

---

[16]See page 151.

CHART 7-I

FLOW CHART FOR USE OF ALTERNATE VALUATION



used. The amount was arrived at by first determining the estate tax due on this alternate value after subtracting the marital deduction. The estate tax was subtracted from the value of the estate and interest was added to date of sale at a rate of 5% compounded semi-annually.[17] The income tax that the beneficiary would pay on the interest was subtracted. The result was the total receipts because the beneficiary sold the assets at their alternate value. The total receipts of the beneficiary, if the date of death value was used, was then calculated. The estate tax due on this lower value was calculated. The estate tax on the date of death value was subtracted from the alternate value (the actual value at distribution). Interest was then added to the net receipts. This was reduced by the income tax which would be due. The amount was further reduced by the tax that the beneficiary would have to pay on the gain on the lower basis. The difference in the total receipts was then printed. The beneficiary's tax bracket was then set at 20%. All the calculations were redone. After the tax bracket reached 70% the other variables were increased in turn.

---

[17]The 5% rate was used instead of the 6% rate as in the other parts of this study because the amounts in this model are compounded semi-annually rather than annually.

Limitations

There are several limitations on this model. First, a decline in the value of the estate between date of death and the alternate date was not included. The model only wanted to test the advantage of the alternate value when the assets increased in value. The alternate value would automatically be used if the value declined because it would provide immediate savings and because long term capital losses are only one-half deductible. Second, the assets neither increased nor decreased in value between the alternate date and the date of sale. This is a minor restriction because any additional increase would, in most cases, be taxed exactly the same way regardless of whether the alternate or date of death values was selected. The declines in value were omitted so that the maximum benefit possible from the elimination of the tax on the gain could be determined.

The final limitation is that the beneficiary's basis equals the value used for estate purposes. This assumes that none of the distribution to the beneficiary was considered sales by the estate to the beneficiary. This assumption does not alter the model materially. It does permit the use of a single income tax rate rather than at least two -- the estate's and the beneficiary's.

Results

A total of 79,800 cases was generated. Table 7-I gives a breakdown of these cases by type of asset, amount of marital deduction and whether or not the alternate date was advantageous. Analysis of Table 7-I indicates that in 32,449 cases (8,669 + 23,780), or about 41% of the total number, the alternate value was advantageous. Further analysis of the table indicates that the type of asset and amount of the marital deduction are important variables. Therefore, the results will be presented next independently for each of the four possible combinations.

Capital Asset - Zero Marital Deduction

There were only 46 cases in this group of 19,950 cases in which the selection of the alternate date was advantageous. An analysis of those cases indicated several things. First, in all of them, the beneficiary's income tax bracket was 70%. Second, the size of the estate at death was either $200,000 or $300,000. The value at the alternate valuation date was at least 160% of the date of death value. Finally, all sales of the assets from estates with an original value (a) of $200,000 took place within 36 months and (b) of $300,000 took place within 18 months.

Reviewing all the factors just mentioned, it would be highly unlikely that these 46 cases represent actual situations. Therefore, if the estate consists of capital assets and does not claim a marital deduction, the higher alternate valuation date should not be used. The results are reasonable because these gains are taxed at a maximum of one-half the beneficiary's income tax rate.

TABLE 7-I

ADVISABILITY OF USE OF ALTERNATE DATE
BREAKDOWN OF CASES BY TYPE OF ASSET, MARITAL
DEDUCTION AND ADVANTAGE OF USING ALTERNATE DATE

Type of Asset	Marital Ded.	Alternate Date Advantageous 0%	Alternate Date Advantageous 50%	Alternate Date Not Advantageous 0%	Alternate Date Not Advantageous 50%	Total
Capital		46	10,285	19,904	9,665	39,900
Not Capital		8,623	13,495	11,327	6,455	39,900
Total		8,669	23,780	31,231	16,120	79,800

Capital Asset - Fifty Percent Marital Deduction

Of a total of 19,950 cases in this group, 10,285 indicated that the alternate date should be selected.

An analysis based on the beneficiary's income tax bracket indicated that in none of the cases in which the beneficiary's income tax rate was 20% or less did the alternate date prove to be advantageous. On the other hand, if the beneficiary's tax rate was 60% or more, the

alternate valuation basis was always advantageous. If the beneficiary's tax bracket was 40%, both possibilities existed.

In an attempt to draw a decision rule for the 40% tax bracket cases, they were analyzed based on the size of the estate and future sale date. Table 7-II presents the results of this analysis.

Table 7-II permits decisions to be made for many cases. For example, if the estate at death is valued at $1,000,000 and all the assets will be sold within 42 months, the alternate date should be selected. If the assets will not be sold within the next 90 months, then the date of death value should be selected. For cases which fall between the times given in the table, individual decisions have to be calculated taking into consideration all the variables. This could be done by rerunning the computer program written for this chapter using the specific variables.

Not Capital Assets - Zero Marital Deduction

Of 19,950 cases, 8,623 indicated the selection of the alternate date.

Similar to the previous group, in no case in which the beneficiary's tax rate was 20% or less was the

TABLE 7-11

TABLE FOR SELECTION OF CASES IN WHICH ALTERNATE DATE IS ADVANTAGEOUS
CAPITAL ASSETS - FIFTY PERCENT MARITAL DEDUCTION
- BENEFICIARY'S TAX RATE IS 40%

Size of Estate at Death	Alt. Date Advantageous if Assets Sold on or Before (months) (c)	Alt. Date Not Advantageous if Assets Sold on or Before (months) (c)
200,000	120	a
300,000	108	a-
400,000	96	108
500,000	90	108
600,000	84	102
700,000	66	90
800,000	60	90
900,000	54	90
1,000,000	42	90
1,100,000	36	66
1,200,000	30	54
1,300,000	24	54
1,400,000	18	54
1,500,000	12	48
1,600,000	0	36
1,700,000	b	36
1,800,000	b	36
1,900,000	b	36
2,000,000	b	24

a. Since the study did not use a sale date further than 120 months, a sale date for which the alternate value shouldn't be used could not be determined.

b. In these cases, the alternate value was only beneficial in some of the cases even though there was immediate sale of the assets.

c. For cases which fall between the dates listed and those cases in which the alternate date is not always advantageous, individual decisions must be calculated.

alternate date of benefit. When the beneficiary's tax rate was 40%, the alternate date was advantageous only if the value of the estate at date of death was $1,200,000 or less. Even if the estate was less than this amount, the alternate date should not always be used. Table 7-III indicates for these estates when the alternate should always be selected and when it should never be selected. Table 7-III has been constructed and should be used similar to Table 7-II.

The cases in which the beneficiary's tax rate was 60% are presented in Table 7-IV and are similar to the 40% cases in that an absolute answer cannot be given for all cases. When the value of the estate was $1,400,000 or less, the alternate date was always advantageous. Table 7-IV is similar to Tables 7-II and 7-III.

When the beneficiary's tax bracket was 70%, the alternate date was always advantageous.

Not Capital Asset - Fifty Percent Marital Deduction

A total of 13,495 cases out of 19,950 indicated that the alternate date should be used.

In no case in which the beneficiary's tax bracket was zero was the alternate date of benefit to the beneficiary. In all cases in which the income tax bracket

TABLE 7-III

TABLE FOR SELECTION OF CASES IN WHICH ALTERNATE DATE IS ADVANTAGEOUS
NOT CAPITAL ASSETS - ZERO MARITAL DEDUCTION
BENEFICIARY'S TAX RATE IS 40%

Size of Estate at Death	Alt. Date Advantageous if Assets Sold on or Before (months) (b)	Alt. Date Not Advantageous if Assets Sold on or Before (months) (c)
200,000	96	108
300,000	78	96
400,000	60	90
500,000	42	90
600,000	30	54
700,000	18	54
800,000	0	36
900,000	a	36
1,000,000	a	24
1,100,000	a	12
1,200,000	a	12
1,300,000 - 2,000,000	Do not select alternate date	

a. In these cases, the alternate value was only beneficial in some of the cases even though there was immediate sale of the assets.

b. For those cases which fall between the dates listed and those cases in which the alternate date is not always advantageous, individual decisions must be calculated.

TABLE 7-IV

TABLE FOR SELECTION OF CASES IN WHICH ALTERNATE DATE IS ADVANTAGEOUS
NOT CAPITAL ASSETS - ZERO MARITAL DEDUCTION
BENEFICIARY'S TAX RATE IS 60%

Size of Estate at Death	Alt. Date Advantageous if Assets Sold on or Before (months)	Alt. Date Not Advantageous if Assets Sold on or Before (months)
200,000 - 1,400,000	Alt. Date always advantageous	
1,500,000	108	a
1,600,000	96	a
1,700,000	90	a
1,800,000	78	a
1,900,000	66	a
2,000,000	60	120

a. Since the study did not use a sale date further than 120 months, a sale date for which the alternate value shouldn't be used could not be determined.

of the beneficiary was 40% or more, the alternate was of value to him(her).

The cases in which the tax bracket was 20% are analyzed by size of estate and sale date in Table 7-V. This table is similar to Tables 7-II-7-IV and can be used the same way.

TABLE 7-V

TABLE FOR SELECTION OF CASES IN WHICH ALTERNATE DATE IS ADVANTAGEOUS
NOT CAPITAL ASSET - FIFTY PERCENT MARITAL DEDUCTION
BENEFICIARY'S TAX RATE IS 20%

Size of Estate at Death	Alt. Date Advantageous if Assets Sold on or Before (months) (c)	Alt. Date Not Advantageous if Assets Sold on or Before (months) (c)
200,000	108	a
300,000	84	102
400,000	72	90
500,000	66	90
600,000	60	78
700,000	54	72
800,000	48	72
900,000	42	72
1,000,000	36	72
1,100,000	30	48
1,200,000	24	42
1,300,000	18	42
1,400,000	12	42
1,500,000	6	42
1,600,000	0	30
1,700,000	b	24
1,800,000	b	24
1,900,000	b	24
2,000,000	b	18

a. Since the study did not use a sale date further than 120 months, a sale date for which the alternate value shouldn't be used could not be determined.

b. In these cases, the alternate value was only beneficial in some of the cases even though there was immediate sale of the assets.

c. For those cases which fall between the dates listed and those cases in which the alternate date is not always advantageous, individual decisions must be calculated.

Summary and Recommendation

It has been suggested by numerous other authors that the selection of the alternate valuation date could be advantageous to the beneficiary of an estate which has increased in value during the six months. Although a larger estate tax will be paid, it was felt that the income tax savings, because of the stepped up basis, might offset this additional tax. Caution should be used before following this suggestion.

The results of this study indicate that the selection of the alternate date will be beneficial in many cases. In exactly which cases the alternate date should be used is significantly affected by the type of asset and the amount of the marital deduction claimed. This is reasonable because of the direct effect that these have on the dollar amount of the tax on the gain and the dollar amount of the estate tax. Therefore a more accurate decision rule will be based on these two variables.

If the appreciated assets are capital assets and no marital deduction is claimed, do not select the alternate value. If they are capital and a fifty percent marital deduction is claimed, use the alternate value if the beneficiary's tax rate is 60% or more. Do not use the alternate date if it is 20% or less. If it is 40% use

Table 7-II. If the assets are not capital assets and no marital deduction is claimed, use the alternate date if the beneficiary's tax rate is 70%. Do not use the alternate date if the tax rate is 20% or less. If the tax rate is 40%, use Table 7-III; if it is 60%, use Table 7-IV. If the assets are not capital and the marital deduction is fifty percent, use the alternate date if the beneficiary's tax rate is 40% or more. Use the date of death value if the rate is 0%. If the rate is 20%, use Table 7-V.

In all cases in which the actual transfer to the surviving spouse is greater than 50%, use the rules for a fifty percent deduction. (See Chapter 2 for a discussion of the limit on the marital deduction claimed.) If the actual transfer is between 0% and 50%, individual solutions have to be worked up considering all the variables. This can easily be done by running the modified computer program which will be written inserting the specific values for the variables. The same technique must be used for all cases which fall between the sale dates listed in the tables presented.

By using these new improved rules, the beneficiary will end up with more assets after completing all sales than by following the old rule or by simply using the date of death value.

CHAPTER 8

WAIVER OF EXECUTOR'S COMMISSION

The final rule-of-thumb that was tested related to the waiver of the executor's commission. If the executor is unrelated to the planner and is given the choice between taking a percent of the estate as a commission or bequest, he should always take the bequest. It will be advantageous because he will receive the money free of income tax. If the executor is related to the beneficiary and is entitled to a percent of the residual estate, the answer is slightly different. In this case, the executor has to choose between receiving a commission (which is taxable) and a share of the remaining estate or receiving only a share of a larger estate. It has been suggested that the executor might be better off receiving just a share of the estate even though it is smaller than the sum of the commission and the share of the residual estate he is entitled to because of the income tax savings. The rule-of-thumb that a residual beneficiary should waive his commission has been tested

to see if the waiver would be beneficial under different situations.

Law Relating to Executor's Commission

An executor's commission, like other commissions, is income taxable to the recipient. From the estate's point of view, the commission is part of the administration expenses and is, therefore, deductible either on the estate tax return or the estate's income tax return. (See Chapter 6 for a more complete discussion of the deductibility of administration expenses.)

A question arises whether an executor who, by terms of the will, is to receive a bequest instead of a commission is then considered to have received property from a decedent or taxable income. The question was answered by the Supreme Court in U.S. vs Merriam.[1] In that case, the court held that a bequest "...in lieu of all compensation or commissions to which they would otherwise be entitled as executors or trustees" was not taxable income to the beneficiaries. In an unrelated case, a court stated that an estate is not entitled to an administration expense deduction for commissions which were waived and

---

[1] Sup.Ct. 69, 4 AFTR 3673.

therefore never paid.[2]

Another question was whether the executor could unilaterally waive his commission and thereby avoid having taxable income. Revenue Ruling 56-472[3] answered the question. In the particular situation, the executor had waived his commission before performing any services. The Service held that the executor does not realize income if there is a clear and irrevocable waiver of his commission "unless he has committed an act which would imply prior acceptance or exercise of ownership, dominion or control of the amounts so waived." At the same time, the Service held that the waiver does not constitute a gift for gift tax purposes.

Somewhat later the Service ruled that an executor could not waive his commission after having performed services for several years.[4] To clarify exactly when an executor may waive his commission, Revenue Ruling 66-167 was issued.[5] It stated that the waiver need not precede all services to be effective. The important

---

[2]Mitchell vs. Westover 3 AFTR 2d 1894.

[3]1956-2 CB p. 21.

[4]Revenue Ruling 64-225, 1964-2 CB p. 15.

[5]1966-1 CB p. 20.

point is that the executor intends to render gratuitous services. Specifically, he may waive his commission in one of two ways. Either he may send a formal waiver to the principal beneficiaries within six months after his initial appointment, or he may imply it by failure to claim a deduction for the commission on the accountings that he supplies. Under the latter method, "other facts and circumstances must indicate the executor's intention." Exactly what "other facts and circumstances" are necessary was not defined.

Estate Planning

Several authors have mentioned that the executor should consider waiving his commission. One author has mentioned that if the executor is also a beneficiary, he would be waiving taxable income, and in its place receiving a larger tax free distribution.[6] He mentions that the deductibility of the commissions must be considered also.

A second author has given a more detailed list of variables to be considered.[7] It includes:

---

[6]William K. Stevens, "How Post-Mortem Estate Planning Can Reduce Income and Estate Taxes," Journal of Taxation, November 1964, p. 288.

[7]Irving Evall, "'Hidden' Estate Tax-Saving Techniques Can be Found in Interplay of Tax Law," Journal of Taxation, November 1963, p. 285.

1. The cost to the executor of the lost commissions;

2. the income tax savings if the commissions are deducted on the income tax return of the estate;

3. the estate tax savings if the commissions are deducted on that return; and

4. the income and estate tax savings if the deduction is allocated between the two tax returns of the estate.

Even this list is not complete. An important variable that has been overlooked is the executor's share in the residual estate. If the executor receives less than 100% of the residual estate, it is possible for all the beneficiaries other than the executor-beneficiary to be better off by the waiver while the executor is worse off. By including this variable, it is possible to test the decision rule to make sure that none of the beneficiaries is worse off.

This part of the study has been designed to determine if the executor would be better off to waive his commission and take under the will considering all of the above factors.

The Simulation Model

Variables

Four variables were included in the model. They were: size of the estate, income of the estate, executor's

income tax bracket, and the executor's share of the residual estate. The allocation of the administration expense deduction between the estate tax return and the estate's income tax return was not considered a variable. In each case, the deduction was allocated optimally. The optimal allocation was the one which maximized the total transfers of income and corpus after subtracting the income and estate taxes due.

Size of Estate

The size varied from $200,000 to $2,000,000 by increments of $100,000. This is the same range as has been used in all the other parts of this study.

Income of the Estate

The income ranged from $0 to $100,000 by increments of $20,000. Although this does not cover all of the possibilities, it does include most of the realistic ones and therefore would permit a valid test of the rule-of-thumb.

Executor's Income Tax Bracket

This variable ranged from 0% to 60% by increments of 20%. This is approximately the same range as the ones used in previous parts when a beneficiary's tax bracket was specified.

Executor's Share of Residual Estate

The share varied from 25% to 100% by increments of

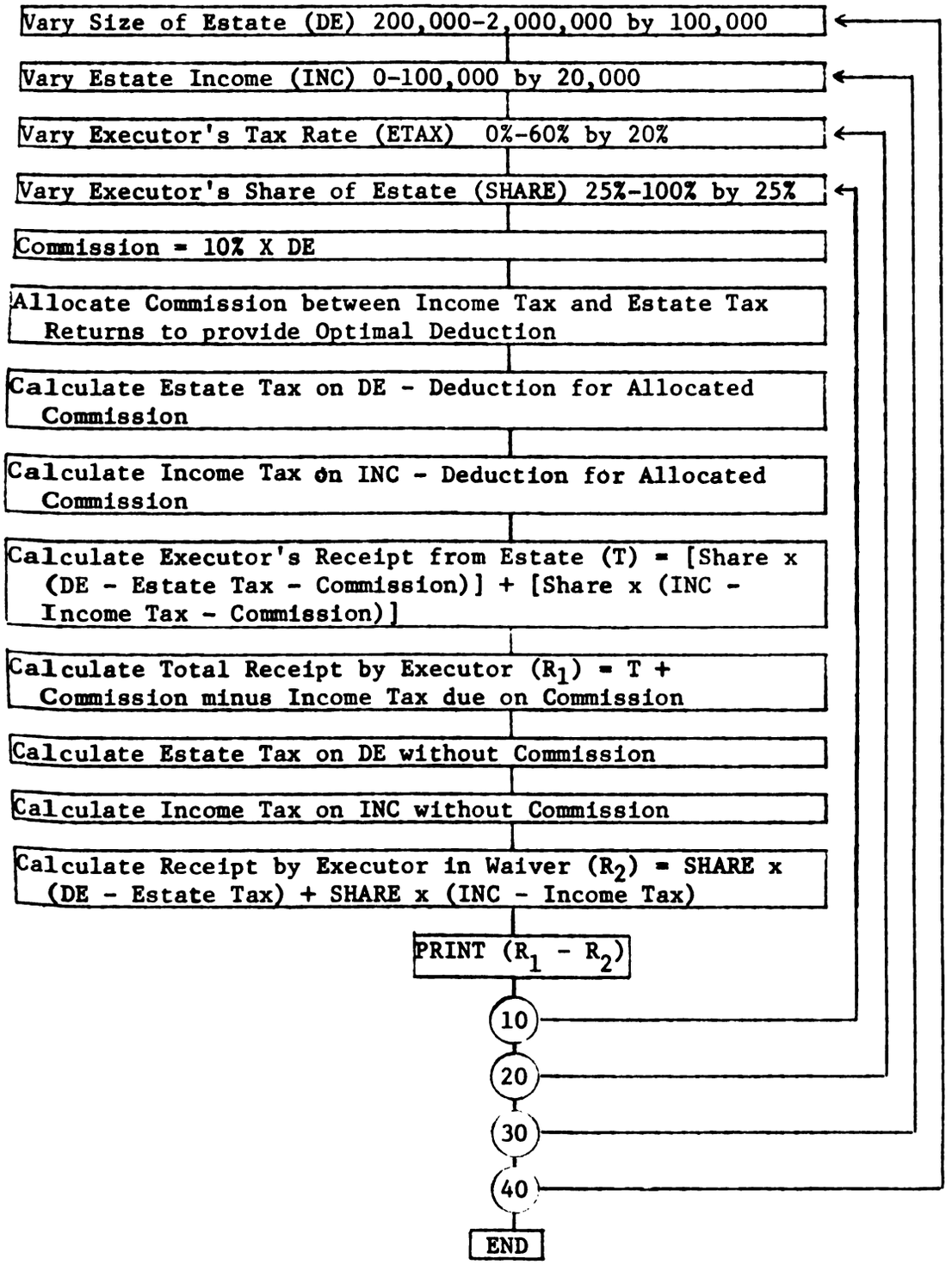
25%. It was included to determine if the executor would benefit from a waiver if he was not entitled to the full increase in the estate because of the waiver.

Methodology

Chart 8-I is a flow chart of the program written to simulate this model. The program proceeded as follows: The estate was set at $200,000. The estate income was set at $0. The executor's income tax rate was 0%. The executor's share of the residual estate was set at 25%. The dollar amount of the commission was calculated as 10% of the estate. The commission was allocated between the estate and income tax return to provide the maximum benefit. (The allocation was performed pursuant to the rules discussed in Chapter 6). The estate tax was calculated after deducting the correct percentage of the commission. The income tax was computed after deducting the remaining commission. The executor's receipt from the estate as a beneficiary was the sum of 1) the executor's share multiplied by the value of the estate minus the estate tax and commission, and 2) the executor's share multiplied by the estate's income minus the income tax and commission. To this amount was added the after tax receipt of the commission which was the commission times

CHART 8-I

FLOW CHART FOR WAIVER OF COMMISSION



one minus the executor's tax rate. The receipt by the executor if he waived his commission was then calculated. It was the sum of his share times the gross estate minus the applicable estate tax and the estate income minus the applicable income tax. The difference in the receipts was then printed. The executor's share was increased by 25% and all the calculations were redone. After his share equaled 100%, the other variables were increased in turn.

Limitations

There are two limitations on the model. The first is that the estate lasts exactly one year and one day. This limitation was to prevent any of the income from being taxed to the beneficiaries. It does not really limit the model, but eliminates the problem of specifying time and amounts of distribution and the different effective tax rates of all the beneficiaries who received these taxable distributions.

The other limitation is that no marital deduction was provided for. It is assumed that the executor is not the surviving spouse. If the executor is also entitled to a share of the spouse's estate, which is reasonable, an adjustment because of the increased marital deduction would have to be made for the additional tax due

when the spouse died. To calculate this, some of the other variables which would have to be included would be surviving spouse's estate, surviving spouse's remaining life, and rate of return. It was therefore felt that it would be better to eliminate the marital deduction.

Results

In total, 1,824 cases were generated. Table 8-I gives a breakdown of these cases by size of estate. It can be seen from Table 8-I that in 191 cases, the executor should waive his commission. Table 8-II gives a breakdown by size of estate and estate income of those 191 cases in which he should waive his commission.

It was mentioned earlier that a waiver of the commission would increase either the estate tax or the income tax or both because of the reduction in the deductible administration expenses. It would be reasonable therefore, to expect the number of cases in which the waiver was beneficial to decrease as either the size of the estate or the estate's income increased, because of the increased value of the lost deduction. A review of Table 8-II indicates that the expectation holds for amount of income but not always for size of estate. The number of cases in which the commission should be waived

TABLE 8-I

CASES REGARDING WAIVER OF COMMISSION
BREAKDOWN OF CASES BY SIZE OF ESTATE

Size of Estate	Waive Commission	Do not Waive Commission	Total
200,000	7	89	96
300,000	8	88	96
400,000	9	87	96
500,000	9	87	96
600,000	10	86	96
700,000	10	86	96
800,000	12	84	96
900,000	12	84	96
1,000,000	12	84	96
1,100,000	12	84	96
1,200,000	12	84	96
1,300,000	12	84	96
1,400,000	10	86	96
1,500,000	10	86	96
1,600,000	10	86	96
1,700,000	9	87	96
1,800,000	9	87	96
1,900,000	9	87	96
2,000,000	9	87	96
Total	191	1,633	1,824

TABLE 8-II

CASES IN WHICH COMMISSION SHOULD BE WAIVED
BREAKDOWN BY SIZE OF ESTATE AND ESTATE INCOME

Size of Estate	Income						Total
	0	20,000	40,000	60,000	80,000	100,000	
200,000	3	3	1	0	0	0	7
300,000	3	3	1	1	0	0	8
400,000	3	3	2	1	0	0	9
500,000	3	3	2	1	0	0	9
600,000	3	3	2	1	1	0	10
700,000	3	3	2	1	1	0	10
800,000	3	3	3	2	1	0	12
900,000	3	3	2	2	1	1	12
1,000,000	3	3	2	2	1	1	12
1,100,000	3	3	2	2	1	1	12
1,200,000	3	3	2	2	1	1	12
1,300,000	3	3	2	2	1	1	12
1,400,000	2	2	2	2	1	1	10
1,500,000	2	2	2	2	1	1	10
1,600,000	2	2	2	2	1	1	10
1,200,000	2	2	2	1	1	1	9
1,800,000	2	2	2	1	1	1	9
1,900,000	2	2	2	1	1	1	9
2,000,000	2	2	2	1	1	1	9
Total	50	50	37	27	15	12	191

increases through estates of $1,300,000. The explanation is that the estate's income is the more important variable because it has the higher effective tax rate.

Further analysis of the 191 cases indicates that in certain generalized situations, the executor should never waive his commission. If his income tax rate is twenty percent or less, he should always take his commission. If the executor's share of the residual estate is 50% or less, he should again take his commission. Therefore, the rule-of-thumb should state that if the executor's marginal tax rate is twenty percent or less or if his share of the residual estate is 50% or less, he should not waive his commission.

If the executor's share of the residual estate is 75%, he should take his commission when his marginal tax rate is forty percent or less. If his tax rate is sixty percent, it depends on both the size of the estate and the estate's income. To facilitate the executor's decision, Table 8-III was constructed.

If the executor is entitled to 100% of the residual estate, the decision must be based on all four variables (namely: size of estate, estate income, executor's share and executor's tax rate). Therefore, Table 8-IV was developed. Both Tables 8-III and 8-IV should permit the

TABLE 8-III

DECISION TABLE FOR WAIVER OF COMMISSION
BY ESTATE'S SIZE AND INCOME

Executor's Share 75% of Residual Estate
Executor's Tax Rate 60%

Size of Estate	Income of Estate			
	0	20,000	40,000	60,000
200,000	W	W		
300,000	W	W		
400,000	W	W	W	
500,000	W	W	W	
600,000	W	W	W	
700,000	W	W	W	
800,000	W	W	W	W
900,000	W	W	W	W
1,000,000	W	W	W	W
1,100,000	W	W	W	W
1,200,000	W	W	W	W
1,300,000	W	W	W	W
1,400,000	W	W	W	W
1,500,000	W	W	W	W
1,600,000	W	W	W	W
1,700,000	W	W	W	
1,800,000	W	W	W	
1,900,000	W	W	W	
2,000,000	W	W	W	

W - waive commission

If the estate's income is $80,000 or more, do not waive commission.

TABLE 8-IV

DECISION TABLE FOR WAIVER OF COMMISSION BY ESTATE'S SIZE, ESTATE'S INCOME AND EXECUTOR'S TAX RATE

Executor's Share 100% of Residual Estate

Size of Estate	Income of Estate Exec. Tax Rate	0		20,000		40,000		60,000		80,000		100,000	
		40	60	40	60	40	60	40	60	40	60	40	60
200,000		W	W	W	W		W		W				
300,000		W	W	W	W		W		W				
400,000		W	W	W	W		W		W				
500,000		W	W	W	W		W		W				
600,000		W	W	W	W		W		W		W		
700,000		W	W	W	W		W		W		W		
800,000		W	W	W	W	W	W		W		W		
900,000		W	W	W	W		W		W		W		W
1,000,000		W	W	W	W		W		W		W		W
1,100,000		W	W	W	W		W		W		W		W
1,200,000		W	W	W	W		W		W		W		W
1,300,000		W	W	W	W		W		W		W		W
1,400,000			W		W		W		W		W		W
1,500,000			W		W		W		W		W		W
1,600,000			W		W		W		W		W		W
1,700,000			w		W		W		W		W		W
1,800,000			W		W		W		W		W		W
1,900,000			W		W		W		W		W		W
2,000,000			W		W		W		W		W		W

W - waive commission

executor to make timely decisions.

Summary

This part of the study tested the rule-of-thumb that the executor should waive his commission and take under the will if he is entitled to part of the residual estate. The rule-of-thumb is not unqualifiedly sound.

The results indicate that if the executor's share of the residual estate is 50% or less or his tax rate is 20% or less, he should take his commission and pay the income tax on that amount. If the executor's share is 75% or 100% of the residual amount, there were cases in which he should waive his commission. Unfortunately, they do not present a simple rule-of-thumb. To facilitate the decision, the executor can refer to Tables 8-III and 8-IV which indicate whether or not to waive his commission based on the size of the estate, the estate's income and his own income tax bracket.

CHAPTER 9

SUMMARY AND CONCLUSIONS

In this study seven aspects of estate planning have been tested. Each is typically handled in terms of "rules-of-thumb." Included were:

A. Pre-death

1. Marital Deduction
2. Gifts "in Contemplation of Death"
3. Inter Vivos Trusts

B. Post-Mortem

1. First Income Tax Year of Estate
2. Deduction of Administration Expenses
3. Alternate Valuation Date
4. Waiver of Executor's Commission

A simulation model was constructed for each of the seven techniques. These models generated the data which were analyzed to determine if the general rule-of-thumb provided optimal solutions. An optimal solution was defined as the one which maximized the sum value of the transfers to be received by the surviving spouse, the

children, and other residual beneficiaries.

A.1. Marital Deduction

The general rule-of-thumb connected with the marital deduction has been to transfer exactly 50% of the estate to the surviving spouse except if the spouse's estate is large. It was found that this procedure does not give optimal results.

The model provided the data to develop new rules to replace the inaccurate one. In terms of the after-tax rates of return the new rule states:

> If the spouse's rate is less than or equal to the other beneficiaries' rates and his(her) estate is greater than or equal to the decedent's estate, no qualifying transfer should be made. For those cases in which the decedent's estate is larger, transfer between 0% and 40% if the spouse's rate is less than the other beneficiaries' rates and between 0% and 50% if the spouse's rate equals theirs. In most cases, zero will be the optimal size of the transfer. If the spouse's rate is greater than the other beneficiaries', the optimal has to be determined independently for each case.

In terms of the surviving spouse's remaining life the

rule is:

> In most cases the transfer should be zero, unless the surviving spouse outlives the decedent by more than six months. If the remaining life is sixteen years or more, transfer zero if the spouse's rate of return is less than that of the other beneficiaries and transfer 100% if the spouse's rate exceeds the other beneficiaries' rates.

The model was then used to test the cost of over- or under-qualifying when the optimal transfer was 50%. The additional tax cost in many cases turned out to be lower than the cost of transferring exactly 50%. On average, it turned out to be better to under-qualify.

In addition to testing the general rule-of-thumb, the model indicated that the credit for prior taxed transfers does not completely eliminate double taxation.

A.2. Gifts in Contemplation of Death

The general rule-of-thumb is that a gift in contemplation of death will reduce overall taxation because the dollars used to pay the gift tax are not added back into the estate. The large majority of cases verified the rule-of-thumb. The only time the gifts were disadvantageous was when the decedent's estate was relatively small

and sizeable gifts had been made in the past.

The model pointed out that the earnings of the gift and the income tax consequences of transferring taxable income were very important. In fact, these income tax consequences could more than offset the estate tax savings derived from the gifts.

One final point illustrated by the model is that the additional tax cost of a gift ruled in contemplation of death is relatively small in relation to the size of the decedent's estate. This raises the question whether the executor should incur a great deal of costs in rebutting the presumption that a gift within three years of death is in contemplation of death.

A.3. Inter Vivos Trusts

Trusts are considered important estate planning devices. They are supposed to provide both monetary and non-monetary advantages. The question which has in the past not been completely answered is whether or not inter vivos trusts are justifiable strictly on monetary grounds.

The study results in Chapter 4 support the general rule-of-thumb that trusts are beneficial in monetary terms (other considerations aside) even after subtracting the costs and fees involved. The only time trusts are

disadvantageous is when the beneficiary's income tax bracket exceeds that of the planner. In all other cases a trust will increase the total receipt by the beneficiary.

B.1. First Income Tax Year of Estates

It has been suggested that there is an advantage to selecting a short first income tax year because of the additional personal exemption and possible lower tax rates. The exact cases in which it would be beneficial have not been specified.

The simulation model indicates that there is no one simple rule that can be followed. It did, however, indicate that the emphasis has been in the wrong place. In the selection of the first tax year, the effects of the distribution of the estate's income to the beneficiary in the final year should be considered the primary determinant. This does not mean that the executor or administrator should arbitrarily select either a twelve month fiscal or calendar year. The selection of the wrong year could significantly reduce the receipts of the beneficiary. The exact solution requires an examination of the variables in the individual case.

B.2. Deduction of Administration Expenses

The general rule-of-thumb states that administration expenses should be deducted on the tax return with the highest marginal tax rate. This rule will not always provide the optimal decision.

The rule can be restated as:

> Deduct the administration expenses on the tax returns so that the effective tax rates are equal. The effective income tax rate is either the estate's marginal income tax rate or the beneficiary's marginal income tax rate depending on who reports the income. The effective estate tax rate depends on whether or not the maximum marital deduction is claimed. If the maximum is not claimed, the marginal rate is the effective rate. If it is claimed, then the effective rate equals one-half the marginal rate.

The model did not vary the estate's first income tax year. However, its inclusion would not change the result. The first tax year should be selected ignoring the administration expenses. These expenses should then be allocated based on the above rule.

B.3. Alternate Valuation Date

The general rule-of-thumb is that the selection of the alternate valuation date when the assets have increased in value will reduce overall taxation in those cases in which the reduction in the income tax on the reduced gain exceeds the increased estate tax. "Those cases" have not been specified.

The selection of the alternate date will be beneficial in many cases. The exact cases in which it should be used depends on the type of asset and the marital deduction. Therefore, the following rules have been suggested:

> If the assets are capital assets and no marital deduction is claimed, do not select the alternate value. If they are capital assets and a fifty percent marital deduction is claimed use the alternate value if the beneficiary's income tax rate is 60% or more. Do not use the alternate date if the rate is 20% or less. If the rate is 40%, Table 7-II included in Chapter 7 should be used.
>
> If the assets are not capital assets and no marital deduction is claimed, use the alternate date if the beneficiary's tax rate is 70%. Do not use the alternate value if the tax rate is 20%. If

the rate is either 40% or 60% use Tables 7-III and 7-IV. If the assets are not capital and the marital deduction is fifty percent, use the alternate date if the beneficiary's tax rate is 40% or more. Use the date of death value if the tax rate is 0%. If the rate is 20%, use Table 7-V.

B.4. Waiver of Executor's Commission

The general rule-of-thumb is that the executor should waive his commission and take under the will if he is entitled to part of the residual estate. This "rule" should not always be followed.

The model indicated that if the executor's share of the residual estate is 50% or less or his tax rate is 20% or less he should take his commission and pay the income tax on that amount. If the executor's share is 75% or 100% a simple rule-of-thumb could not be provided. Instead, Tables 8-III and 8-IV in Chapter 8 were created based on the size of the estate, the estate's income and the executor's income tax bracket which will assist him in the decision.

Overall Conclusions

This study has tested several rules-of-thumb and modified some of them. In many areas a simple rule could not be developed. For these areas, computer models have been developed which will provide exact answers for the individual cases.

These models only included the variables used in the individual parts of this study. It is hoped that in time these will be expanded to provide solutions to a greater number of cases.

For The Future

This study should not be considered to be exhaustive of the examination of and improvement potential in estate planning. Although the conclusions reached may be important, they should not be the only useful output from this study. Instead, this study should be considered the foundation upon which larger and different models should be constructed which will remove the limitations which have had to be included.

It is hoped that this study will stimulate others who are currently using computers in other areas of taxation and estate planning to do research in this area. The end product of all this research will be improved

estate planning for the public and improved competence and acceptance of the members of the different professions who work in this field.

APPENDIX A

LISTINGS OF TAX COMPUTATION SUBROUTINES

1. ESTEX - Calculation of taxable estate's and credits
2. TAXON - Calculation of estate tax
3. GFTTAX - Calculation of taxable gift
4. TONG - Calculation of gift tax
5. TOINC - Calculation of estates income tax

SUBROUTINE LISTING-ESETX

```
      SUBROUTINE ESETX
      REAL LOSS,MD
      INTEGER PRITRN,DATEPD,CONTEM
      COMMON /BLK1/GE,ADMEXP,DEBTS,LOSS,CHAR,MD,PRITRN,DATEPD,ZPTRAN,
     1PRITE,PRITAX,CONTEM,ZGIFT,ZGIFTX,ZVGIFT,EXCL,ESTAX,TAXEST
      DATA IYES /'YES'/
  999 ADJGE = GE - (ADMEXP + DEBTS + LOSS)
      TAXEST = ADJGE - (60000. + CHAR + MD)
      IF (TAXEST .LE. 0.) GO TO 31
      CREDIT = 0.
      CRGTX = 0.
      CALL TAXCN (SLOP1,TAXEST)
      IF (PRITRN  .EQ. IYES) GO TO 10
      GO TO 20
   10 IF (DATEPD .GT. 10) GO TO 20
      ACRED =1.0
      IF (DATEPD .LE. 2) GO TO 15
      DO 11 I=2, DATEPD, 2
      ACRED=ACRED - .2
   11 CONTINUE
```

SUBROUTINE LISTING-ESETX

```
15    CRED1 = ((ZPTRAN/(PRITE + 60000.))*PRITAX)*ACRED
      SLOP2A = TAXEST - ZPTRAN
      CALL TAXCN (SLOP2,SLOP2A)
      CRED2=(SLOP1-SLOP2)*ACRED
      IF (CRED1 .GT. CRED2) GO TC 16
      CREDIT = CRED1
      GO TO 20
16    CREDIT = CRED2
20    IF (CONTEM .EQ. IYES) GO TO 21
      GO TO 30
21    ZGIFT1 = ZGIFT - EXCL
      IF (ZGIFT1 .GT. ZVGIFT) GO TO 22
      SLOP3 = ZGIFT1
      GO TO 23
22    SLOP3 = ZVGIFT
23    TEMP1 = (SLOP3/(GE - (MD + CHAR)))*SLOP1
      IF (ZGIFTX .GT. TEMP1) GO TO 25
      CRGTX= ZGIFTX
      GO TO 30
25    CRGTX = TEMP1
```

SUBROUTINE LISTING-ESETX

```
      30    ESTAX = SLOP1-(CREDIT + CRGTX)
            RETURN
      31    ESTAX =0.
            RETURN
            END
```

SUBROUTINE LISTING-TAXON

```
      SUBROUTINE TAXON (TAX, TXST)
      DIMENSION UPLIM (25), BASETX (24), TXRATE (24)
      DATA UPLIM/0., 5000., 10000., 20000., 30000., 40000., 50000.,
     160000., 100000., 250000., 500000., 750000., 1000000., 1250000.,
     11500000., 2000000., 2500000., 3000000., 3500000., 4000000.,
     15000000.,6000000.,7000000.,8000000.,10000000./
      DATA BASETX/ 0., 150., 500., 1600., 3000., 4800., 7000., 9500.,
     120700., 65700., 145700., 233200., 325700., 423200., 528200.,
     1753200., 998200., 1263200., 1543200., 1838200.,2468200.,3138200.,
     13836200.,4566200./
      DATA TXRATE/.03,.07,.11,.14,.18,.22,.25,.28,.30,.32,.35,.37,.39,
     1.42,.45,.49,.53,.56,.59,.63,.67,.70,.73,.76/
      IF(TXST .GT. 10000000.) GO TO 30
      DO 10 J= 1, 25
      IF (TXST .GT. UPLIM (J)) GO TO 10
      K = J-1
      EXCESS = TXST - UPLIM (K)
      TAX = BASETX (K) + (EXCESS * TXRATE (K))
      GO TO 20
10    CONTINUE
```

SUBROUTINE LISTING-TAXON

```
   20    RETURN
   30    TAX= 6088200. + (TXST-10000000.)*.77
         RETURN
         END
```

SUBROUTINE LISTING-GFTTAX

```
      SUBROUTINE GFTTAX (TAX, AGIFT, CGIFT)
      PTAX1=0.
      PTAX2=0.
      TAX =0.
  999 AGIFT1 = AGIFT - 3000.
      SGIFT = AGIFT1 + CGIFT
      IF (CGIFT .EQ. 0.) GO TO 10
      CALL TONG (PTAX2,CGIFT)
   10 CALL TONG (PTAX1, SGIFT)
      TAX = PTAX1 - PTAX2
      RETURN
      END
```

SUBROUTINE LISTING-TONG

```
 SUBROUTINE TONG (TAX, TXGFT)
 DIMENSION UPLIM (25), BASE (24), RATE(24)
 DATA UPLIM/0., 5000. , 10000., 20000., 30000., 40000., 50000.,
160000., 100000., 250000., 500000., 750000., 1000000., 1250000.,
11500000., 2000000., 2500000., 3000000., 3500000., 4000000.,
15000000.,6000000.,7000000.,8000000.,10000000./
 DATA BASE /0., 112.50, 375., 1200., 2250., 3600., 5250., 7125.,
115525., 49275., 109275., 174900., 244275., 317400., 396150.,
1564900., 748650., 947400., 1157400., 1378650.,1851150.,2353650.,
12878650.,3426150./
 DATA RATE/.0225, .0525, .0825, .105, .135, .165, .1875, .21, .225,
1.24, .2625, .2775, .2925, .315, .3375, .3675, .3975, .42, .4425,
1.4725,.5025,.525,.5475,.57/
 IF (TXGFT .GT. 10000000.) GO TO 30
 DO 10 J = 1, 25
 IF (TXGFT .GT. UPLIM (J)) GO TO 10
 K = J-1
 EXCESS = TXGFT - UPLIM (K)
 TAX = BASE (K) + EXCESS * RATE (K)
 GO TO 20
```

SUBROUTINE LISTING-TONG

```
10      CONTINUE
20      RETURN
30      TAX= 4566150. + (TXGFT - 10000000.)* .5735
        RETURN
        END
```

SUBROUTINE LISTING-TOINC

```
      SUBROUTINE TOINC (TAX,TINC)
      DIMENSION UPLIM(25),BASE(24),RATE(24)
      DATA UPLIM/0.,500.,1000.,1500.,2000.,4000.,6000.,8000.,10000.,
     112000.,14000.,16000.,18000.,20000.,22000.,26000.,32000.,
     138000.,44000.,50000.,60000.,70000.,80000.,90000.,100000./
      DATA BASE/0.,70.,145.,225.,310.,690.,1130.,1630.,2190.,2830.,
     13550.,4330.,5170.,6070.,7030.,9030.,12210.,15510.,18990.,22590.,
     128790.,35190.,41790.,48590./
      DATA RATE/.14,.15,.16,.17,.19,.22,.25,.28,.32,.36,.39,.42,.45,.48,
     1.50,.53,.55,.58,.60,.62,.64,.66,.68,.69/
      TINC1=TINC-600.
      IF (TINC1.GT.100000.) GO TO 40
      IF (TINC1 .LE. 0.) GO TO 30
      DO 10 J=1,26
      IF (TINC1 .GT. UPLIM(J)) GO TO 10
      K=J-1
      EXCESS = TINC1-UPLIM(K)
      TAX= BASE(K) + EXCESS * RATE(K)
      GO TO 20
10    CONTINUE
```

SUBROUTINE LISTING-TOINC

```
20      RETURN
30      TAX=0.
        RETURN
40      TAX=55490.+(TINC1-100000.)*.7
        RETURN
        END
```

APPENDIX B

COMPUTER PROGRAM LISTINGS

1. Marital Deduction
2. Gifts in Contemplation of Death
3. Inter Vivos Trusts
4. First Income Tax Year
5. Deduction of Administration Expenses
6. Alternate Valuation Date
7. Waiver of Executor's Commission

PROGRAM LISTING FOR MARITAL DEDUCTION

```
      REAL LOSS,MD,MDPER,MD1
      INTEGER PRITRN,DATEPD,CONTEM
      DIMENSION T3(7)
      COMMON /BLK1/GE,ADMEXP,DEBTS,LOSS,CHAR,MD,PRITRN,DATEPD,ZPTRAN,
     1PRITE,PRITAX,CONTEM,ZGIFT,ZGIFTX,ZVGIFT,EXCL,ESTAX,TAXEST
      DATA INO/'NO'/,IYES/'YES'/
      DO 1000 IA=200000,2000000,200000
      DE=IA
      DO 990 IB=200000,2000000,200000
      SS=IB
      IC1=6
      DO 980 IC=6,36,6
      IC2=IC-IC1
      RORSS = IC2/100.
      DO 970 ID=6,36,6
      ID1=ID-IC1
      RORB=ID1/100.
      PRINT 10,IA
10    FORMAT ('0',1X,'DECEDENT ESTATE',10X,I8)
      PRINT 20,IB
```

PROGRAM LISTING FOR MARITAL DEDUCTION

```
20    FORMAT (/,1X,'SPOUSE ESTATE',10X,I8)
      PRINT 30,IC2
30    FORMAT (/,1X,'SPOUSE RATE OF RETURN',10X,I3)
      PRINT 40,IC1
40    FORMAT(/,1X,'BENEFICIARY RATE OF RETURN',10X,I3)
      PRINT 50
50    FORMAT ('0',1X,'LIFE',10X,'MARITAL DEDUCTION PERCENTAGE')
      PRINT 60
60    FORMAT (/,23X,'0',13X,'20',13X,'40',13X,'50',13X,'60',13X,'80',13X
     1,'100')
      DO 960 DATEPD=1,22,3
99999 I=0
      RORSS1=(1.+RORSS)**DATEPD
      RORB1=(1.+RORB)**DATEPD
      PRITRN=INO
      IE1=+20
      DO 950 IE=20,60,20
      IE2=IE - IF1
      GE=DE
      MDPER = IE2/100.
```

PROGRAM LISTING FOR MARITAL DEDUCTION

```
      MD=GE*MDPER
      SS1=SS+MD*RORSS1
      CALL ESETX
      T=GE-MD-ESTAX
      T1=T*RORB1
      GE=SS1
      MD=0.
      CALL ESETX
      T2=SS1-ESTAX
      I=I+1
      T3(I)=T1+T2
950   CONTINUE
      GE=DE
      MD=GE*.5
      SS1=SS+MD*RORSS1
      CALL ESETX
      T=GE-MD-ESTAX
      T1=T*RORB1
      GE=SS1
      MD=0.
```

PROGRAM LISTING FOR MARITAL DEDUCTION

```
      CALL ESETX
      T2=SS1-ESTAX
      I=I+1
      T3(I)=T1+T2
      DO 940 IF=60,100,20
      GE=DE
      PRITRN=INO
      MDPER=IF/100.
      MD1=GE*MDPER
      MD=GE*.5
      ZPTRAN=MD1-MD
      CALL ESETX
      PRITE= TAXEST
      PRITAX=ESTAX
      T=GE-MD1-ESTAX
      IF ( T .LT. 0. ) GO TO 100
      T1=T*RORB1
200   SS1=SS+MD1*RORSS1
      PRITRN=IYES
      GE=SS1
```

PROGRAM LISTING FOR MARITAL DEDUCTION

```
      MD=0.
      CALL ESETX
      T2=SS1-ESTAX
      I=I+1
      T3(I)=T1+T2
940   CONTINUE
      PRINT 70,DATEPD,(T3(J),J=1,7)
70    FORMAT (/,1X,I3,11X,(7(F13.2,2X)))
960   CONTINUE
970   CONTINUE
980   CONTINUE
990   CONTINUE
1000  CONTINUE
      GO TO 999
100   T1=0.
      MD1 = GE-ESTAX
      ZPTRAN = MD1 - MD
      GO TO 200
999   CONTINUE
      STOP
```

PROGRAM LISTING FOR GIFT IN CONTEMPLATION

```
      REAL LOSS,MD
      INTEGER PRITRN,DATEPD,CONTEM
      DIMENSION SAVING  (3)
      COMMON /BLK1/GE,ADMEXP,DEBTS,LOSS,CHAR,MD,PRITRN,DATEPD,ZPTRAN,
     1PRITE,PRITAX,CONTEM,ZGIFT,ZGIFTX,ZVGIFT,EXCL,ESTAX
      DATA INO /'NO'/
      DATA IYES /'YES'/
      DATA ROR/.06/
      DATA ROR1/.06/
      IA = 1
10    IF (IA .EQ. 1) GO TO 30
      IF (IA .EQ. 2) GO TO 20
      ROR1= ROR1* .6
      GO TO 30
20    ROR1= ROR1* 1.25
30    DE = 100000.
      DO 1000 IB = 1,19
      DE = DE + 100000.
      CGIFT = -50000.
      DO 900 IC = 1, 11
```

PROGRAM LISTING FOR GIFT IN CONTEMPLATION

```
      CGIFT = CGIFT + 50000.
      IF (DE .LT. 700000) GO TO 40
      ALIM = 500000.
      GO TO 45
40    ALIM = DE * .8
45    PRINT 50, IA
50    FORMAT ('1', 20X, 'RUN NUMBER', 1X, I2)
      PRINT 60, DE
60    FORMAT (' ',20X, 'DECEDENT ESTATE',1X,F9.0)
      PRINT 70, CGIFT
70    FORMAT (' ',20X, 'CUMULATIVE GIFTS', 1X, F9.0)
      PRINT 80
80    FORMAT('0','GIFT',30X,'1 YEAR',19X,'2 YEARS',19X,'3 YEARS',19X,
     1'SAVING')
      ZGIFT = 0.
      ID = ALIM/50000.
      DO 90 IE = 1, ID
      ZGIFT = ZGIFT + 50000.
      ZVGIFT = ZGIFT
      DO 100 ILIFE = 1,3
```

100

150

110

90

PROGRAM LISTING FOR GIFT IN CONTEMPLATION

```
      CALL  GFTTAX (ZGIFTX, ZGIFT, CGIFT)
      DE1 = DE - ZGIFT - ZGIFTX
      IF ( DE1 .LT. 0. ) GO TO 90
      GE=DE1+((ZGIFT+ZGIFTX)*(1.+ROR1)**ILIFE)
      CONTEM=INO
      CALL ESETX
      A=GE-ESTAX
      GE=DE-ZGIFTX
      CONTEM=IYES
      CALL ESETX
      B=DE1-ESTAX+(ZGIFT*(1.+ROR)**ILIFE)
      SAVING(ILIFE)=B-A
      IF (SAVING(ILIFE) .LE. 0.) JS=1
100   CONTINUE
      IF (JS .EQ. 1) GO TO 200
150   JS=0
      PRINT 110,ZGIFT,(SAVING(IF),IF=1,3),SAV
110   FORMAT('0',F9.0,15X,(3(F18.2,10X)),F18.2)
      SAV=0.
90    CONTINUE
```

```
      PROGRAM
C -
  900 CONTINUE
 1000 CONTINUE
      IA = IA +
      IF (IA .LT
      GO TO 999
  200 GE=DEL
      CONTEM=I
      CALL FSE
      C=DEL-E
      GE=DEL+
      CALL ES
      D=GE-F
      SAV=C-
      GOTO 1
 9999 CONTI
      STOP
      END
```

PROGRAM LISTING FOR GIFT IN CONTEMPLATION

```
 900   CONTINUE
 1000  CONTINUE
       IA = IA + 1
       IF (IA .LT. 4) GO TO 10
       GO TO 9999
 200   GE=DE1
       CONTEM=INO
       CALL ESETX
       C=DE1-ESTAX+(ZGIFT*(1.+ROR)**4)
       GE=DE1+((ZGIFT+ZGIFTX)*(1.+ROR1)**4)
       CALL ESETX
       D=GE-ESTAX
       SAV=C-D
       GOTO 150
 9999  CONTINUE
       STOP
       END
```

PROGRAM LISTING FOR GIFT TO TRUST

```
      REAL LOSS,MD
      INTEGER PRITRN,DATEPD,CONTEM
      DIMENSION SAVING (5)
      COMMON /BLK1/GE,ADMEXP,DEBTS,LOSS,CHAR,MD,PRITRN,DATEPD,ZPTRAN,
     1PRITE,PRITAX,CONTEM,ZGIFT,ZGIFTX,ZVGIFT,EXCL,ESTAX
      DATA INO /'NO'/
      DATA IYES /'YES'/
      ROR=.05
      DO   10  IA=200000,2000000,200000
      DE=IA
      JA=100000
      DO 20  IB= 100000,600000,100000
      CGIFT=IB - JA
      IF (DE .LT. 800000) GO TO 30
      LIM=500000
      GO TO 50
30    LIM= .8*DE
50    DO 60 IC=50000,LIM,50000
      ZGIFT=IC
      PRINT 70, DE
```

PROGRAM LISTING FOR GIFT TO TRUST

```
 70    FORMAT ('1', 20X, 'DECEDENT ESTATE', 2X, F9.0)
       PRINT 80, CGIFT
 80    FORMAT ('0',20X, 'CUMULATIVE GIFTS', 2X, F9.0)
       PRINT 200, ZGIFT
200     FORMAT('0',20X,'GIFT TO TRUST',2X,F9.0)
       PRINT 130
130    FORMAT ('0',1X,'DEC. TAX RATE',5X,'BEN.TAX RATE',20X, 'LIFE'/50X,
      1'4',14X,'8',13X,'12',15X,'16' ,14X,'20')
       JB=20
999    DO 100 ID=20,80,20
       A=0.
       DTAX=(ID-JB)/100.
       DO 110  IE=20,80,20
       A=A+1.
       BTAX= (IE-JB) /100.
       IG = 0
       DO 120 LIFED = 4,20,4
       DROR=ROR * (1.-DTAX)
       DE1= DE*((1.+DROR)**LIFED)
       GE=DE1*.9
```

```
      PROGRAM L
C
      CALL ESETX
      ZBEN1=GE-
      TRUST1=ZG
      TDIST1=.
      TDIST2=T
      RORB=RCP
      ZBENA =
      CALL GF
      DE2=DE-
      IF (DE2
      DE3= DE
      GE=.9 *
      CALL ES
      ZBENB=
      IG = IG
      SAVING
  120 CONTINU
      IF(A .G
      PRINT 1
  140 FORMAT (
```

PROGRAM LISTING FOR GIFT TO TRUST

```
      CALL ESETX
      ZBEN1=GE-ESTAX
      TRUST1=ZGIFT - 1000.
      TDIST1=.95* (TRUST1*ROR)
      TDIST2=TDIST1*(1.-BTAX)
      RORB=ROR * (1.-BTAX)
      ZBENA = TDIST2*((((1.+RORB)**LIFED)-1.)/RORB)
      CALL GFTTAX (ZGIFTX, TRUST1,CGIFT)
      DE2=DE-ZGIFT-ZGIFTX
      IF (DE2.LT. 0.) GO TO 20
      DE3= DE2* ((1+DROR)**LIFED)
      GE=.9 * DE3
      CALL ESETX
      ZBENB= GE-ESTAX
      IG = IG + 1
      SAVING (IG)=ZBENA+ZBENB+TRUST1-ZBEN1
120   CONTINUE
      IF(A .GT. 1.) GO TO 150
      PRINT 140, DTAX,BTAX, (SAVING (II), II=1,5)
140   FORMAT ('0',11X,F3.2,16X,F3.2,5X, (5(F15.2,1X)))
```

PROGRAM LISTING FOR GIFT TO TRUST

```
      GO TO 110
150   PRINT 101, BTAX, (SAVING (II),II=1,5)
101   FORMAT('0',30X,F3.2,5X, (5(F15.2,1X)))
110   CONTINUE
100   CONTINUE
 60   CONTINUE
 20   CONTINUE
 10   CONTINUE
      STOP
      END
```

PROGRAM LISTING FOR TAX YEAR

```
      DIMENSION DIST (12,9)
      DATA DIST/108*0./
      DO 10 I=10000,100000,10000
      EINC=I
      DO 20 IA=10000,100000,10000
      EEXP=IA
      DO 30 IB=20,80,20
      BTAX=(IB-20)/100.
      PRINT 40,EINC
40    FORMAT ('1',30X,'ESTATE INCOME',1X,F8.0)
      PRINT 50,EEXP
50    FORMAT ('0',30X,'ESTATE EXPENSES',1X,F8.0)
      PRINT 60,IC
60    FORMAT ('0',30X,'BENEFICIARY INC TAX RATE',1X,I4,1X,'%')
      ELIFE= 14.
      CALL TAXYR (DIST,EINC,EEXP,BTAX,ELIFE)
      PRINT 70
70    FORMAT (' ','LIFE OF',3X,'LENGTH OF',23X,'PATTERN OF RECEIPTS/
     1EXPENSES'/2X,'ESTATE',3X,'FIRST YEAR', 6X,'SL/SL',6X,'SL/DEC',6X,
     1'SL/ACC',5X,'ACC/SL',4X,'ACC/DEC',4X,'ACC/ACC',5X,'DEC/SL',4X,
```

PROGRAM LISTING FOR TAX YEAR

```
     1'DEC/DEC',4X,'DEC/ACC')
      PRINT 80,ELIFE,(DIST(1,IZ),IZ=1,9)
80    FORMAT ('0',4X,F3.0,7X,'1',7X,9(F10.2,1X))
      DO 90 J=2,12
      PRINT 100,J,(DIST(J,IY),IY=1,9)
100   FORMAT ('0',13X,I2,7X,9(F10.2,1X))
90    CONTINUE
      ELIFE=18
      CALL TAXYR (DIST,EINC,EEXP,BTAX,ELIFE)
      PRINT 200, ELIFE,(DIST(1,IZ),IZ=1,9)
200   FORMAT('0',//,5X,F3.0,7X,'1',7X,9(F10.2,1X))
      DO 110 J=2,12
      PRINT 100,J,(DIST(J,IY),IY=1,9)
110   CONTINUE
      ELIFE=24
      CALL TAXYR(DIST,EINC,EEXP,BTAX,ELIFE)
      PRINT 300,ELIFE,(DIST(1,IZ),IZ=1,9)
300   FORMAT('1',4X,F3.0,7X,'1',7X,9(F10.2,1X))
      DO 120 J=2,12
      PRINT 100,J,(DIST(J,IY),IY=1,9)
```

PROGRAM LISTING FOR TAX YEAR

```
120   CONTINUE
 30   CONTINUE
 20   CONTINUE
 10   CONTINUE
      STOP
      END
      SUBROUTINE TAXYR(DIST,EINC,EEXP,BTAX,ELIFE)
      DIMENSION DIST(12,9),EMINC(24),EMEXP(24),EMINCA(24)
      ISLOP9=0.
      SOM=0.
      ILIFE=ELIFE
      DO 10 I=1,3
      IF (I.GT.1) GO TO 40
      DO 20 IA =1,ILIFE
      EMINC(IA)=EINC/ELIFE
 20   CONTINUE
      GO TO 100
 40   SOM=(((ELIFE+1.)*ELIFE)/2.)
      IF (I.GT.2) GO TO 80
      ELIFE1=ELIFE
```

PROGRAM LISTING FOR TAX YEAR

```
      DO 60 IC=1,ILIFE
      EMINC(IC)=EINC*(ELIFE1/SOM)
      ELIFE1=ELIFE1-1.
   60 CONTINUE
      GO TO 100
   80 DO 90 ID=1,ILIFE
      EMINC(ID)=EINC*(ID/SOM)
   90  CONTINUE
  100 DO 30 IE=1,3
      IF (IE.GT.1) GO TO 120
      DO 110  IG=1,ILIFE
      EMEXP(IG)=(EEXP/ELIFE)
  110 CONTINUE
      GO TO 200
  120 ILIFE2=ELIFE-1
      IF (IE.GT. 2) GO TO 140
      EMEXP(ILIFE)=.25*EEXP
      REXP=EEXP-EMEXP(ILIFE)
      DO 130 IH=1,ILIFE2
      EMEXP(IH)=REXP/ILIFE2
```

PROGRAM LISTING FOR TAX YEAR

```
 130   CONTINUE
       GO TO 200
 140   EMEXP(1)=.25*EEXP
       REXP=EEXP-EMEXP(1)
       DO 150 II=2,ILIFE
       EMEXP(II)=REXP/ILIFE2
 150   CONTINUE
 200    CONTINUE
       ISLOP9=ISLOP9+1
       DO 201 ITYR=1,12
       TINC=0.
       DO 210 IJ=1,ITYR
       TINC=TINC+EMINC(IJ)-EMEXP(IJ)
       EMINCA(IJ)=EMINC(IJ)
 210   CONTINUE
       CALL TOINC(TAX,TINC)
       DIST(ITYR,ISLOP9)=TAX
       TINC=0.
       ELIFE4=ELIFE-ITYR
       IK = ITYR + 1
```

PROGRAM LISTING FOR TAX YEAR

```
      RE = TAX  * .005
      DO 900 IAZ=IK,ILIFE
      EMINCA(IAZ)=EMINC(IAZ) - RE
      IF (EMINCA(IAZ) .LT. 0.) EMINCA(IAZ) = 0.
  900 CONTINUE
      IF (ELIFE4.GT.12) GO TO 230
      Y1=0.
      IK1=0
      GO TO 250
  230 IK=ITYR+1
      IK1=IK+11
      DO 240 IL=IK,IK1
      TINC=TINC + EMINCA(IL) - EMEXP(IL)
  240 CONTINUE
      Y1=12
      IF(IK1.EQ.ILIFE) GO TO 270
      CALL TOINC (TAX,TINC)
      DIST (ITYR,ISLOP9)=DIST(ITYR,ISLOP9)+TAX
      IM = IK1 + 1
      RE = TAX * .005
```

PROGRAM LISTING FOR TAX YEAR

```
      DO 901 IAX=IM,ILIFE
      EMINCA(IAX)=EMINCA(IAX) - RE
      IF (EMINCA(IAX) .LT. 0.) EMINCA(IAX) = 0.
  901 CONTINUE
  250 IM=IK1+1
      TINC=0.
      IF (IK1 .EQ.0) IM=ITYR+1
      DO 260 IN=IM,ILIFE
      TINC=TINC + EMINCA(IN) - EMEXP(IN)
  260 CONTINUE
  270 CONTINUE
      TAX=TINC*BTAX
      DIST(ITYR,ISLOP9)=DIST(ITYR,ISLOP9)+TAX
      REV = 0.
      DO 902 IBM=1,ILIFE
      REV = EMINCA(IBM) + REV
  902 CONTINUE
      DIST(ITYR,ISLOP9)=REV - EEXP - DIST(ITYR,ISLOP9)
  350 CONTINUE
  201 CONTINUE
```

PROGRAM LISTING FOR TAX YEAR

```
 30     CONTINUE
 10     CONTINUE
        RETURN
        END
```

PROGRAM LISTING FOR ALTERNATE EXPENSE

```
      REAL LOSS,MD
      INTEGER PRITRN,DATEPD,CONTEM
      DIMENSION R(11)
      COMMON /BLK1/GE,ADMEXP,DEBTS,LOSS,CHAR,MD,PRITRN,DATEPD,ZPTRAN,
     1PRITE,PRITAX,CONTEM,ZGIFT,ZGIFTX,ZVGIFT,EXCL,ESTAX,TAXEST
      DO 10 I=200000,2000000,200000
      GE=I
      DO 20 IA=10000,390000,20000
      PRINT 100,I,IA
100   FORMAT('1',20X,'RUN 1',//,21X,'ESTATE VALUE',1X,I9,//,21X,'ESTATE
     1REVENUE',1X,I8,//,'EXPENSES',20X,'PERCENT DEDUCTED FROM INCOME',/,
     117X,'0',11X,'10',8X,'20',9X,'30',10X,'40',8X,'50',9X,'60',9X,'70',
     19X,'80',9X,'90',9X,'100')
9999  EINC=IA
      ILIM=.25*GE
      DO 30 IB=10000,ILIM,20000
      EEXP=IB
      IC=10
      II=0
      DO 50 ID=10,110,10
```

PROGRAM LISTING FOR ALTERNATE EXPENSE

```
      II=II+1
       A=(ID-IC)/100.
      EXP=A*EEXP
      ADMEXP=EEXP-EXP
      MD=.5*(GE-ADMEXP)
      CALL ESETX
      B=GE-ADMEXP-ESTAX
      TINC=EINC-EXP
      CALL TCINC (TAX,TINC)
      C=TINC-TAX
      R(II)=B+C
   50 CONTINUE
      PRINT 200,EEXP,(R(J),J=1,11)
  200 FORMAT ('0',12(F10.0,1X))
   30  CONTINUE
   20 CONTINUE
   10 CONTINUE
      STOP
      END
```

PROGRAM LISTING FOR ALTERNATE VALUE

```
      REAL LOSS,MD
      INTEGER PRITRN,DATEPD,CONTEM
      DIMENSION C(5)
      COMMON /BLK1/GE,ADMEXP,DEBTS,LOSS,CHAR,MD,PRITRN,DATEPD,ZPTRAN,
     1PRITE,PRITAX,CONTEM,ZGIFT,ZGIFTX,ZVGIFT,EXCL,ESTAX,TAXEST
      DATA INO /'NO'/
      DATA IYES /'YES'/
      DATA R/.025/
      DO 10 I=200000,2000000,100000
      DE=I
      INC=DE*.1
      IDE1=DE+INC
      IDE2=DE*2
      DO 20 IA=IDE1,IDE2,INC
      DE3=IA
      PRINT 30 ,DE,DE3
30    FORMAT('1',20X,'RUN NUMBER 1'/21X,'ESTATE VALUE AT DEATH',1X,F10.2
     1/21X,'ALTERNATE VALUE',1X,F10.2)
      PRINT 40
40    FORMAT('0',1X,'SALE DATE',30X,'INCOME TAX RATE'/25X,'0',20X,'20',
```

PROGRAM LISTING FOR ALTERNATE VALUE

```
     118X,'40',17X,'60',20X,'70')
      IC1=6
      DO 70 IC=6,126,6
      DSALE=IC-IC1
      IG=0
      IB1=10
      DO 50 IB=10,80,10
      IF(IB.EQ.10.OR.IB.EQ.30.OR.IB.EQ.50.OR.IB.EQ.70.OR.IB.EQ.80) GO
     1TO 60
      GO TO 50
60    BTAX=(IB-IB1)/100.
      GE=DE3
      MD=.5 * GE
      CALL ESETX
      ES1=DE3-ESTAX
      IIA = DSALE/6.
      EARN = (ES1*(1.+R)**IIA)-ES1
      EARN1=EARN*(1.-BTAX)
      A=ES1+EARN1
      GE=DE
```

PROGRAM LISTING FOR ALTERNATE VALUE

```
      MD=.5 * GE
      CALL ESETX
      ES2=DE3-ESTAX
      EARN = (ES2*(1.+R)**IIA)-ES2
      EARN2=EARN*(1.-BTAX)
      EINC3=DE3-DE
      IF(BTAX.LT..50) GO TO 80
      GO TO 90
 80   TAX=EINC3*(BTAX/2.)
      GO TO 150
 90   IF(EINC3.LT.50000.) GO TO 100
      GO TO 110
100   TAX=EINC3*.25
      GO TO 150
110   TAX=(EINC3-50000.)*(BTAX/2.)+12500.
150   CONTINUE
      B=EARN2+ES2-TAX
      IG=IG+1
      C(IG)=A-B
 50   CONTINUE
```

PROGRAM LISTING FOR ALTERNATE VALUE

```
      PRINT 160,DSALE,(C(IX),IX=1,5)
160   FORMAT('0',F5.0,15X,(5(F11.2,10X)))
70    CONTINUE
20    CONTINUE
10    CONTINUE
      STOP
      END
```

PROGRAM LISTING FOR WAIVER OF COMMISSION

```
      REAL LOSS,MD
      INTEGER PRITRN,DATEPD,CONTEM
      DIMENSION G(4)
      COMMON /BLK1/GE,ADMEXP,DEBTS,LOSS,CHAR,MD,PRITRN,DATEPD,ZPTRAN,
     1PRITE,PRITAX,CONTEM,ZGIFT,ZGIFTX,ZVGIFT,EXCL,ESTAX,TAXEST
      DO 10  I=200000,2000000,100000
1     DE=I
      IA=20000
      DO 20  IB=20000,120000,20000
      EINC=IB-IA
      PRINT 30, DE,EINC
30    FORMAT('1',20X,'ESTATE VALUE',1X,F11.2//21X,'ESTATE INCOME',1X,
     1F11.2//1X,'EXEC. TAX %',30X,'EXEC. SHARE'/30X,'25',12X,'50',12X,
     1'75',12X,'100')
      ID=20
      DO 40  IC=20,80,20
      IE=IC-ID
      ETAX=IE/100.
      IZ=0
      DO 50  IG=25,100,25
```

PROGRAM LISTING FOR WAIVER OF COMMISSION

```
      IZ=IZ+1
      SHARE=IG/100.
      EEXP=DE*.1
      CALL TXYR (DE,EINC,EEXP,R)
      A=R*SHARE
      B=EEXP*(1.-ETAX)
      C=A+B
      GE=DE
      ADMEXP=0.
      CALL ESETX
      D=DE-ESTAX
      CALL TOINC(TAX,EINC)
      E=D+EINC-TAX
      F=E*SHARE
      G(IZ)=F-C
50    CONTINUE
      PRINT 100, IE,(G(J),J=1,4)
100   FORMAT('0',3X,I4,18X,4(F10.2,4X))
40    CONTINUE
20    CONTINUE
```

PROGRAM LISTING FOR WAIVER OF COMMISSION

```
10    CONTINUE
      STOP
      END
      SUBROUTINE TXYR (DE,EINC,EEXP,R)
      REAL LOSS,MD
      INTEGER PRITRN,DATEPD,CONTEM
      COMMON /BLK1/GE,ADMEXP,DEBTS,LOSS,CHAR,MD,PRITRN,DATEPD,ZPTRAN,
     1PRITE,PRITAX,CONTEM,ZGIFT,ZGIFTX,ZVGIFT,EXCL,ESTAX,TAXEST
      GE=DE
      EXP=0.
      ADMEXP=EEXP
      CALL ESETX
      B=GE-ADMEXP-ESTAX
      TINC=EINC-EXP
      CALL TOINC(TAX,TINC)
      C=TINC-TAX
      R=B+C
      DO 10  IA=10,100,10
      A=IA/100.
      EXP=EEXP*A
```

PROGRAM LISTING FOR WAIVER OF COMMISSION

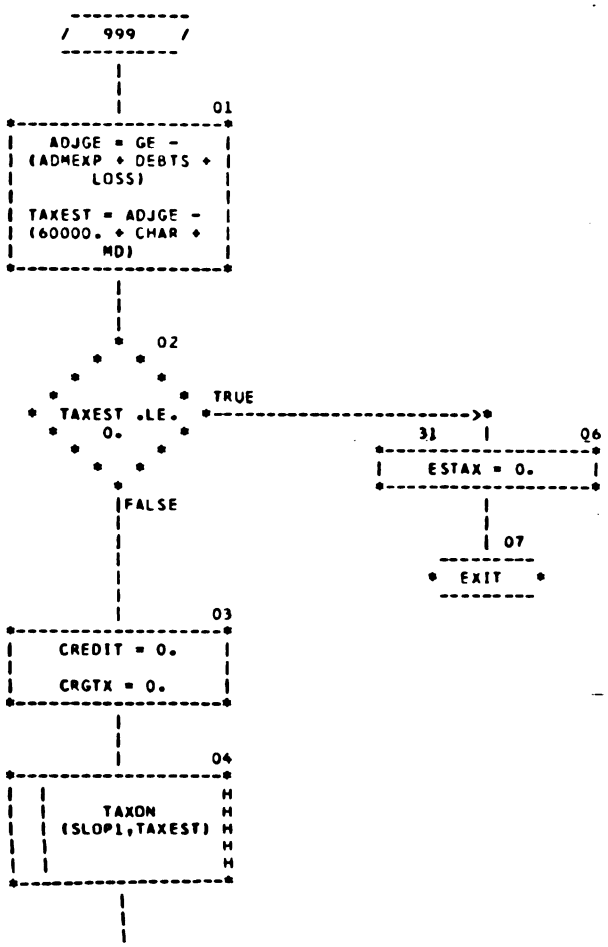
```
      ADMEXP=EEXP-EXP
      CALL ESETX
      BB=GE-ADMEXP-ESTAX
      TINC=EINC-EXP
      CALL TOINC (TAX,TINC)
      CC=TINC-TAX
      RR=BB+CC
      IF (R.GT.RR) GO TO 20
      R=RR
10    CONTINUE
20    RETURN
      END
```

APPENDIX C

FLOW CHARTS FOR TAX COMPUTATION SUBROUTINES

1. ESTEX
2. TAXON
3. GFTTAX
4. TONG
5. TOINC

CHART TITLE - SUBROUTINE ESETX



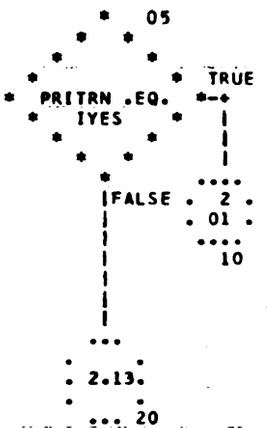
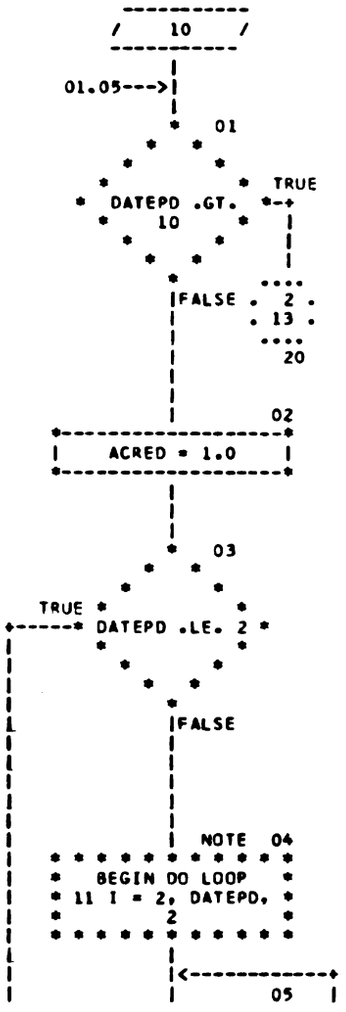

05
PRITRN .EQ.
IYES
TRUE
FALSE
2
01
10
2.13.
20

CHART TITLE - SUBROUTINE ESETX



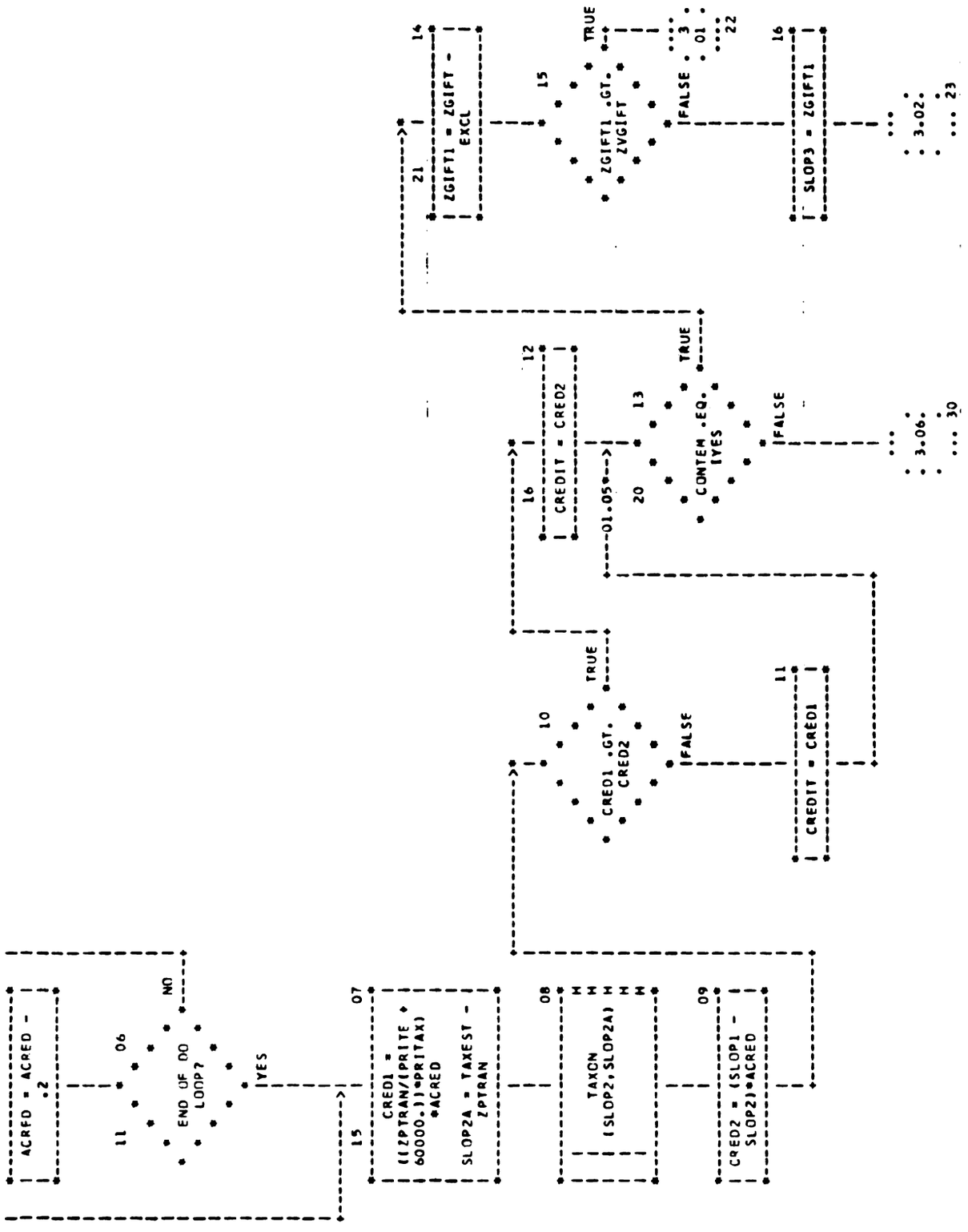

ACRED = ACRED - .2
END OF DO LOOP?
NO
YES
CRED1 = ((ZPTRAN/(PRITE + 60000.))*PRITAX) *ACRED
SLOP2A = TAXEST - ZPTRAN
TAXON (SLOP2,SLOP2A)
CRED2 = (SLOP1 - SLOP2)*ACRED
CRED1 .GT. CRED2
TRUE
FALSE
CREDIT = CRED1
CREDIT = CRED2
01.05
CONTEM .EQ. 1YES
ZGIFT1 = ZGIFT - EXCL
ZGIFT1 .GT. ZVGIFT
SLOP3 = ZGIFT1
3.06
3.02
01
22
23
30

CHART TITLE - SUBROUTINE ESETX

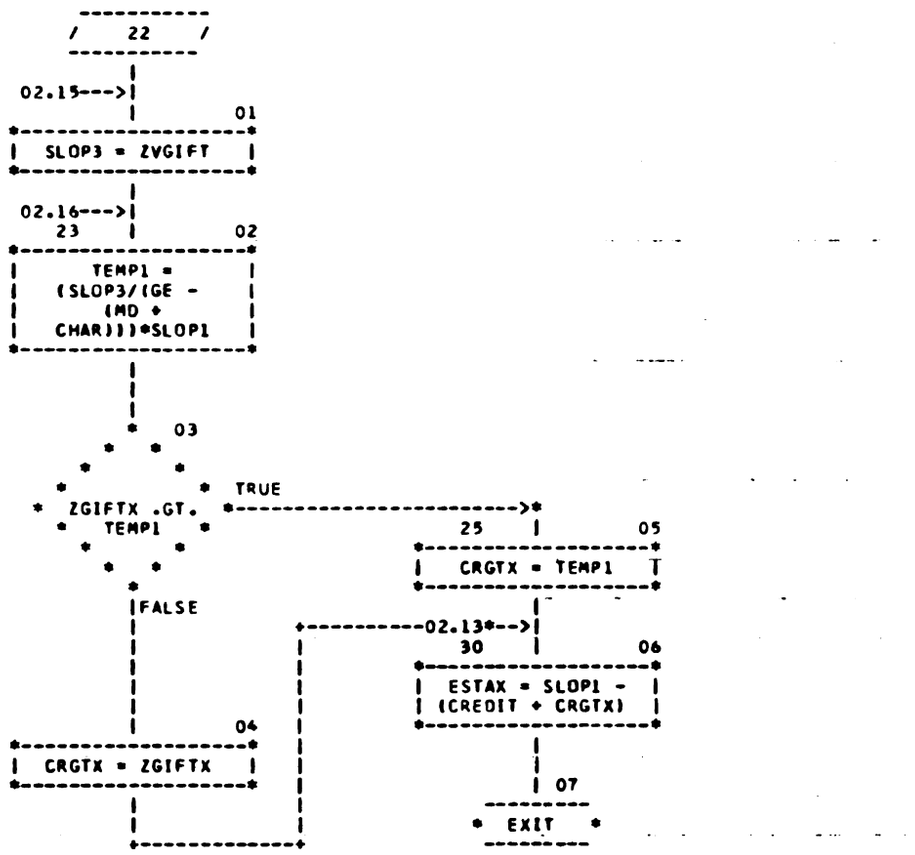
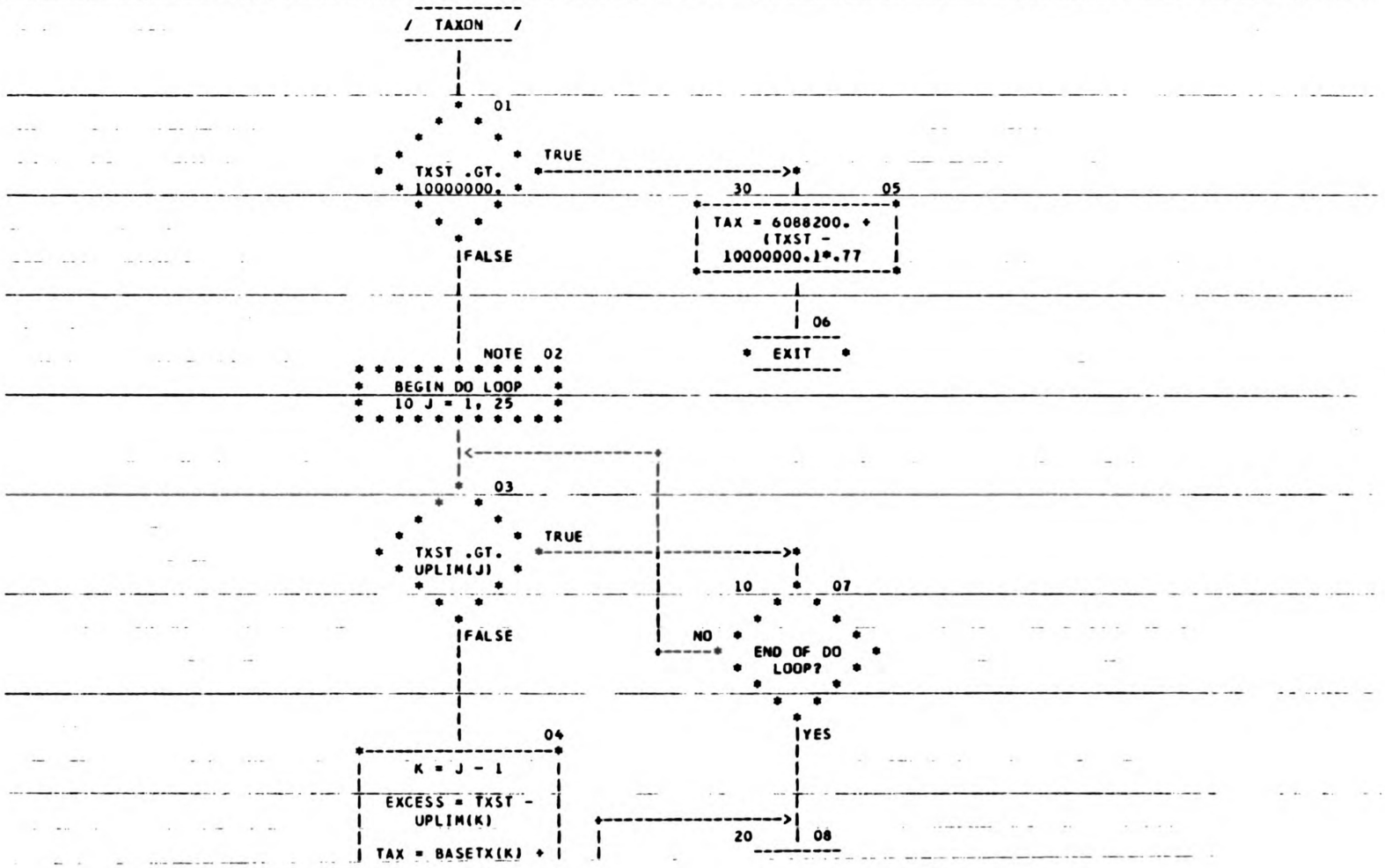


CHART TITLE - SUBROUTINE TAXON(TAX,TXST)



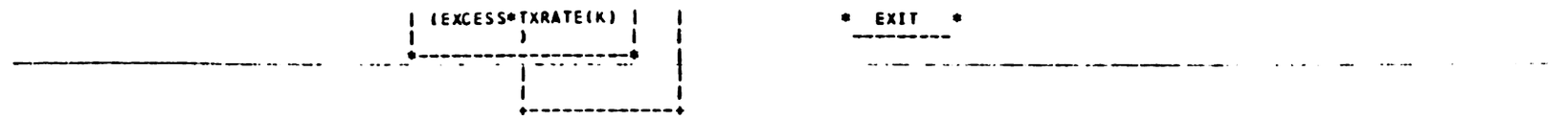
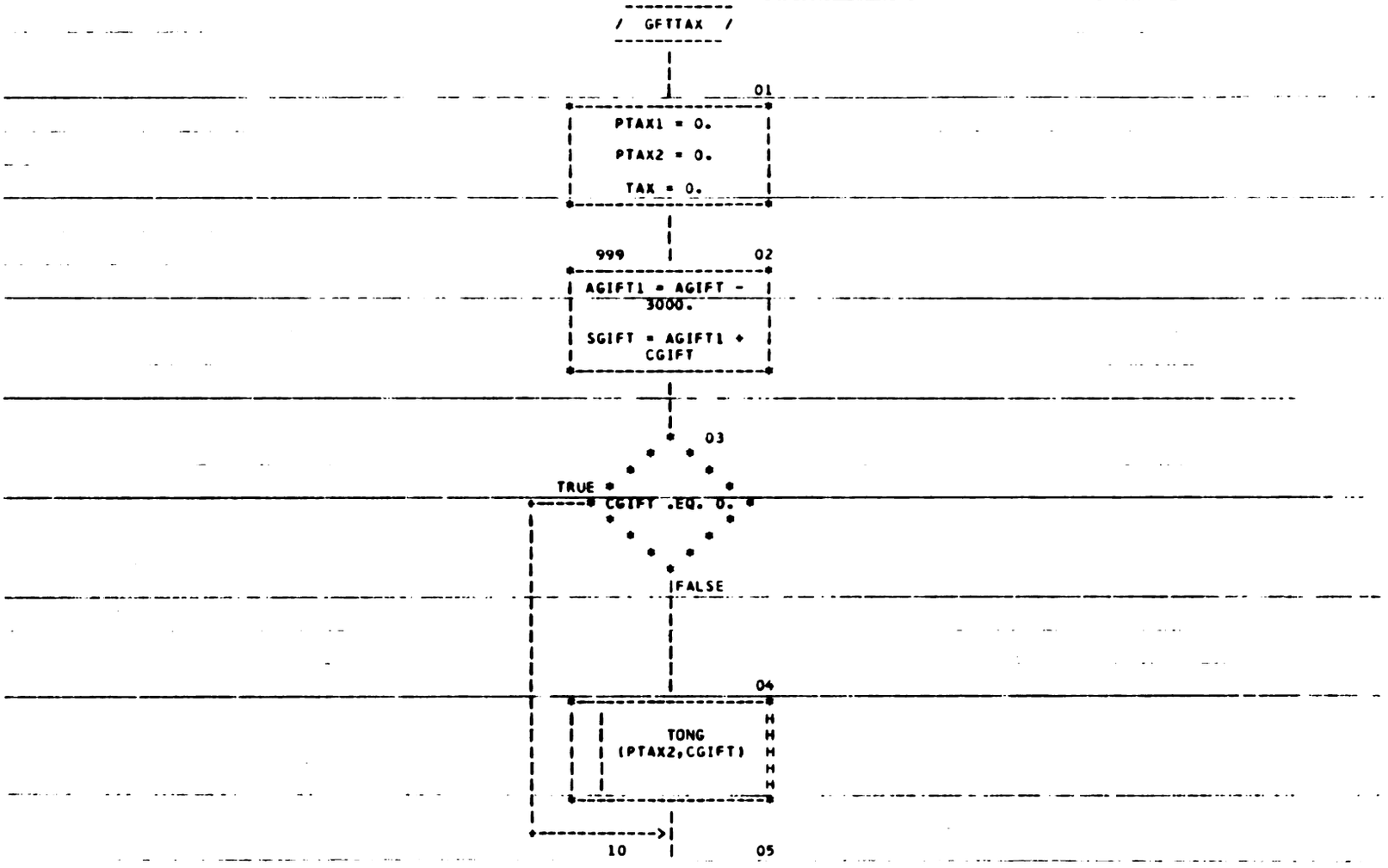

(EXCESS*TXRATE(K)
)
* EXIT *

CHART TITLE - NON-PROCEDURAL STATEMENTS

```
      DIMENSION UPLIM (25), BASETX (24), TXRATE (24)
      DATA UPLIM/0., 5000., 10000., 20000., 30000., 40000., 50000.,
     60000., 100000., 250000., 500000., 750000., 1000000., 1250000.,
     1500000., 2000000., 2500000., 3000000., 3500000., 4000000.,
     5000000.,6000000.,7000000.,8000000.,10000000./
      DATA BASETX/ 0., 150., 500., 1600., 3000., 4800., 7000., 9500.,
     20700., 65700., 145700., 233200., 325700., 423200., 528200.,
     753200., 998200., 1263200., 1543200., 1838200.,2468200.,3138200.,
     3838200.,4568200./
      DATA TXRATE/.03,.07,.11,.14,.18,.22,.25,.28,.30,.32,.35,.37,.39,
     .42,.45,.49,.53,.56,.59,.63,.67,.70,.73,.76/
```

CHART TITLE - SUBROUTINE GFTTAX(TAX,AGIFT,CGIFT)



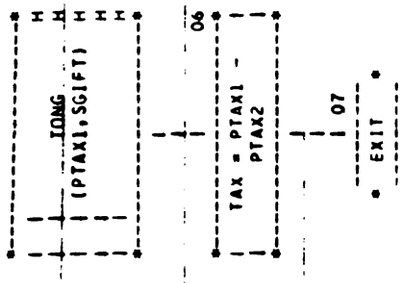
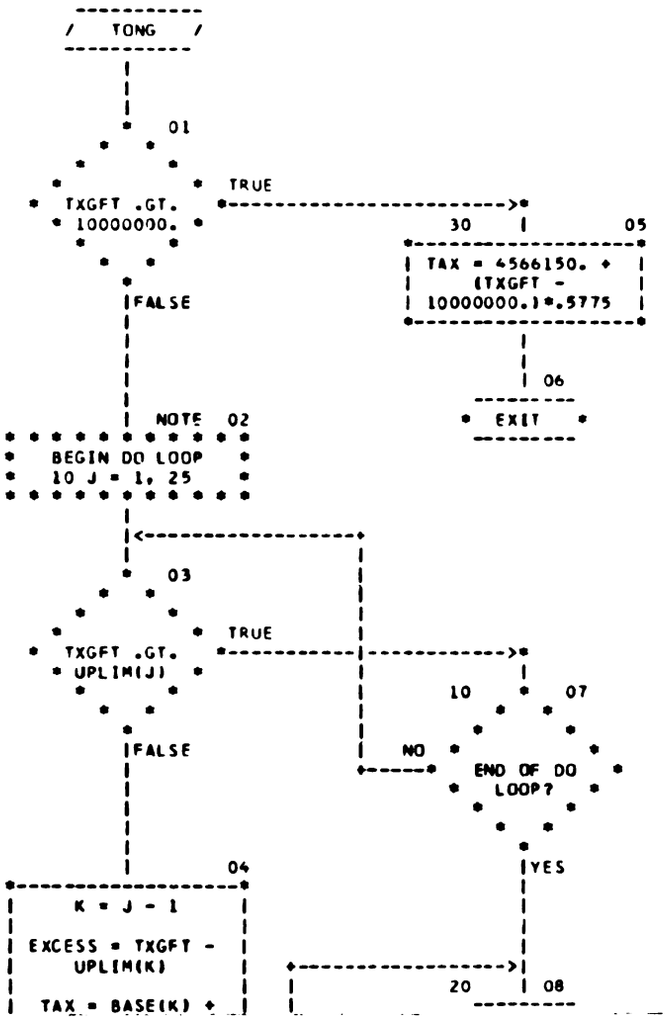

LONG
(PTAX1,SGIFT)
06
TAX = PTAX1 -
PTAX2
07
EXIT

CHART TITLE - SUBROUTINE TONG(TAX,TXGFT)

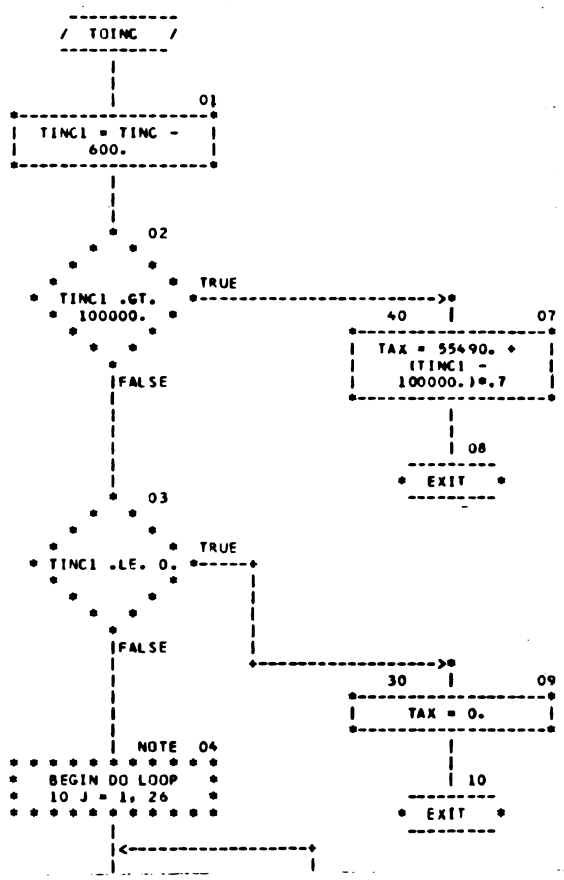



EXCESS*RATE(K)
EXIT

CHART TITLE - NON-PROCEDURAL STATEMENTS

```
DIMENSION UPLIM (25), BASE (24), RATE(24)
DATA UPLIM/0., 5000. , 10000., 20000., 30000., 40000., 50000.,
60000., 100000., 250000., 500000., 750000., 1000000., 1250000.,
1500000., 2000000., 2500000., 3000000., 3500000., 4000000.,
5000000.,6000000.,7000000.,8000000.,10000000./
DATA BASE /0., 112.50, 375., 1200., 2250., 3600., 5250., 7125.,
15525., 49275., 109275., 174900., 244275., 317400., 396150.,
564900., 748650., 947400., 1157400., 1378650.,1851150.,2353650.,
2878650.,3426150./
DATA RATE/.0225, .0525, .0825, .105, .135, .165, .1875, .21, .225,
.24, .2625, .2775, .2925, .315, .3375, .3675, .3975, .42, .4425,
.4725,.5025,.525,.5475,.57/
```

CHART TITLE - SUBROUTINE TOINC(TAX,TINC)



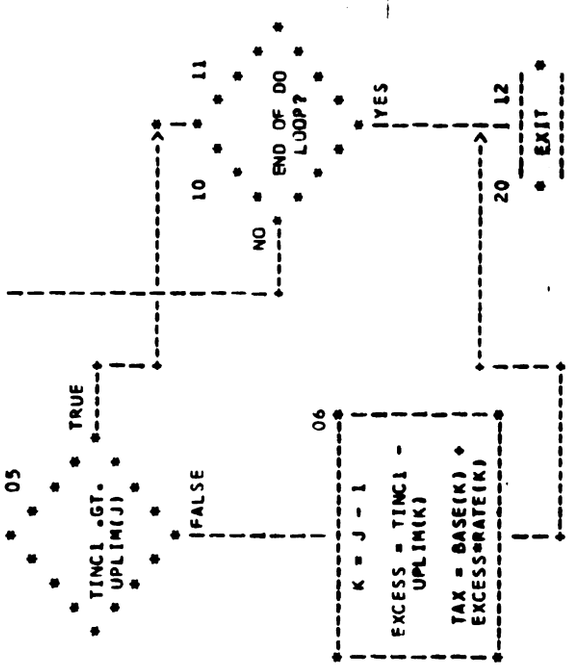

05
TINCI .GT.
UPLIM(J)
TRUE
FALSE
06
K = J - 1
EXCESS = TINCI -
UPLIM(K)
TAX = BASE(K) +
EXCESS*RATE(K)
10
11
END OF DO
LOOP?
NO
YES
20
12
EXIT

CHART TITLE - NON-PROCEDURAL STATEMENTS

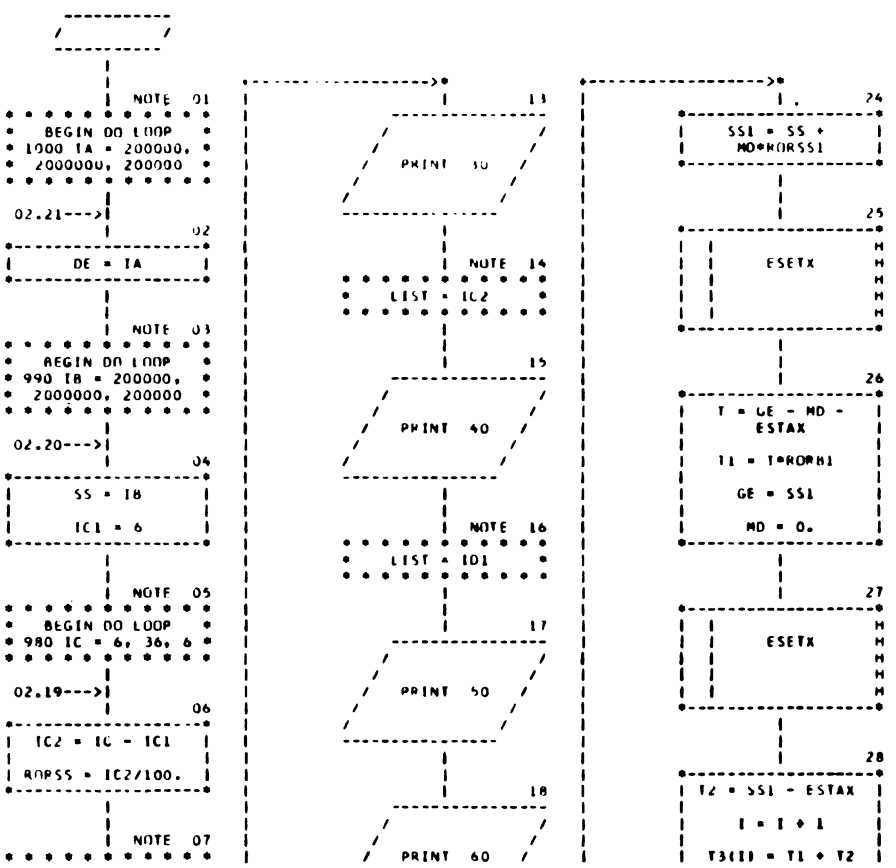
```
      DIMENSION UPLIM(25),BASE(24),RATE(24)
      DATA UPLIM/0.,500.,1000.,1500.,2000.,4000.,6000.,8000.,10000.,
     12000.,14000.,16000.,18000.,20000.,22000.,26000.,32000.,
     38000.,44000.,50000.,60000.,70000.,80000.,90000.,100000./
      DATA BASE/0.,70.,145.,225.,310.,690.,1130.,1630.,2190.,2830.,
     3550.,4330.,5170.,6070.,7030.,9030.,12210.,15510.,18990.,22590.,
     28790.,35190.,41790.,48590./
      DATA RATE/.14,.15,.16,.17,.19,.22,.25,.28,.32,.36,.39,.42,.45,.48,
     .50,.53,.55,.58,.60,.62,.64,.66,.68,.69/
```

APPENDIX D

FLOW CHARTS FOR COMPUTER PROGRAMS

1. Marital Deduction
2. Gifts in Contemplation of Death
3. Inter Vivos Trust
4. First Income Tax Year
5. Deduction of Administration Expenses
6. Alternate Valuation Date
7. Waiver of Executor's Commission

CHART TITLE - PROCEDURES



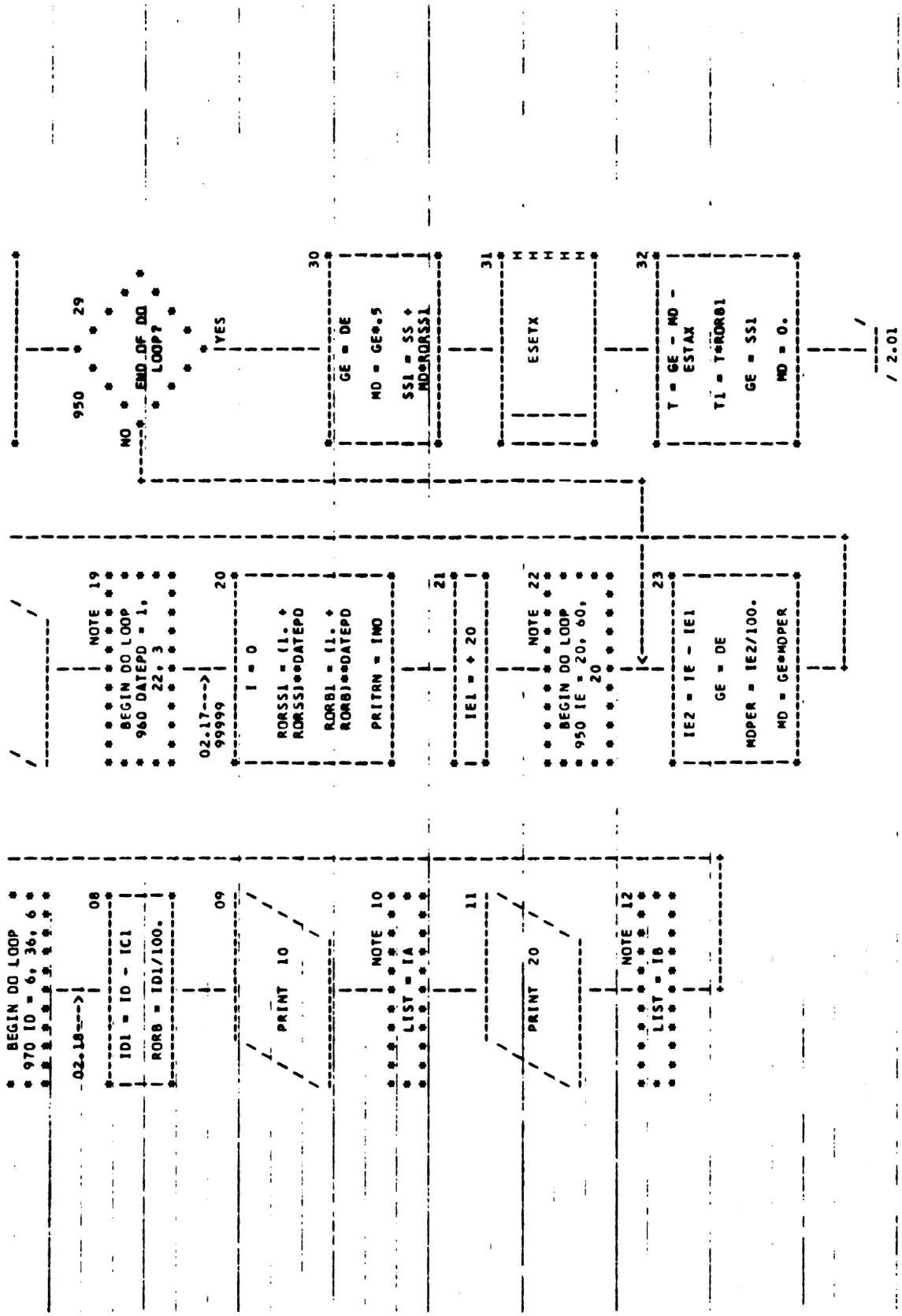
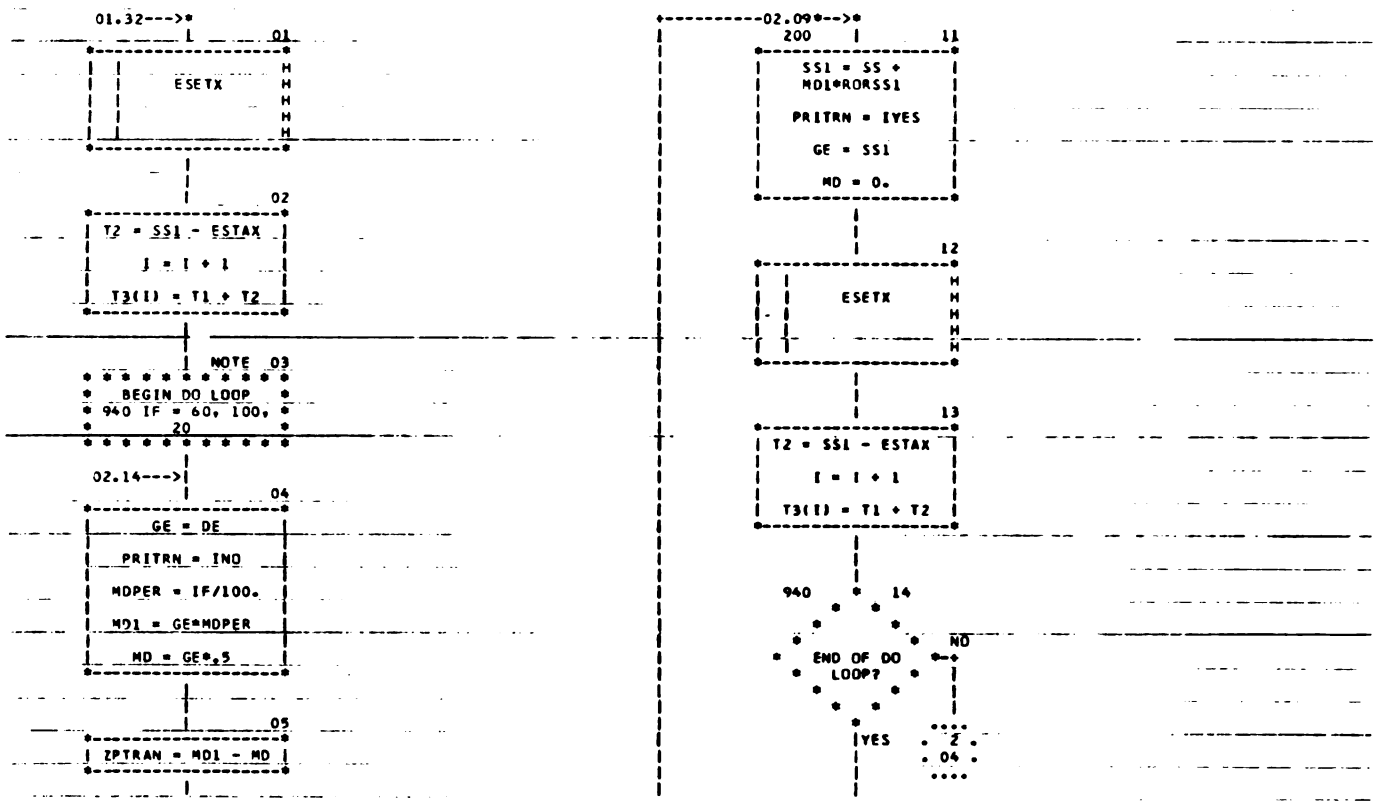

BEGIN DO LOOP
970 ID = 6, 36, 6
02.18--->
08
ID1 = ID - IC1
RORB = ID1/100.
09
PRINT 10
NOTE 10
LIST = IA
11
PRINT 20
NOTE 12
LIST = IB
NOTE 19
BEGIN DO LOOP
960 DATEPD = 1,
22, 3
02.17--->
99999
20
I = 0
RORSS1 = (1. +
RORSS)**DATEPD
RORB1 = (1. +
RORB)**DATEPD
PRITRN = IMD
21
IE1 = + 20
NOTE 22
BEGIN DO LOOP
950 IE = 20, 60,
20
23
IE2 = IE - IE1
GE = DE
MDPER = IE2/100.
MD = GE*MDPER
950
29
NO
END OF DO
LOOP?
YES
30
GE = DE
MD = GE*.5
SS1 = SS +
MD*RORSS1
31
ESETX
32
T = GE - MD -
ESTAX
T1 = T*RORB1
GE = SS1
MD = 0.
/ 2.01

CHART TITLE - PROCEDURES



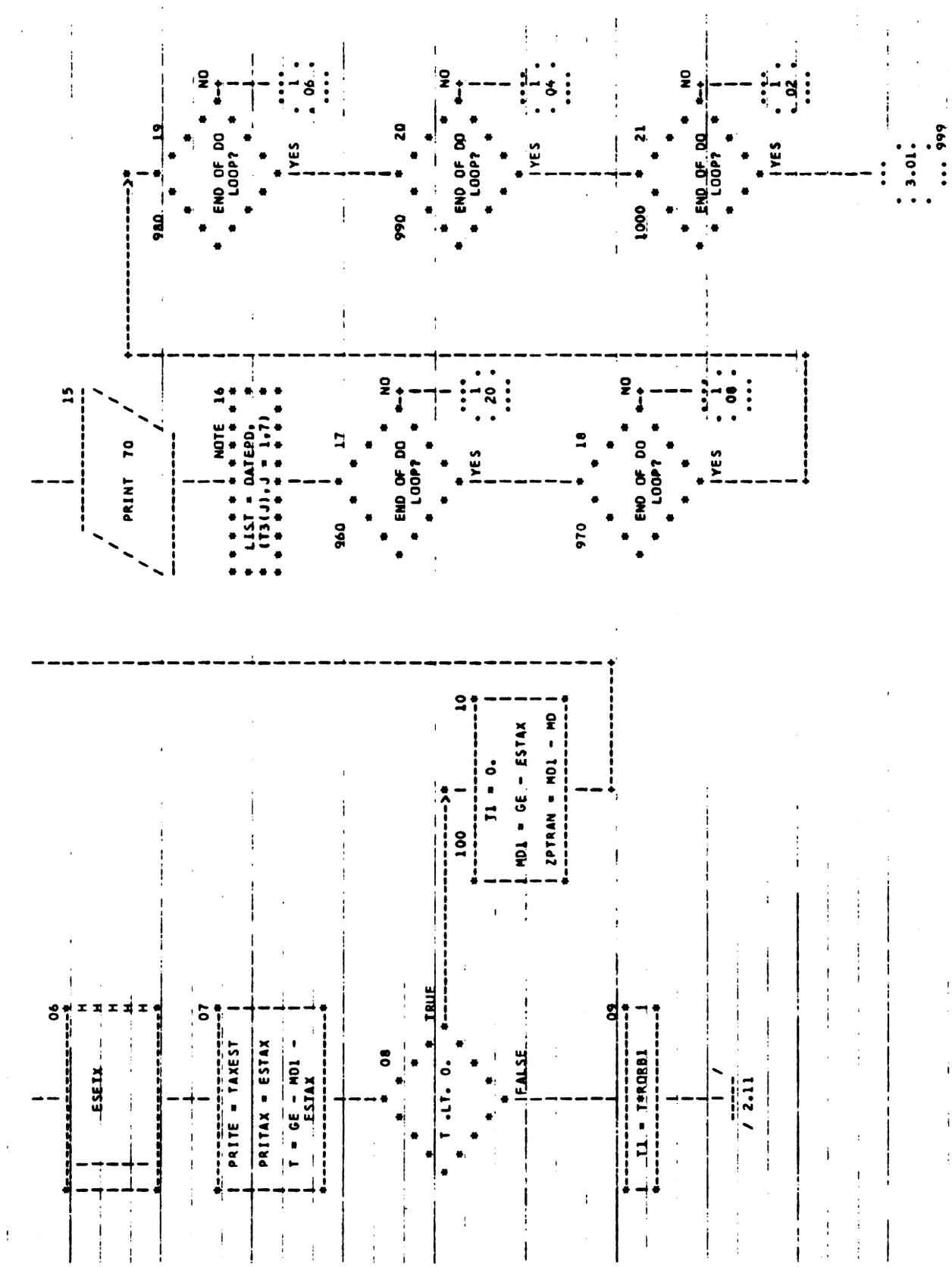

06
ESEIX
07
PRITE = TAXEST
PRITAX = ESTAX
T = GE - MD1 - ESTAX
08
T .LT. 0.
TRUE
100
10
T1 = 0.
MD1 = GE - ESTAX
ZPTRAN = MD1 - MD
FALSE
09
T1 = T*ORB1
/ 2.11
15
PRINT 70
980
19
END OF DO LOOP?
NO
YES
1.
06
NOTE 16
LIST = DATEPD,
(T3(J),J = 1,7)
960
17
END OF DO LOOP?
NO
YES
1.
20
990
20
END OF DO LOOP?
NO
YES
1.
04
970
18
END OF DO LOOP?
NO
YES
1.
08
1000
21
END OF DO LOOP?
NO
YES
1.
02
3.01.
999

CHART TITLE - PROCEDURES

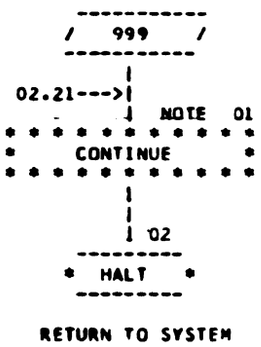
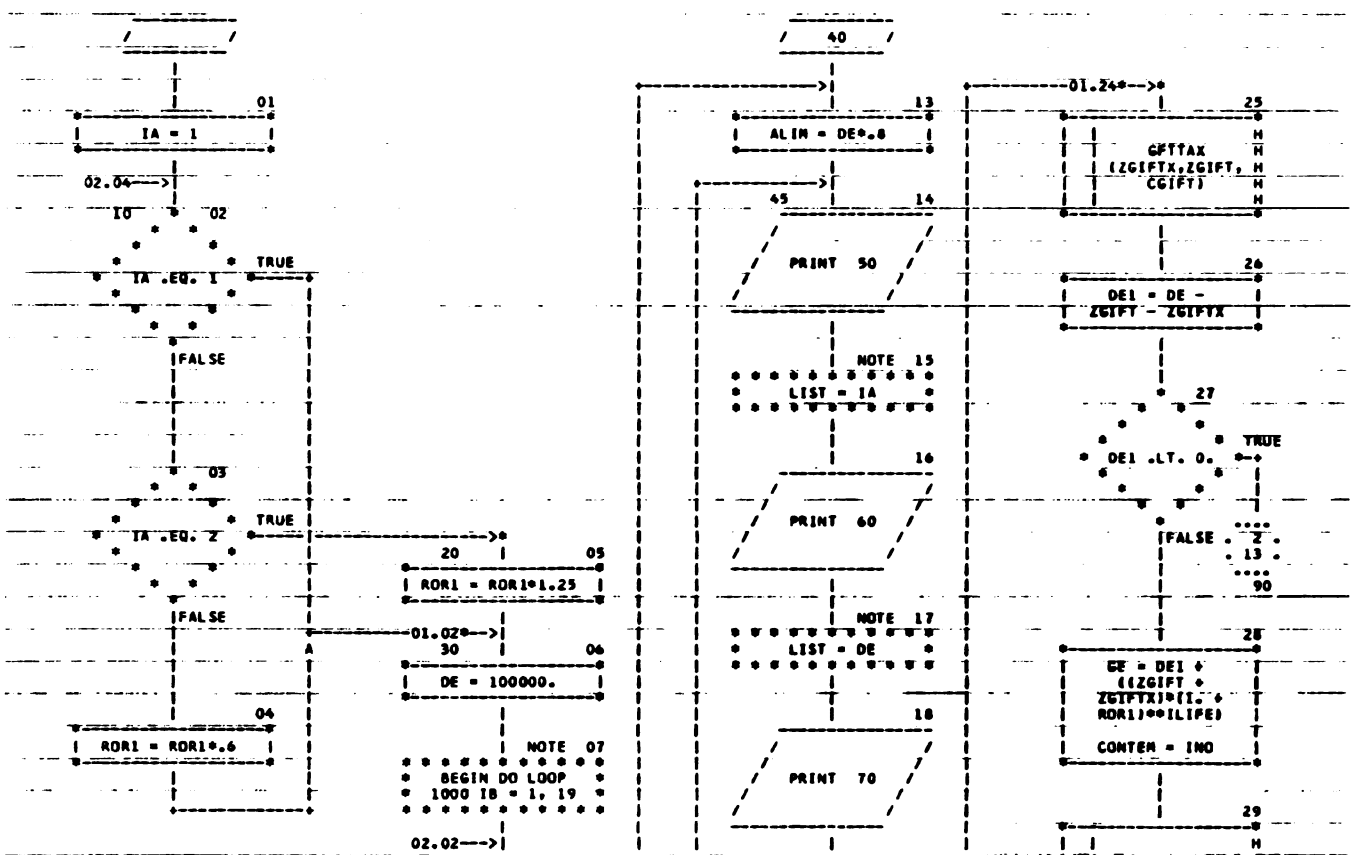


CHART TITLE - NON-PROCEDURAL STATEMENTS

```
      REAL LOSS,MD,MDPER,MD1
      INTEGER PRITRN,DATEPD,CONTEM
      DIMENSION T3(7)
      COMMON /BLK1/GE,ADMEXP,DEBTS,LOSS,CHAR,MD,PRITRN,DATEPD,ZPTRAN,
     PRITE,PRITAX,CONTEM,ZGIFT,ZGIFTX,ZVGIFT,EXCL,ESTAX,TAXEST
      DATA INO/'NO'/,IYES/'YES'/
   10 FORMAT ('0',1X,'DECEDENT ESTATE',10X,I8)
   20 FORMAT (/,1X,'SPOUSE ESTATE',10X,I8)
   30 FORMAT (/,1X,'SPOUSE RATE OF RETURN',10X,I3)
   40 FORMAT(/,1X,'BENEFICIARY RATE OF RETURN',10X,I3)
   50 FORMAT ('0',1X,'LIFE',10X,'MARITAL DEDUCTION PERCENTAGE')
   60 FORMAT (/,23X,'0',13X,'20',13X,'40',13X,'50',13X,'60',13X,'80',13X
     ,'100')
   70 FORMAT (/,1X,I3,11X,(7(F13.2,2X)))
```

CHART TITLE - PROCEDURES



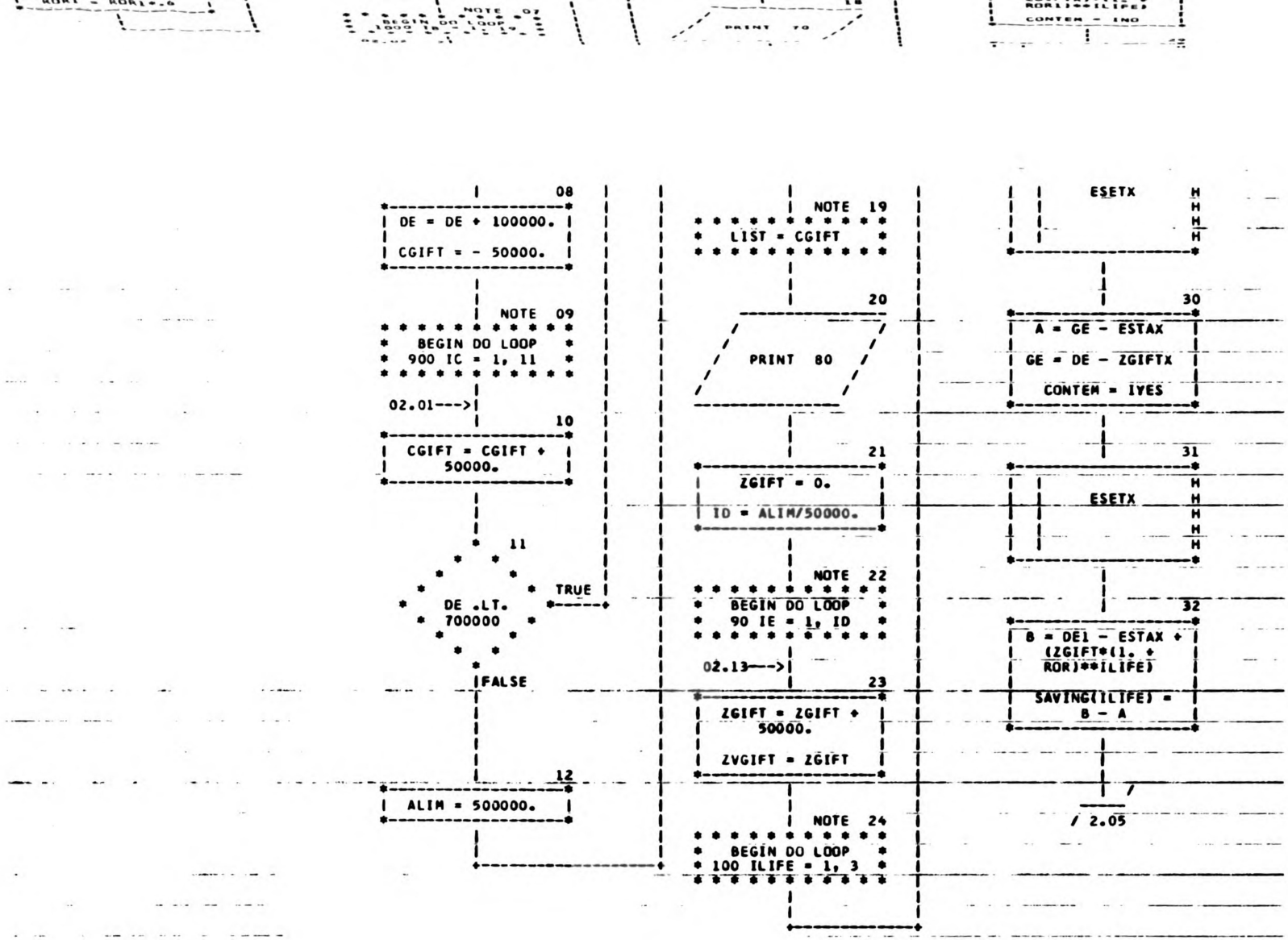
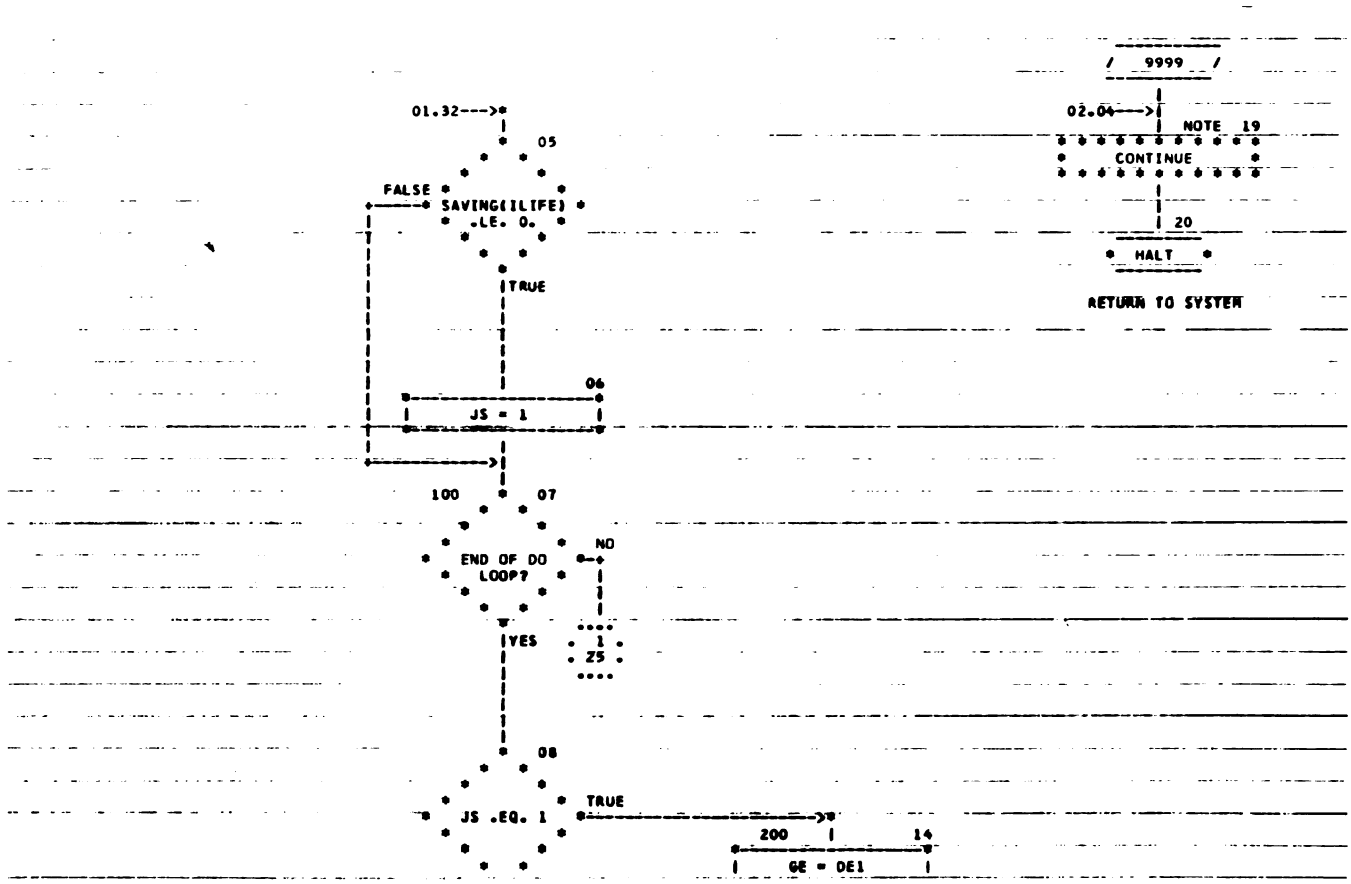

08
DE = DE + 100000.
CGIFT = - 50000.
NOTE 09
BEGIN DO LOOP
900 IC = 1, 11
02.01--->
10
CGIFT = CGIFT + 50000.
11
DE .LT. 700000
TRUE
FALSE
12
ALIM = 500000.
NOTE 19
LIST = CGIFT
20
PRINT 80
21
ZGIFT = 0.
ID = ALIM/50000.
NOTE 22
BEGIN DO LOOP
90 IE = 1, ID
02.13--->
23
ZGIFT = ZGIFT + 50000.
ZVGIFT = ZGIFT
NOTE 24
BEGIN DO LOOP
100 ILIFE = 1, 3
ESETX
30
A = GE - ESTAX
GE = DE - ZGIFTX
CONTEM = IYES
31
ESETX
32
B = DE1 - ESTAX + (ZGIFT*(1. + ROR)**ILIFE)
SAVING(ILIFE) = B - A
/ 2.05

CHART TITLE - PROCEDURES



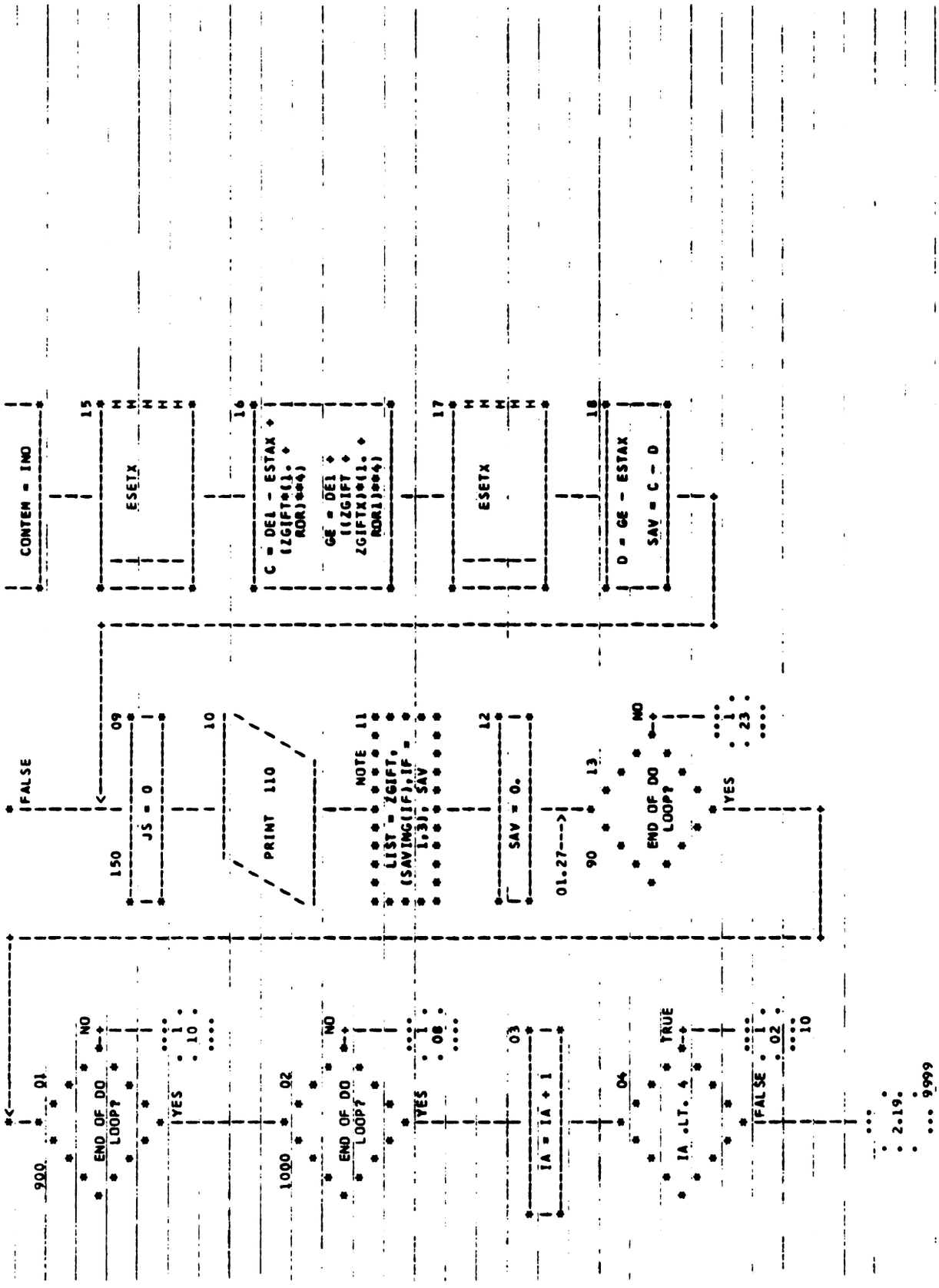
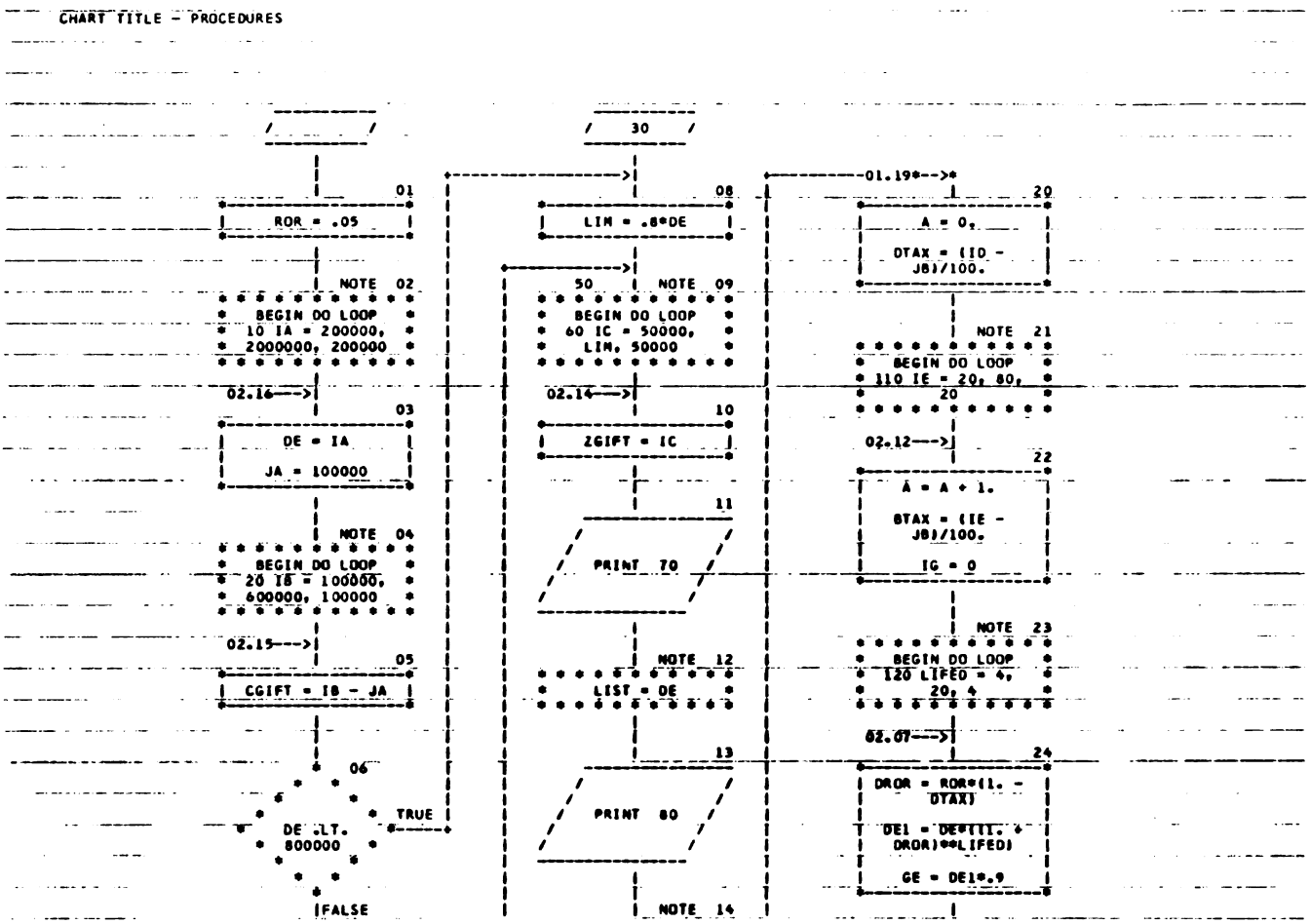

CONTEM = IND
15
ESETX
16
C = DE1 - ESTAX + (ZGIFT*(1. + RDR)**4)
GE = DE1 + ((ZGIFT + ZGIFTX)*(1. + RDR))**4)
17
ESETX
18
D = GE - ESTAX
SAV = C - D
FALSE
09
150
JS = 0
10
PRINT 110
NOTE 11
LIST = ZGIFT, (SAVING(IF),IF = 1,3), SAV
12
SAV = 0.
01.27
13
90
END OF DO LOOP?
NO
YES
1.
23.
01
900
END OF DO LOOP?
NO
YES
1.
10.
02
1000
END OF DO LOOP?
NO
YES
1.
08.
03
IA = IA + 1
04
IA .LT. 4
TRUE
FALSE
1.
02.
10
2.19.
9999

CHART TITLE - NON-PROCEDURAL STATEMENTS

```
      REAL LOSS,MD
      INTEGER PRITRN,DATEPD,CONTEM
      DIMENSION SAVING (3)
      COMMON /BLK1/GE,ADMEXP,DEBTS,LOSS,CHAR,MD,PRITRN,DATEPD,ZPTRAN,
     PRITE,PRITAX,CONTEM,ZGIFT,ZGIFTX,ZVGIFT,EXCL,ESTAX
      DATA INO /'NO'/
      DATA IYES /'YES'/
      DATA ROR/.06/
      DATA ROR1/.06/
   50 FORMAT ('1', 20X, 'RUN NUMBER', 1X, I2)
   60 FORMAT (' ',20X, 'DECEDENT ESTATE',1X,F9.0)
   70 FORMAT (' ',20X, 'CUMULATIVE GIFTS', 1X, F9.0)
   80 FORMAT('0','GIFT',30X,'1 YEAR',19X,'2 YEARS',19X,'3 YEARS',19X,
     'SAVING')
  110 FORMAT('0',F9.0,15X,(3(F18.2,10X)),F18.2)
```

CHART TITLE - PROCEDURES



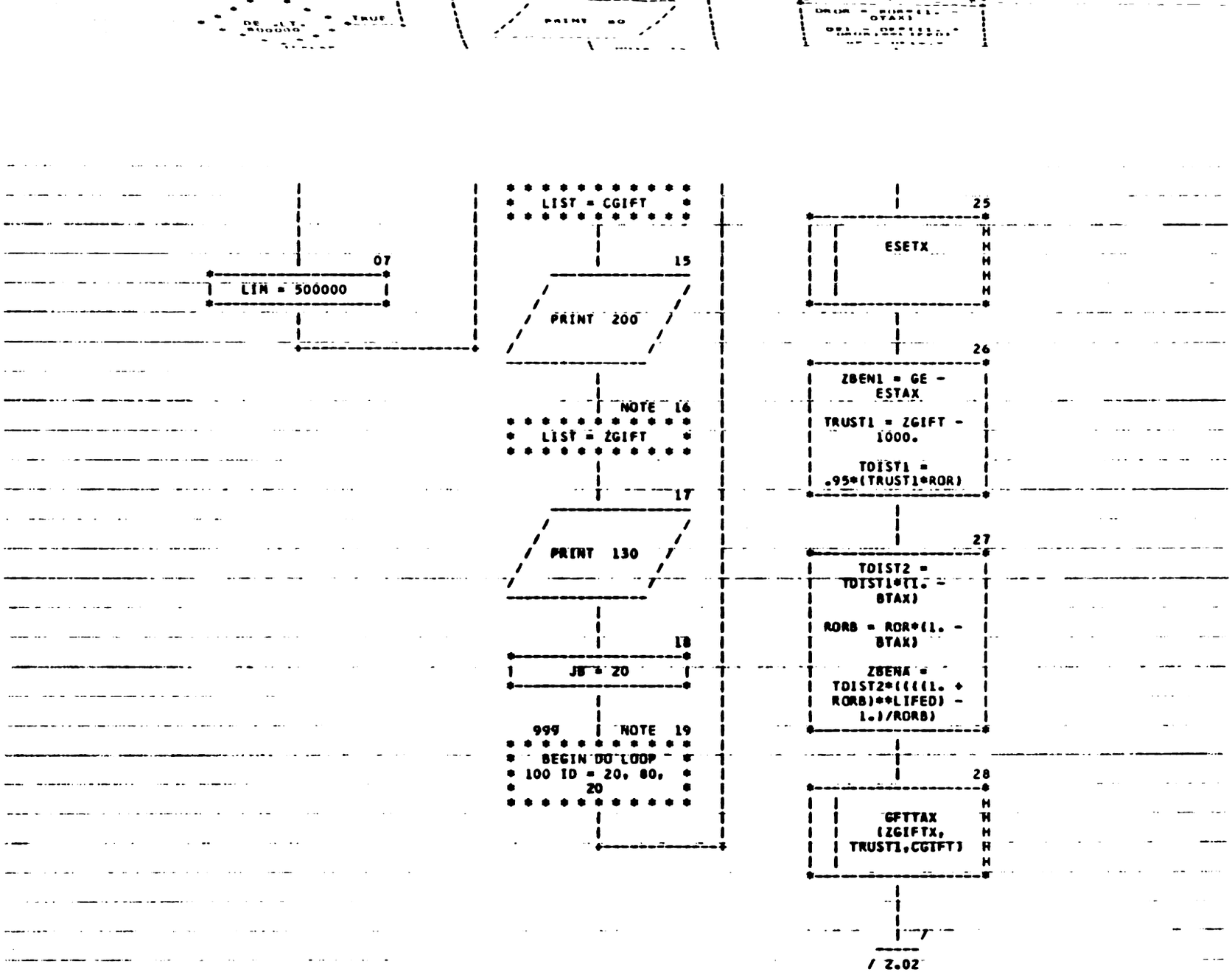
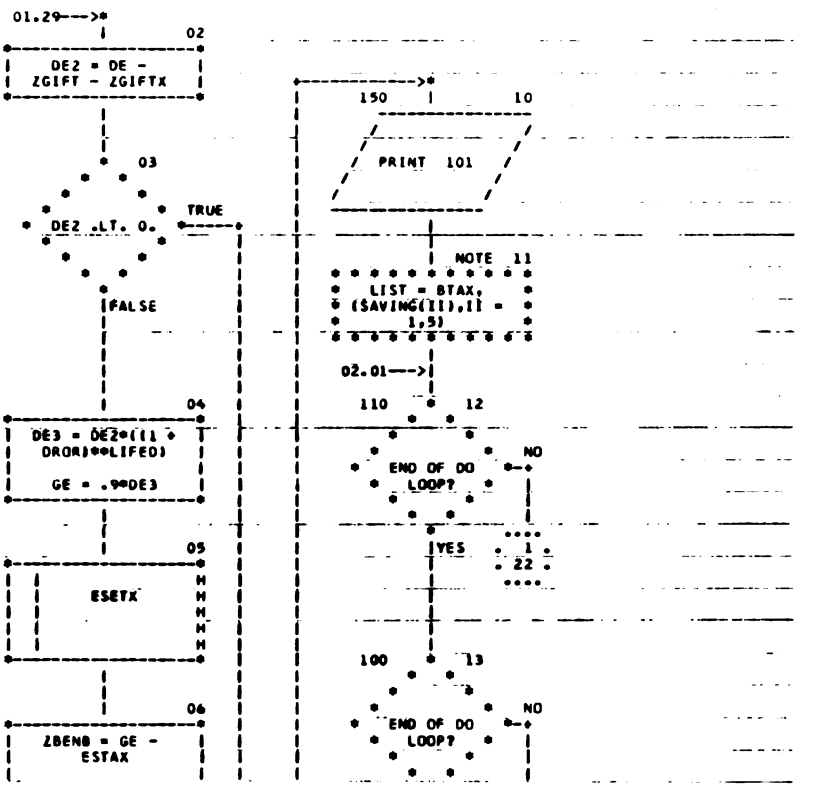

07
LIN = 500000
LIST = CGIFT
15
PRINT 200
NOTE 16
LIST = ZGIFT
17
PRINT 130
18
JB = 20
999
NOTE 19
BEGIN DO LOOP
100 ID = 20, 80,
20
25
ESETX
26
ZBEN1 = GE -
ESTAX
TRUST1 = ZGIFT -
1000.
TDIST1 =
.95*(TRUST1*ROR)
27
TDIST2 =
TDIST1*(1. -
STAX)
RORB = ROR*(1. -
STAX)
ZBENA =
TDIST2*((((1. +
RORB)**LIFED) -
1.)/RORB)
28
GFTTAX
(ZGIFTX,
TRUST1,CGIFT)
/ Z.02

CHART TITLE - PROCEDURES



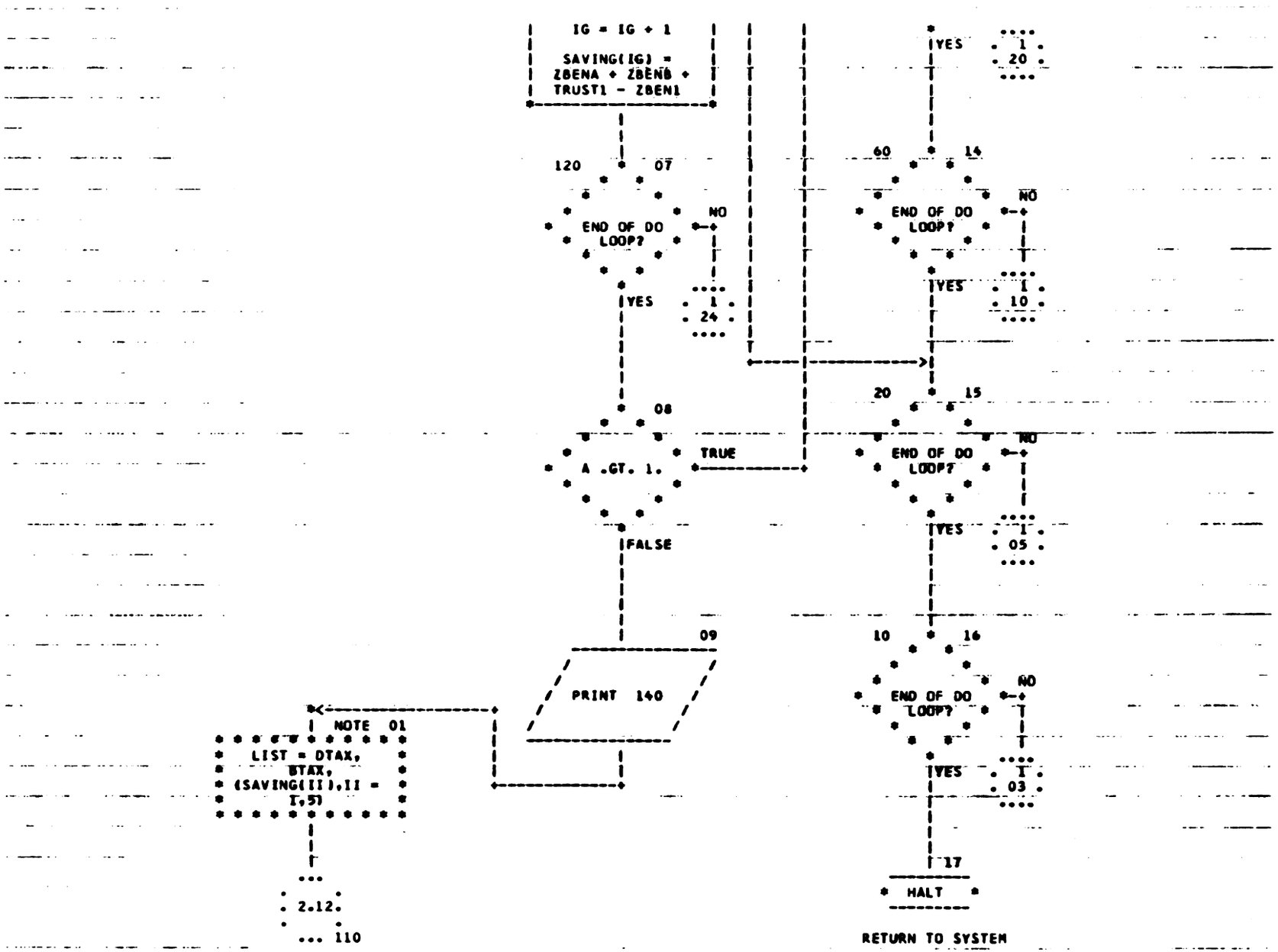
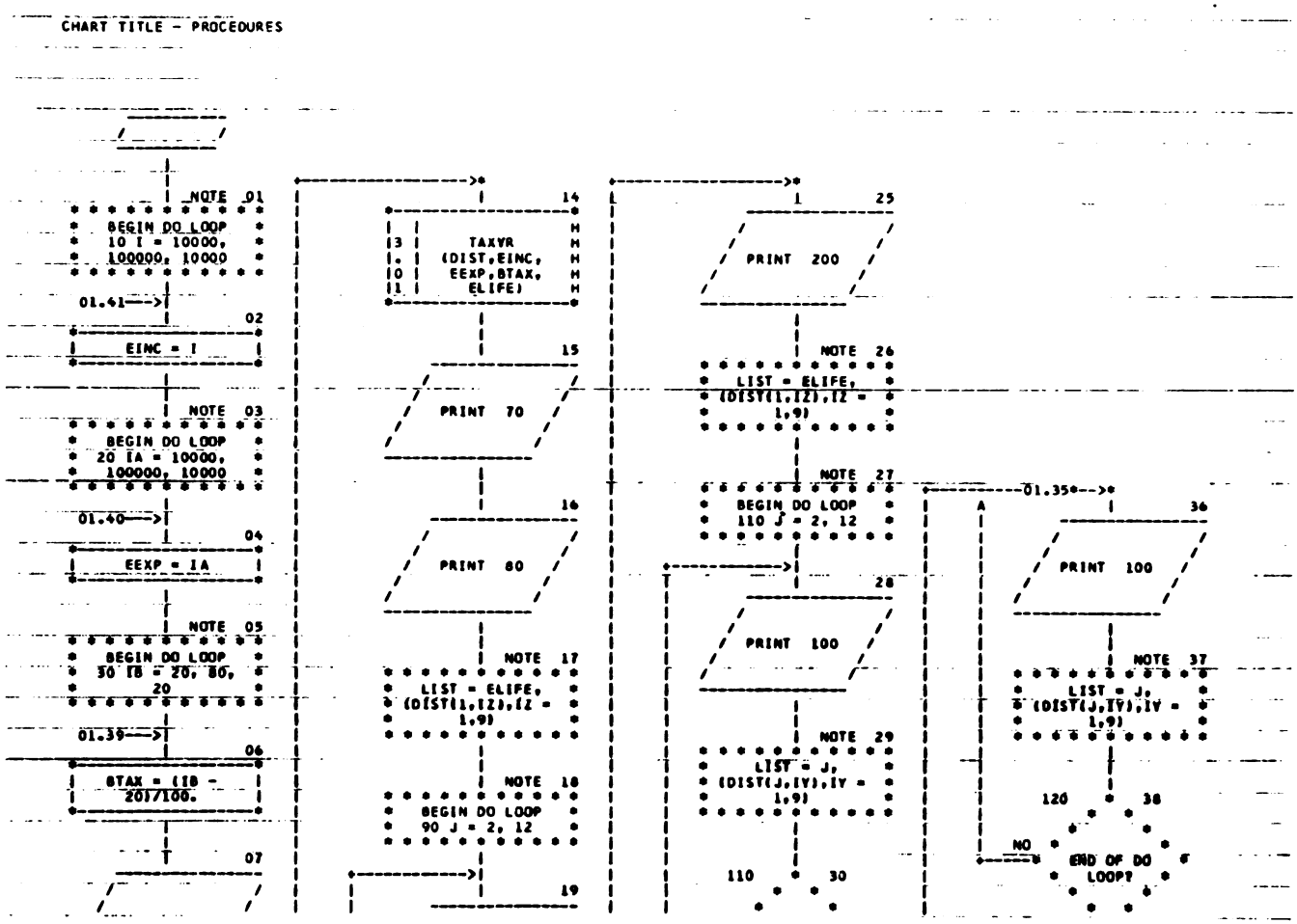

IG = IG + 1
SAVING(IG) = ZBENA + ZBENB + TRUST1 - ZBEN1
120
07
END OF DO LOOP?
NO
YES
1
24
08
A .GT. 1.
TRUE
FALSE
09
PRINT 140
NOTE 01
LIST = DTAX, BTAX, (SAVING(II),II = I,5)
2.12.
110
60
14
END OF DO LOOP?
NO
YES
1
20
1
10
20
15
END OF DO LOOP?
NO
YES
1
05
10
16
END OF DO LOOP?
NO
YES
1
03
17
HALT
RETURN TO SYSTEM

CHART TITLE - NON-PROCEDURAL STATEMENTS

```
      REAL LOSS,MD
      INTEGER PRITRN,DATEPD,CONTEM
      DIMENSION SAVING (5)
      COMMON /BLK1/GE,ADMEXP,DEBTS,LOSS,CHAR,MD,PRITRN,DATEPD,ZPTRAN,
      PRITE,PRITAX,CONTEM,ZGIFT,ZGIFTX,ZVGIFT,EXCL,ESTAX
      DATA INO /'NO'/
      DATA IYES /'YES'/
70    FORMAT ('1', 20X, 'DECEDENT ESTATE', 2X, F9.0)
80    FORMAT ('0',20X, 'CUMULATIVE GIFTS', 2X, F9.0)
200    FORMAT('0',20X,'GIFT TO TRUST',2X,F9.0)
130   FORMAT ('0',1X,'DEC. TAX RATE',5X,'BEN.TAX RATE',20X, 'LIFE'/50X,
      '4',14X,'8',13X,'12',15X,'16' ,14X,'20')
140   FORMAT ('0',11X,F3.2,16X,F3.2,5X, (5(F15.2,1X)))
101   FORMAT('0',30X,F3.2,5X, (5(F15.2,1X)))
```

CHART TITLE - PROCEDURES



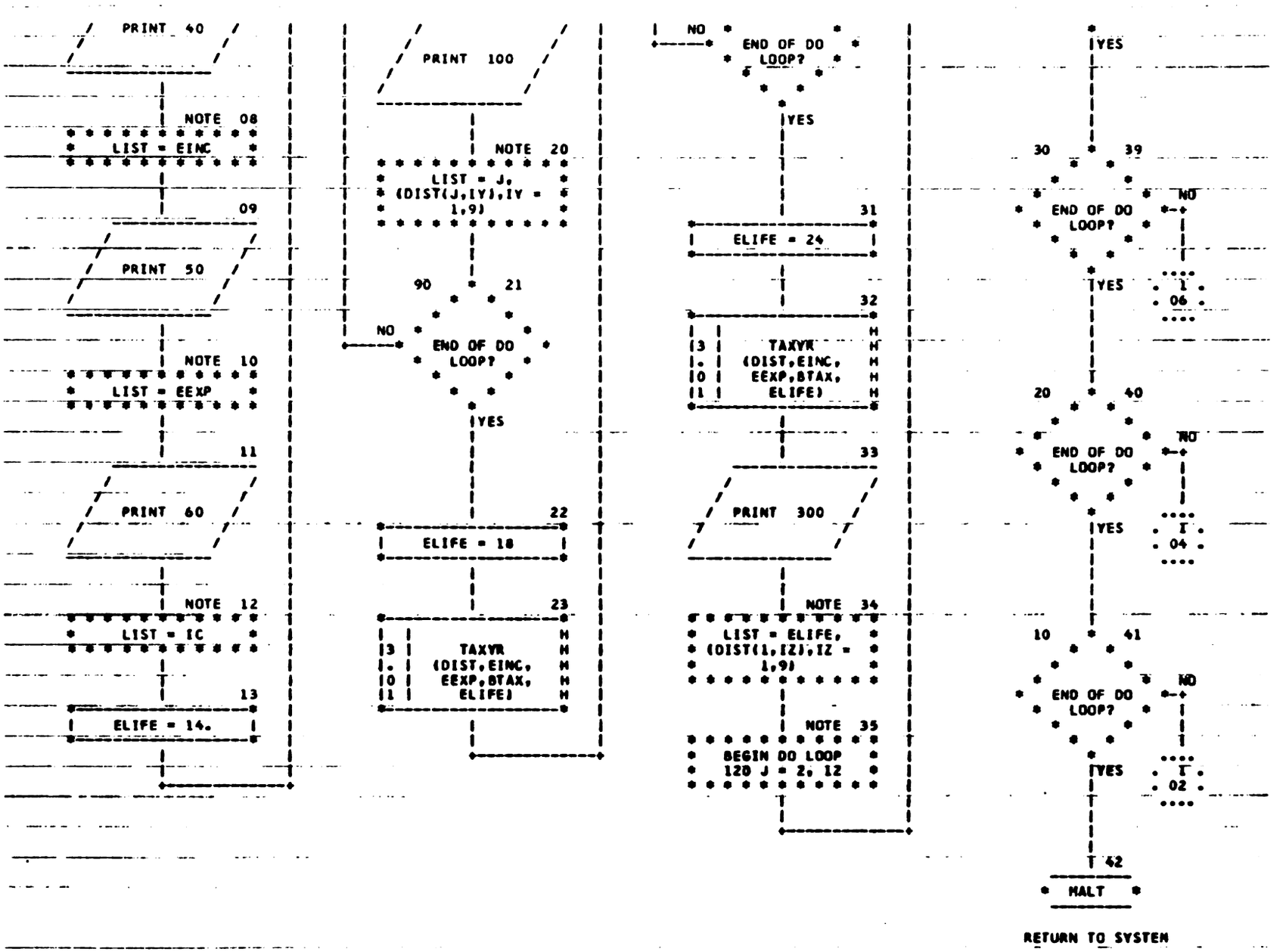
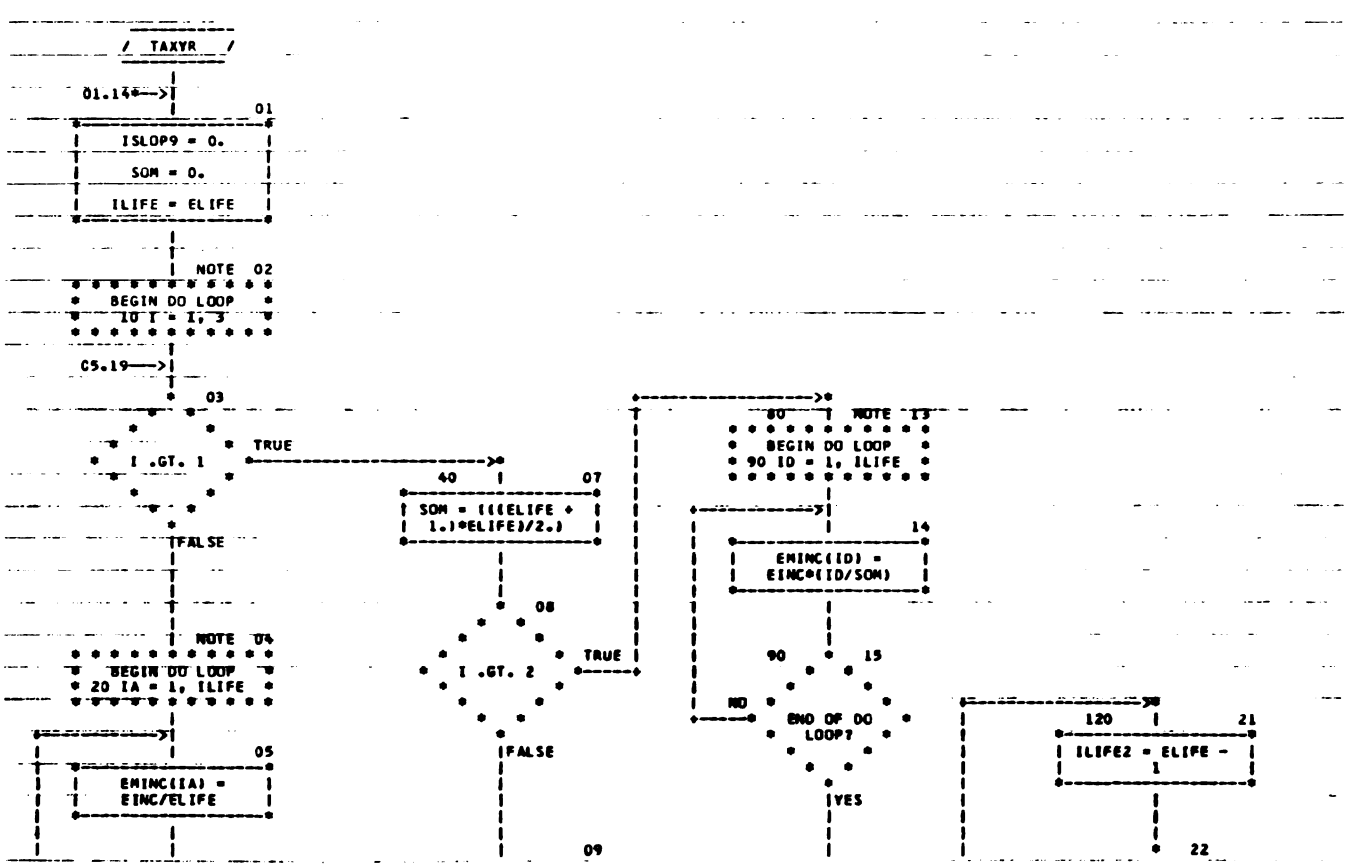

PRINT 40
NOTE 08
LIST = EINC
09
PRINT 50
NOTE 10
LIST = EEXP
11
PRINT 60
NOTE 12
LIST = IC
13
ELIFE = 14.
PRINT 100
NOTE 20
LIST = J,
(DIST(J,IY),IY =
1,9)
90
21
NO
END OF DO
LOOP?
YES
22
ELIFE = 18
23
TAXYR
(DIST,EINC,
EEXP,BTAX,
ELIFE)
NO
END OF DO
LOOP?
YES
31
ELIFE = 24
32
TAXYR
(DIST,EINC,
EEXP,BTAX,
ELIFE)
33
PRINT 300
NOTE 34
LIST = ELIFE,
(DIST(1,IZ),IZ =
1,9)
NOTE 35
BEGIN DO LOOP
120 J = 2, 12
YES
30
39
NO
END OF DO
LOOP?
YES
1
06
20
40
NO
END OF DO
LOOP?
YES
I
04
10
41
NO
END OF DO
LOOP?
YES
I
02
42
HALT
RETURN TO SYSTEM

CHART TITLE - NON-PROCEDURAL STATEMENTS

```
      DIMENSION DIST (12,9)
      DATA DIST/108*0./
   40 FORMAT ('1',30X,'ESTATE INCOME',1X,F8.0)
   50 FORMAT ('0',30X,'ESTATE EXPENSES',1X,F8.0)
   60 FORMAT ('0',30X,'BENEFICIARY INC TAX RATE',1X,I4,1X,'%')
   70 FORMAT (' ','LIFE OF',3X,'LENGTH OF',23X,'PATTERN OF RECEIPTS/
     EXPENSES'/2X,'ESTATE',3X,'FIRST YEAR', 6X,'SL/SL',6X,'SL/DEC',6X,
     'SL/ACC',5X,'ACC/SL',4X,'ACC/DEC',4X,'ACC/ACC',5X,'DEC/SL',4X,
     'DEC/DEC',4X,'DEC/ACC')
   80 FORMAT ('0',4X,F3.0,7X,'1',7X,9(F10.2,1X))
  100 FORMAT ('0',13X,I2,7X,9(F10.2,1X))
  200 FORMAT('0',//,5X,F3.0,7X,'1',7X,9(F10.2,1X))
  300 FORMAT('1',4X,F3.0,7X,'1',7X,9(F10.2,1X))
```

CHART TITLE - SUBROUTINE TAXYR(DIST,EINC,EEXP,BTAX,ELIFE)



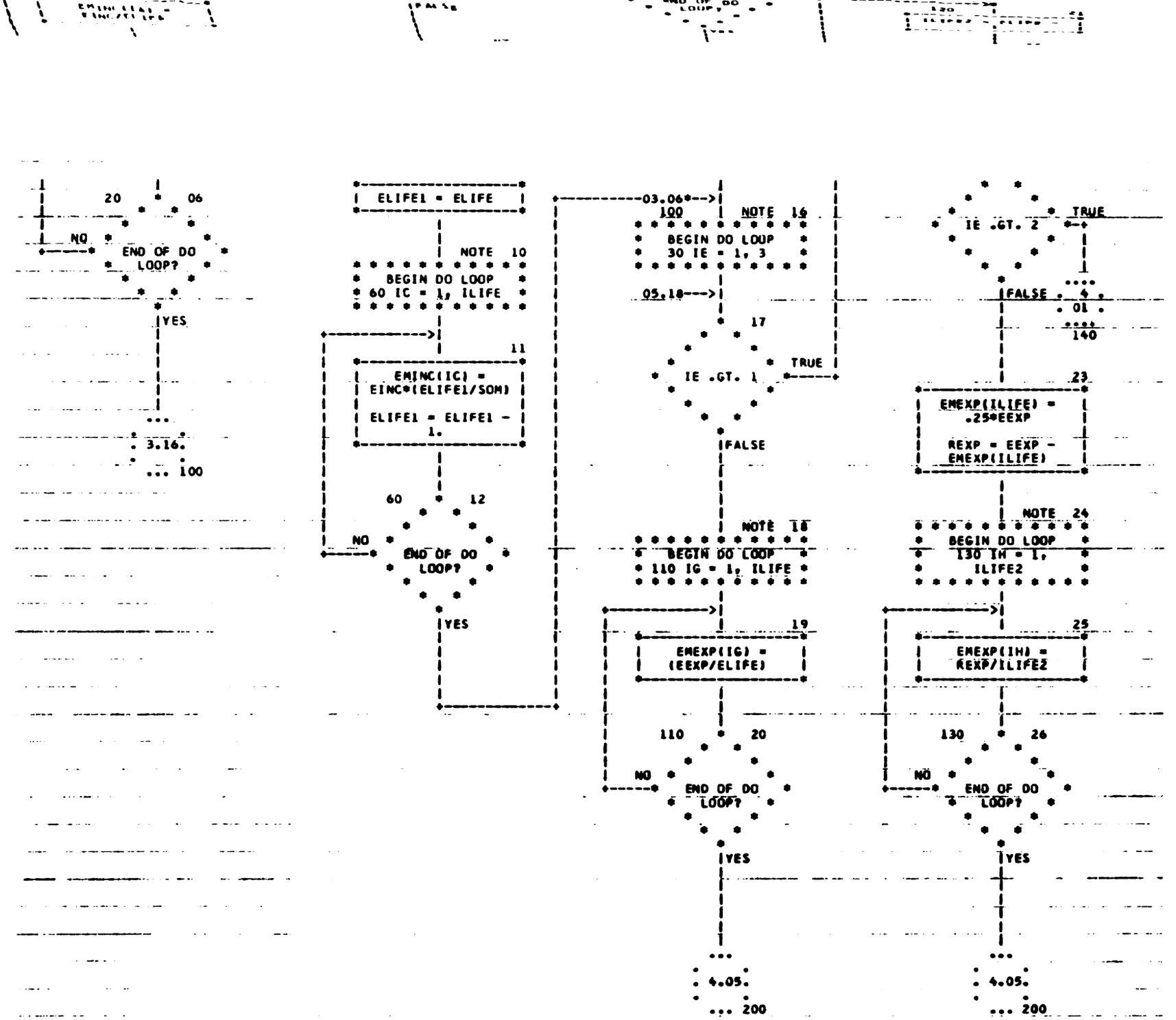
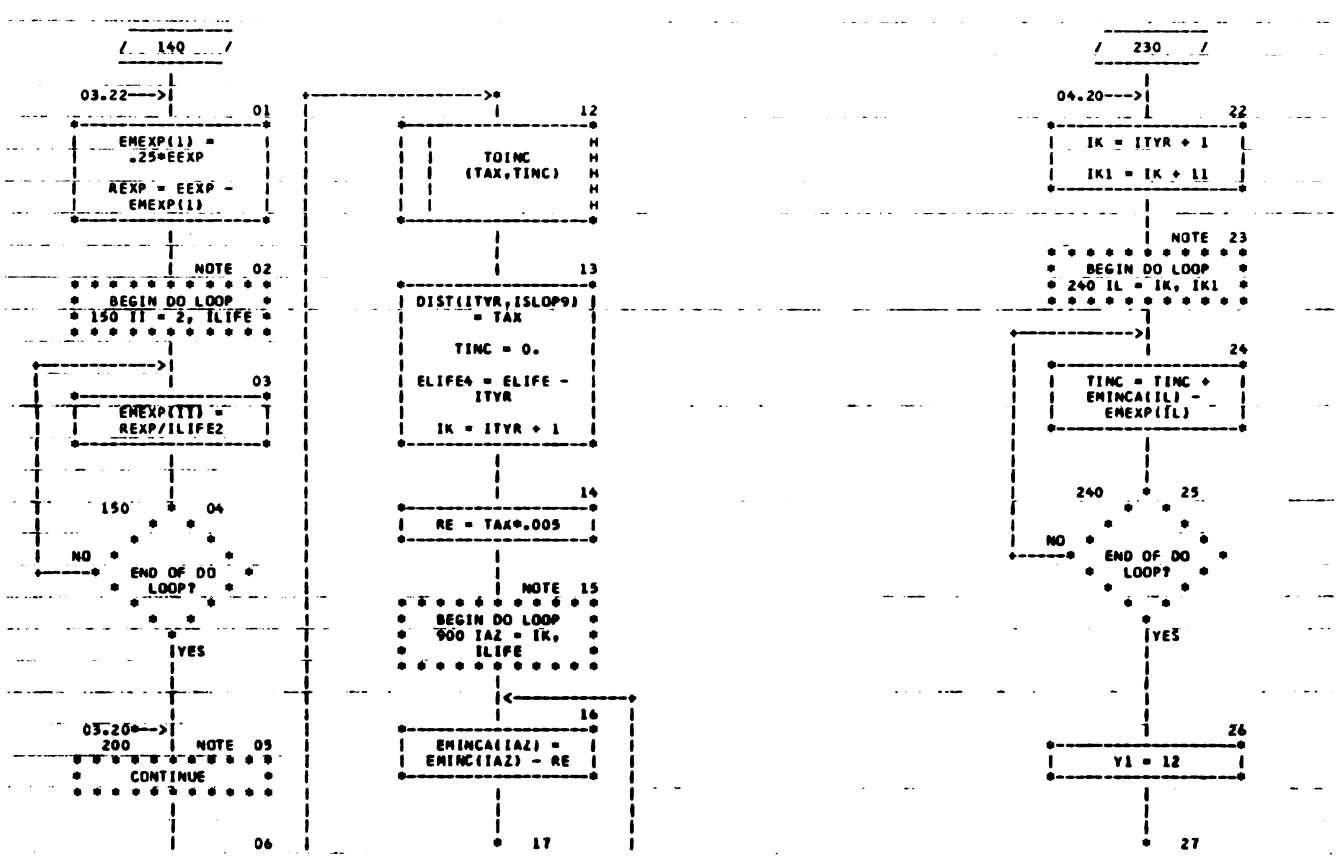

20
06
NO
END OF DO LOOP?
YES
3.16.
100
ELIFE1 = ELIFE
NOTE 10
BEGIN DO LOOP
60 IC = 1, ILIFE
11
EINC(IC) = EINC*(ELIFE1/SOM)
ELIFE1 = ELIFE1 - 1.
60
12
NO
END OF DO LOOP?
YES
03,06
100
NOTE 16
BEGIN DO LOOP
30 IE = 1, 3
05,18
17
IE .GT. 1
TRUE
FALSE
NOTE 18
BEGIN DO LOOP
110 IG = 1, ILIFE
19
EMEXP(IG) = (EEXP/ELIFE)
110
20
NO
END OF DO LOOP?
YES
4.05.
200
IE .GT. 2
TRUE
FALSE
4
01
140
23
EMEXP(ILIFE) = .25*EEXP
REXP = EEXP - EMEXP(ILIFE)
NOTE 24
BEGIN DO LOOP
130 IH = 1, ILIFE2
25
EMEXP(IH) = REXP/ILIFE2
130
26
NO
END OF DO LOOP?
YES
4.05.
200

CHART TITLE - SUBROUTINE TAXYR(DIST,EINC,EEXP,BTAX,ELIFE)



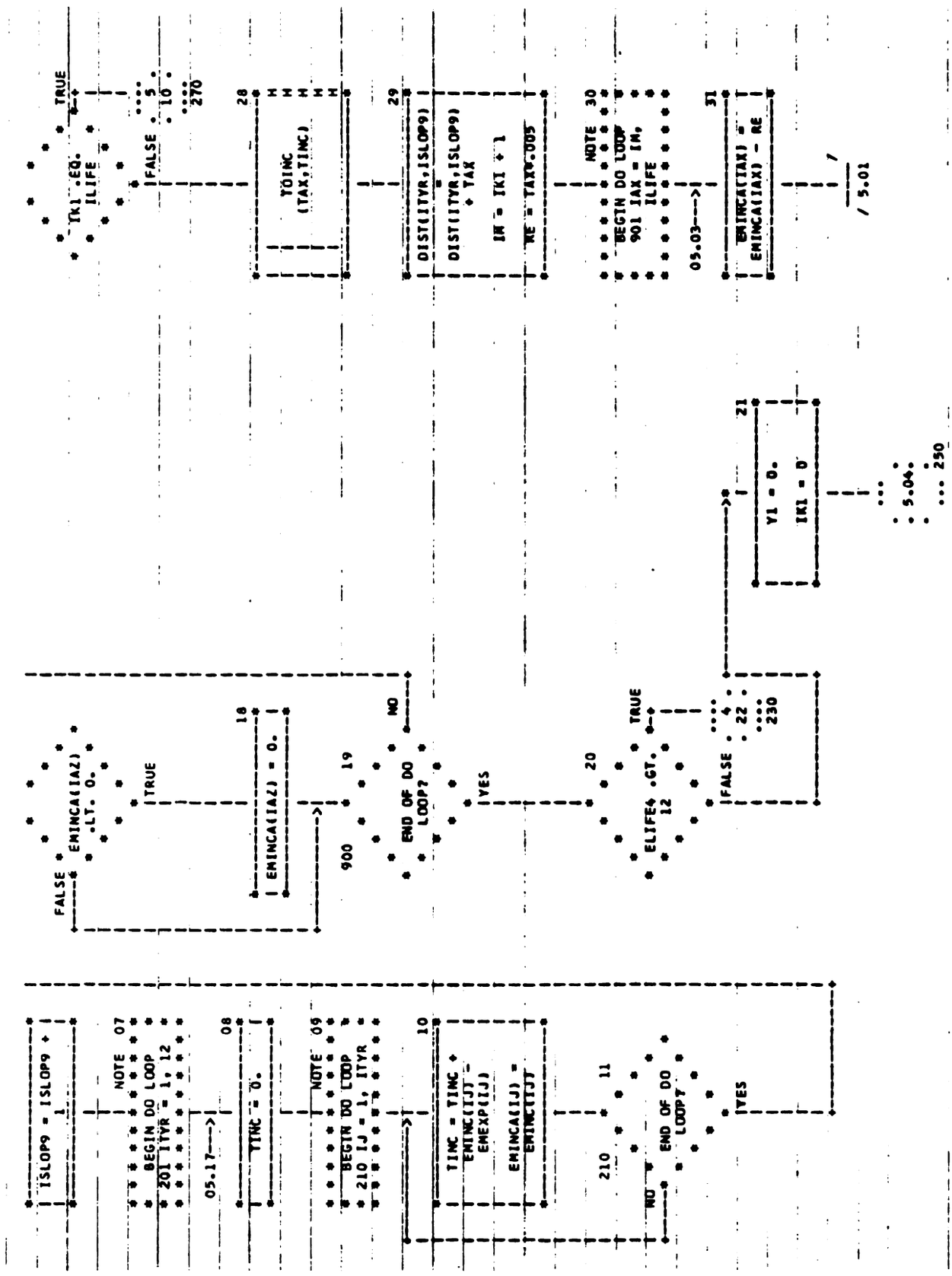
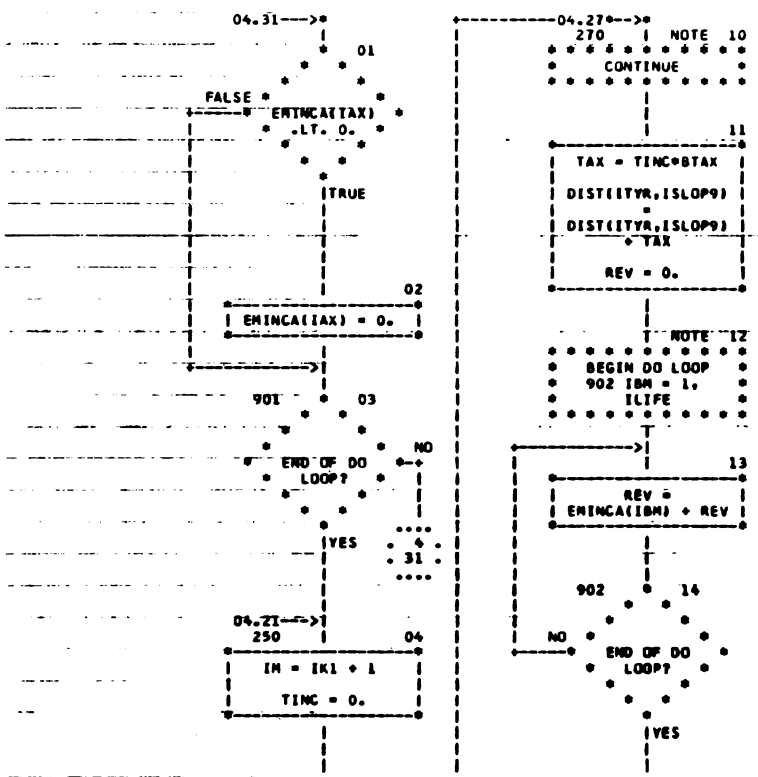

ISLOP9 = ISLOP9 + 1
NOTE 07
BEGIN DO LOOP
201 ITYR = 1, 12
05.17
08
TINC = 0.
NOTE 09
BEGIN DO LOOP
210 IJ = 1, ITYR
10
TINC = TINC + EMINC(IJJ) * EMEXP(IJ)
EMINCA(IJ) = EMINC(IJJ)
210
11
NO
END OF DO LOOP?
YES
FALSE
EMINCA(IAZ) .LT. 0.
TRUE
18
EMINCA(IAZ) = 0.
900
19
NO
END OF DO LOOP?
YES
20
ELIFE4 .GT. 12
TRUE
FALSE
4
22
230
21
Y1 = 0.
IK1 = 0
IK1 .EQ. ILIFE
TRUE
FALSE
5
10
270
28
YOINC (TAX,TINC)
29
DIST(IITYR,ISLOP9) * TAX
IK = IK1 + 1
RE = TAXV.005
NOTE 30
BEGIN DO LOOP
901 IAX = IK, ILIFE
05.03
31
EMINCA(IAX) = EMINCA(IAX) - RE
/ 5.01
5.04
250

CHART TITLE = SUBROUTINE TAXYR(IDIST,EINC,EEXP,BTAX,ELIFE)



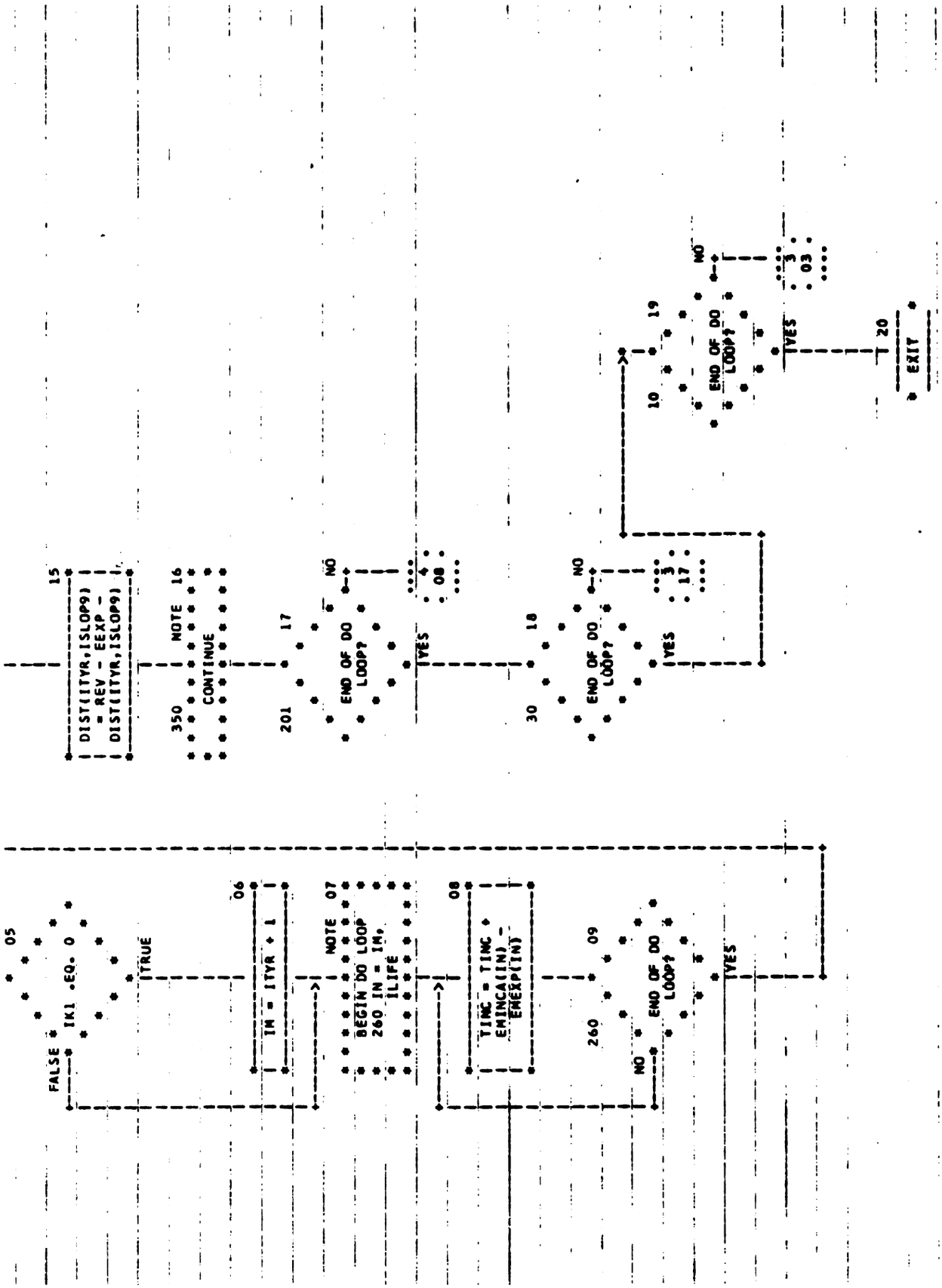
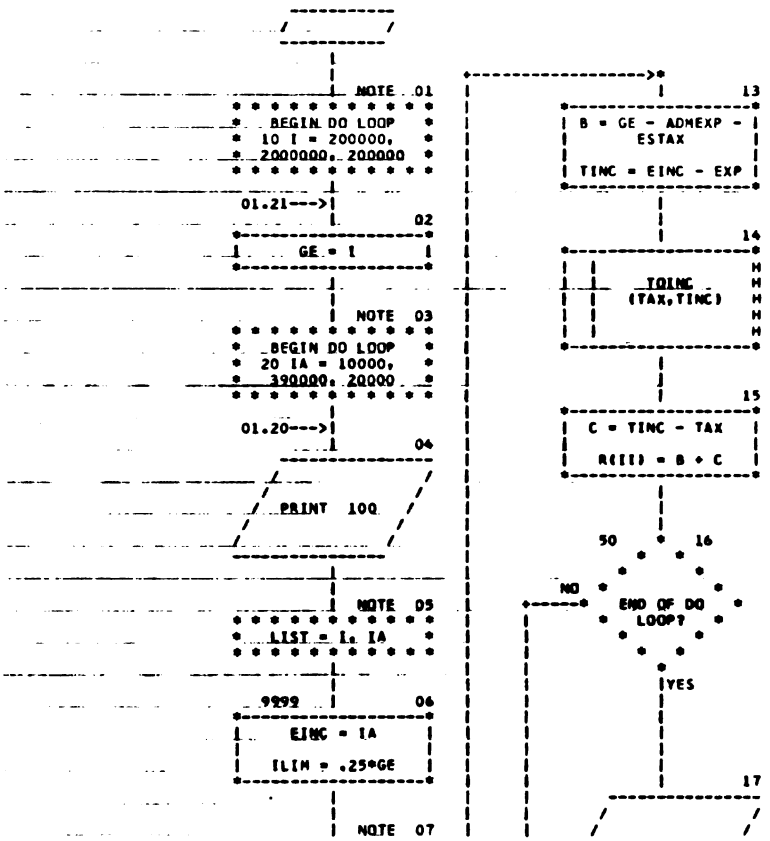

05
IK1 .EQ. 0
FALSE
TRUE
06
IM = ITYR + 1
NOTE 07
BEGIN DO LOOP
260 IN = IM,
ILIFE
08
TINC = TINC +
EMINCA(IN) -
EMEXP(IN)
09
260
END OF DO
LOOP?
NO
YES
15
DIST(ITYR,ISLOP9)
= REV - EEXP -
DIST(ITYR,ISLOP9)
NOTE 16
350 CONTINUE
17
201
END OF DO
LOOP?
NO
YES
.08.
18
30
END OF DO
LOOP?
NO
YES
.17.
19
10
END OF DO
LOOP?
NO
YES
.03.
20
EXIT

CHART TITLE - PROCEDURES



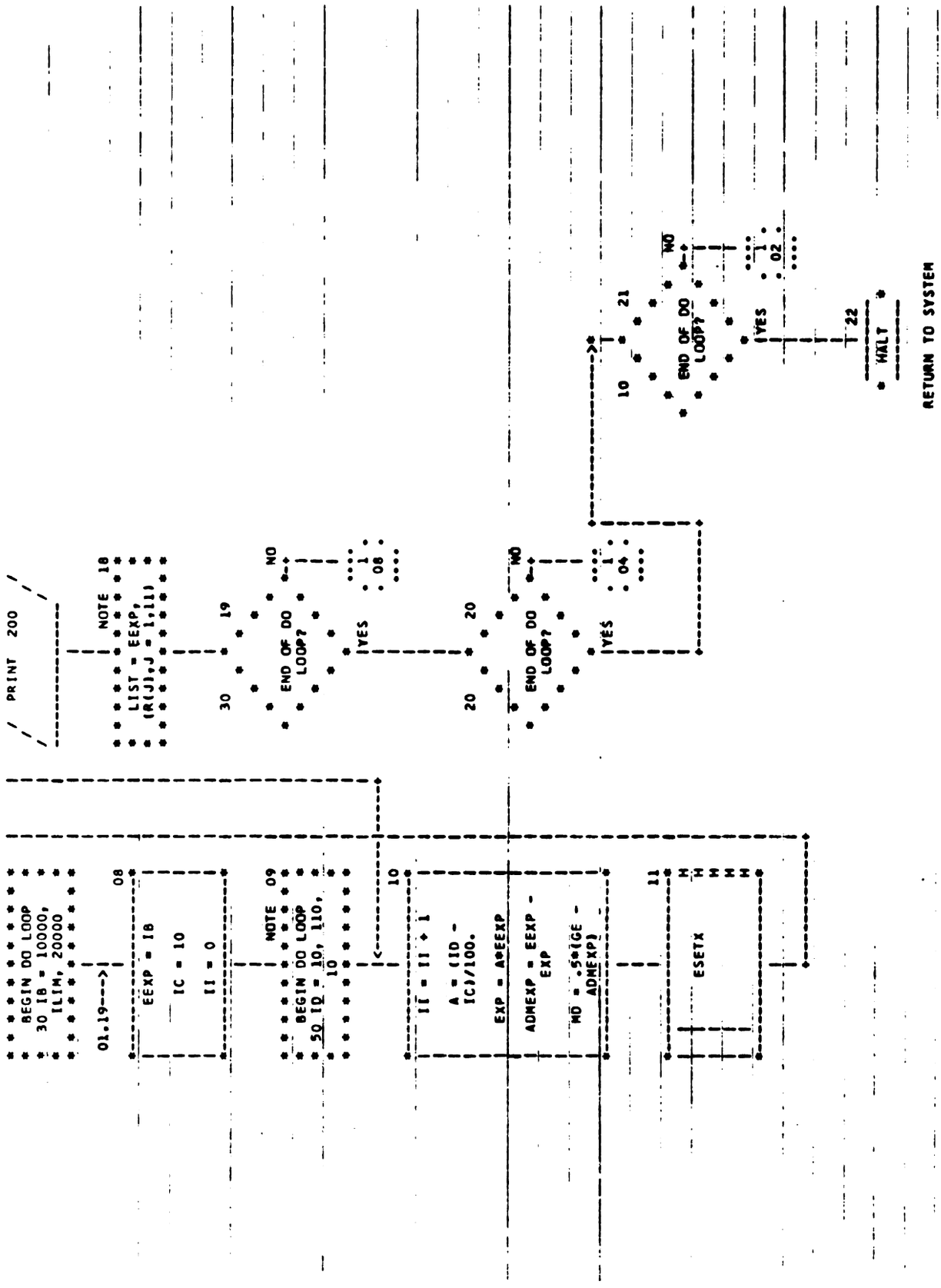
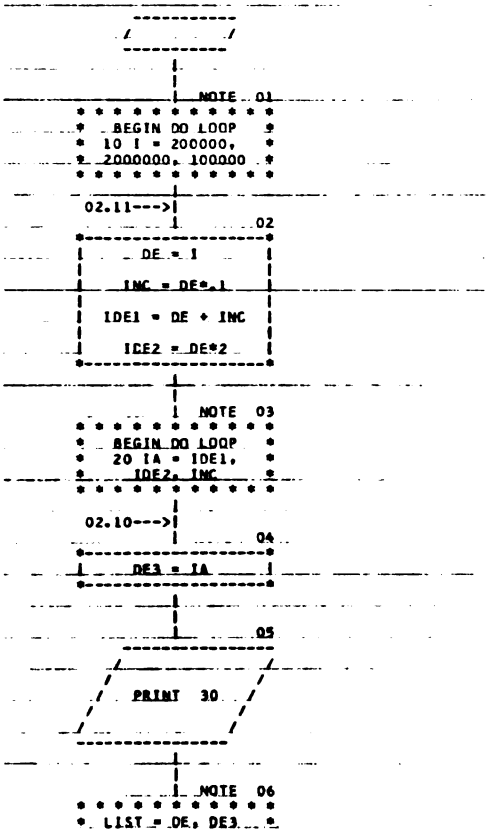
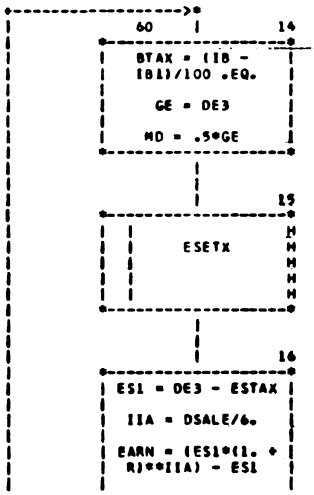

BEGIN DO LOOP
30 IB = 10000,
ILIM, 20000
01.19
08
EEXP = 18
IC = 10
II = 0
NOTE 09
BEGIN DO LOOP
50 IO = 10, 110,
10
10
II = II + 1
A = (IO -
IC)/100.
EXP = A*EEXP
11
ESETX
H
H
H
H
PRINT 200
NOTE 10
LIST = EEXP,
(R(J),J = 1,11)
30
19
END OF DO
LOOP?
NO
YES
1.
08
20
20
END OF DO
LOOP?
NO
YES
1.
04
ADMEXP = EEXP -
EXP
MD = .5*IGE -
ADMEXP)
10
21
END OF DO
LOOP?
NO
YES
1.
02
22
HALT
RETURN TO SYSTEM

CHART TITLE - NON-PROCEDURAL STATEMENTS

```
      REAL LOSS,MD
      INTEGER PRITRN,DATEPD,CONTEM
      DIMENSION R(11)
      COMMON /BLK1/GE,ADMEXP,DEBTS,LOSS,CHAR,MD,PRITRN,DATEPD,ZPTRAN,
      PRITE,PRITAX,CONTEM,ZGIFT,ZGIFTX,ZVGIFT,EXCL,ESTAX,TAXEST
  100 FORMAT('1',20X,'RUN 1',//,21X,'ESTATE VALUE',1X,I9,//,21X,'ESTATE
      REVENUE',1X,I8,//,'EXPENSES',20X,'PERCENT DEDUCTED FROM INCOME',/,
      17X,'0',11X,'10',8X,'20',9X,'30',10X,'40',8X,'50',9X,'60',9X,'70',
      9X,'80',9X,'90',9X,'100')
  200 FORMAT ('0',12(F10.0,1X))
```

CHART TITLE - PROCEDURES





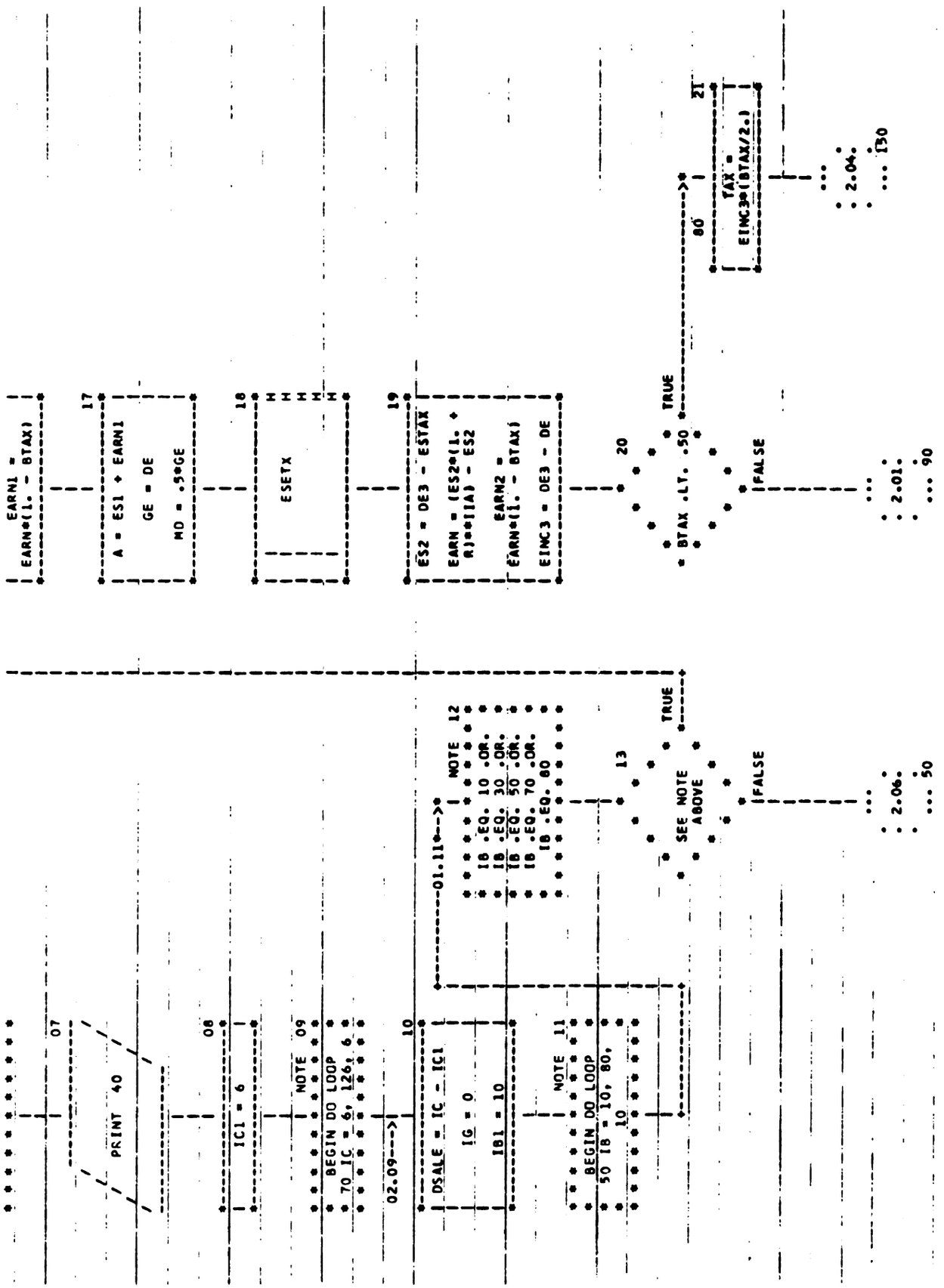
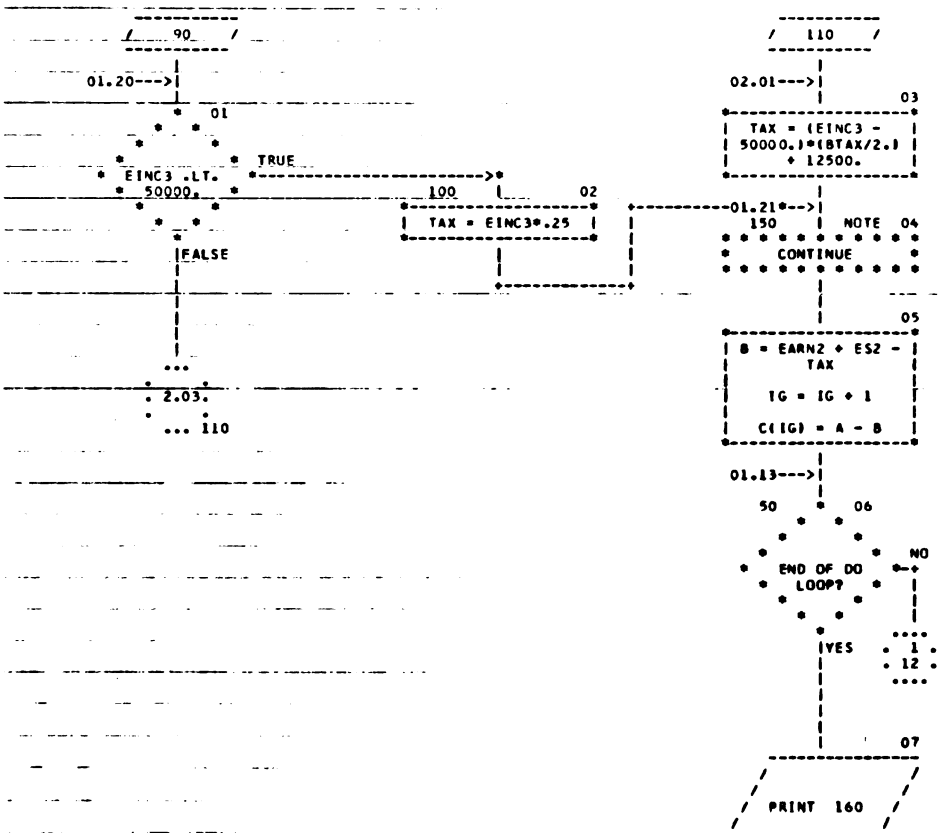

PRINT 40
07
08
IC1 = 6
NOTE 09
BEGIN DO LOOP
70 IC = 6, 126, 6
02.09--->
10
DSALE = IC - IC1
IG = 0
IB1 = 10
NOTE 11
BEGIN DO LOOP
50 IB = 10, 80,
10
01.11--->
NOTE 12
IB .EQ. 10 .OR.
IB .EQ. 30 .OR.
IB .EQ. 50 .OR.
IB .EQ. 70 .OR.
IB .EQ. 80
SEE NOTE ABOVE
13
TRUE
FALSE
2.06.
50
EARN1 =
EARN*(1. - BTAX)
17
A = ES1 + EARN1
GE = DE
MD = .5*GE
18
ESETX
19
ES2 = DE3 - ESTAX
EARN = (ES2*(1. +
A)**(A) - ES2
EARN2 =
EARN*(1. - BTAX)
EINC3 = DE3 - DE
20
BTAX .LT. .50
TRUE
FALSE
80
21
TAX =
EINC3*(BTAX/2.)
2.01.
90
2.04.
130

CHART TITLE - PROCEDURES



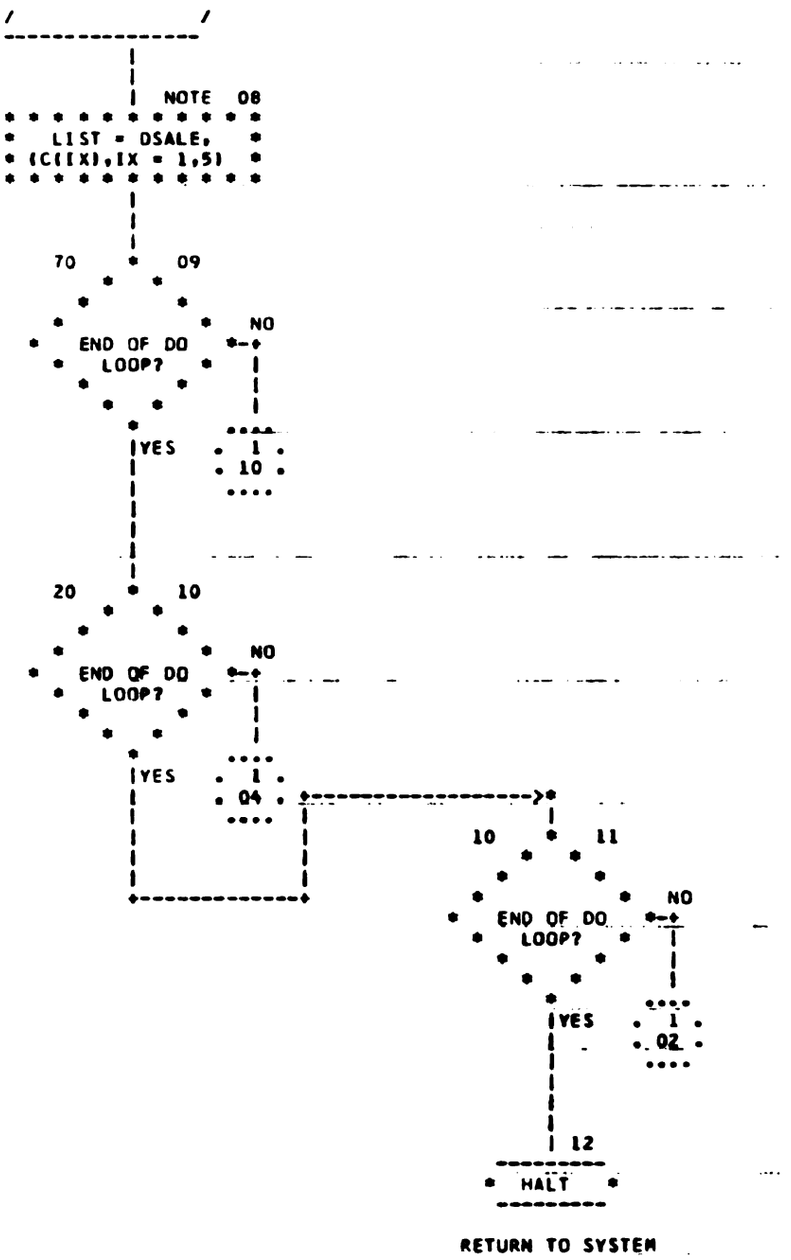
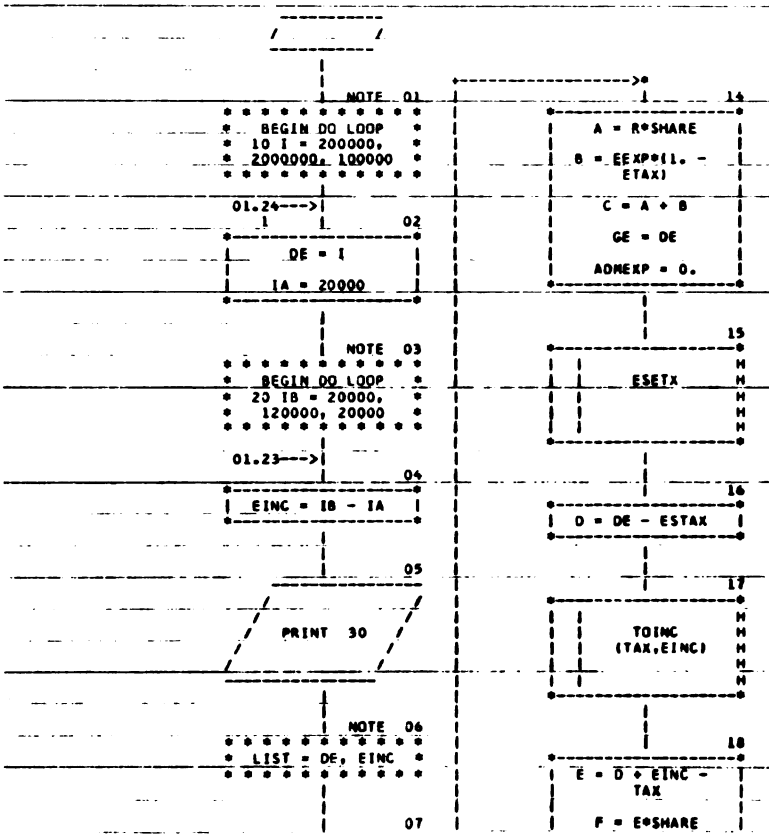

NOTE 08
LIST = DSALE,
(C(IX),IX = 1,5)
70
09
END OF DO LOOP?
NO
YES
1
10
20
10
END OF DO LOOP?
NO
YES
1
04
10
11
END OF DO LOOP?
NO
YES
1
02
12
HALT
RETURN TO SYSTEM

CHART TITLE - NON-PROCEDURAL STATEMENTS

```
      REAL LOSS,MD
      INTEGER PRITRN,DATEPD,CONTEM
      DIMENSION C(5)
      COMMON /BLK1/GE,ADMEXP,DEBTS,LOSS,CHAR,MD,PRITRN,DATEPD,ZPTR,N,
     PRITE,PRITAX,CONTEM,ZGIFT,ZGIFTX,ZVGIFT,EXCL,ESTAX,TAXEST
      DATA IND /'NO'/
      DATA IYES /'YES'/
      DATA R/.025/
   30 FORMAT('1',20X,'RUN NUMBER 1'/21X,'ESTATE VALUE AT DEATH',1X,F10.2
     /21X,'ALTERNATE VALUE',1X,F10.2)
   40 FORMAT('0',1X,'SALE DATE',30X,'INCOME TAX RATE'/25X,'0',20X,'20',
     18X,'40',17X,'60',20X,'70')
  160 FORMAT('0',F5.0,15X,(5(F11.2,10X)))
```

CHART TITLE - PROCEDURES



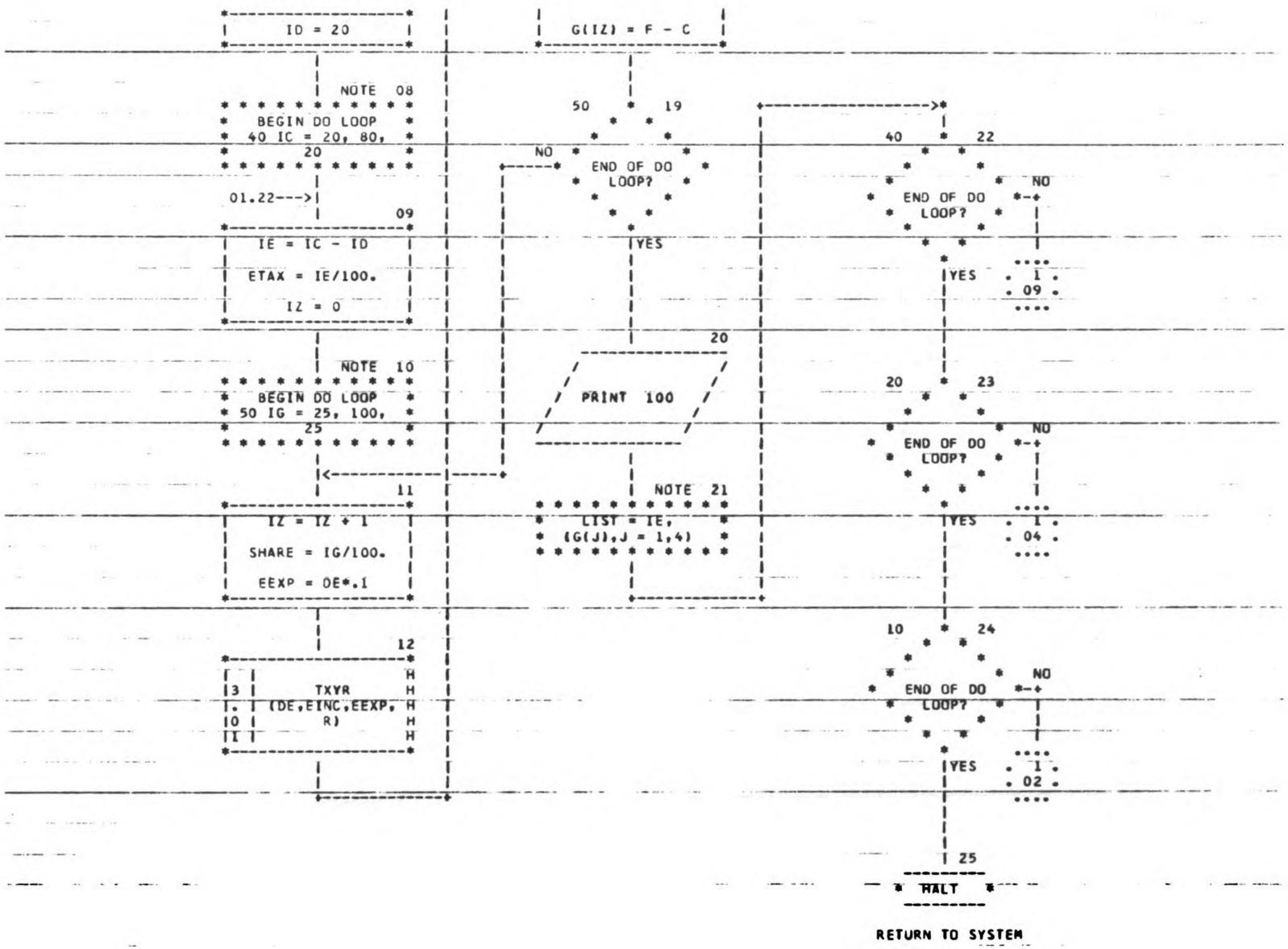
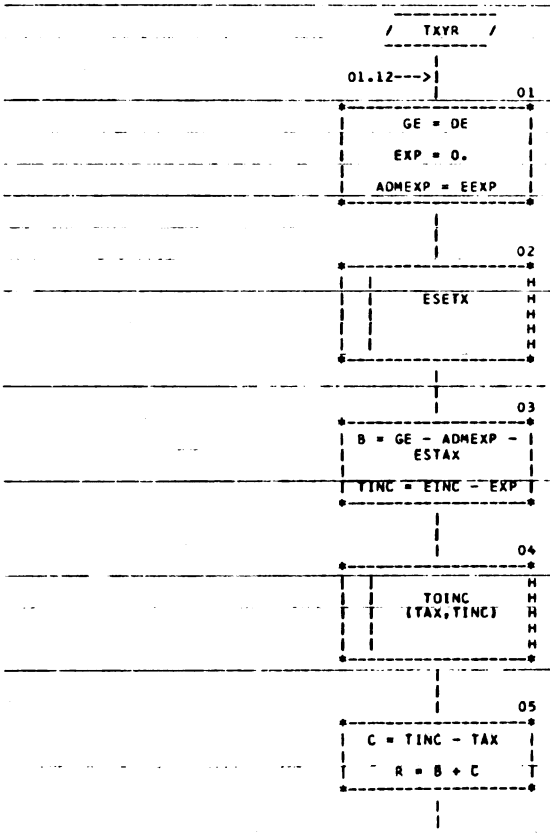
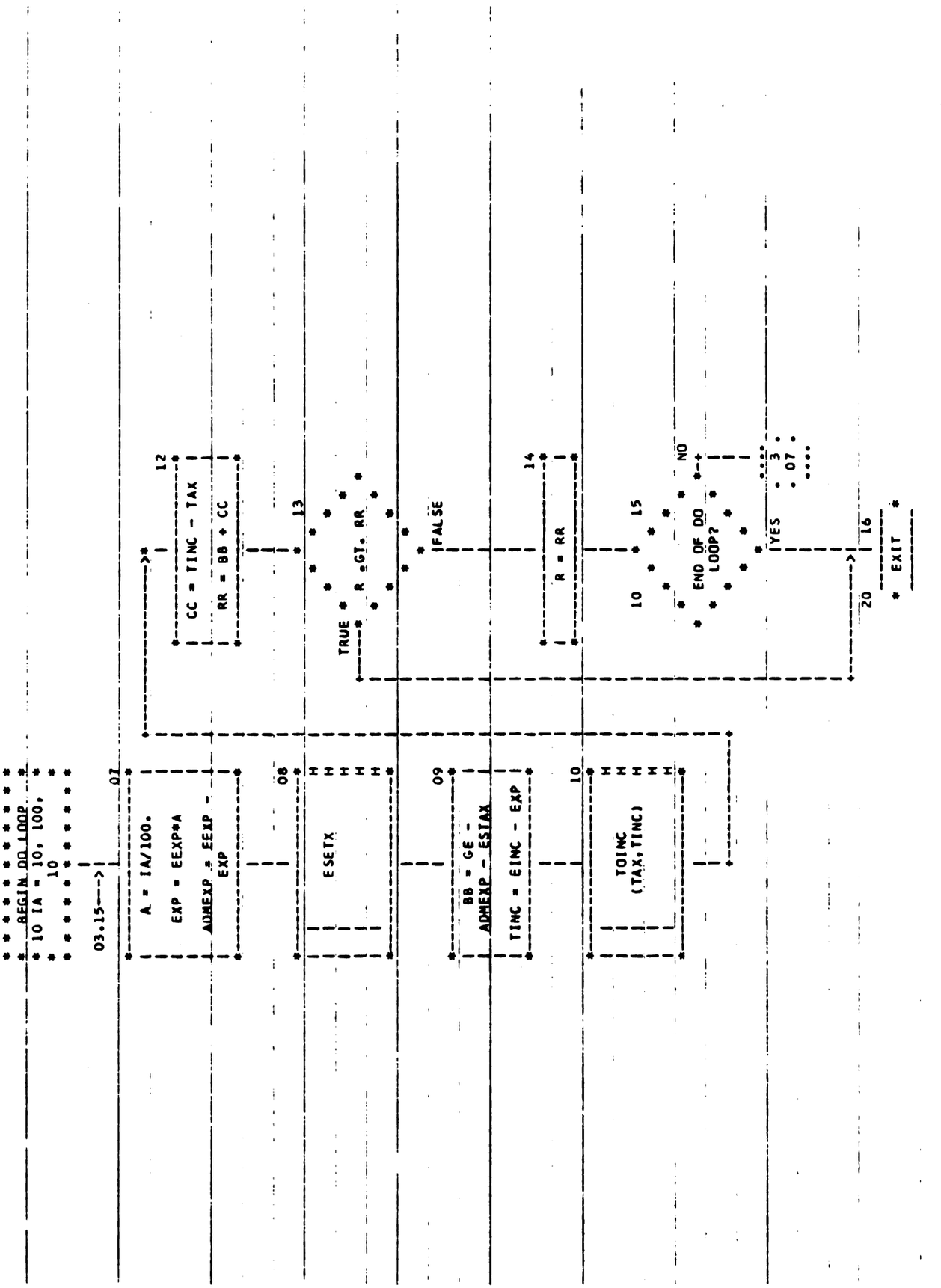

ID = 20
NOTE 08
BEGIN DO LOOP
40 IC = 20, 80,
20
01.22--->
09
IE = IC - ID
ETAX = IE/100.
IZ = 0
NOTE 10
BEGIN DO LOOP
50 IG = 25, 100,
25
11
IZ = IZ + 1
SHARE = IG/100.
EEXP = DE**.1
12
3
.
10
11
TXYR
(DE,EINC,EEXP,
R)
G(IZ) = F - C
50
19
NO
END OF DO
LOOP?
YES
20
PRINT 100
NOTE 21
LIST = IE,
(G(J),J = 1,4)
40
22
NO
END OF DO
LOOP?
YES
1
09
20
23
NO
END OF DO
LOOP?
YES
1
04
10
24
NO
END OF DO
LOOP?
YES
1
02
25
HALT
RETURN TO SYSTEM

CHART TITLE - NON-PROCEDURAL STATEMENTS

```
      REAL LOSS,MD
      INTEGER PRITRN,DATEPD,CONTEM
      DIMENSION G(4)
      COMMON /BLK1/GE,ADMEXP,DEBTS,LOSS,CHAR,MD,PRITRN,DATEPD,ZPTRAN,
     PRITE,PRITAX,CONTEM,ZGIFT,ZGIFTX,ZVGIFT,EXCL,ESTAX,TAXEST
   30 FORMAT('1',20X,'ESTATE VALUE',1X,F11.2//21X,'ESTATE INCOME',1X,
     F11.2//1X,'EXEC. TAX $',30X,'EXEC. SHARE'/30X,'25',12X,'50',12X,
     '75',12X,'100')
  100 FORMAT('0',3X,I4,18X,4(F10.2,4X))
```

CHART TITLE - SUBROUTINE TXYR(DE,EINC,EEXP,R)




NOTE 06
BEGIN DO LOOP
10 IA = 10, 100,
10
03.15
07
A = IA/100.
EXP = EEXP*A
ADMEXP = EEXP -
EXP
08
ESETX
09
BB = GE -
ADMEXP - ESTAX
TINC = EINC - EXP
10
TOINC
(TAX,TINC)
12
CC = TINC - TAX
RR = BB + CC
13
TRUE
R .GT. RR
FALSE
14
R = RR
10
15
END OF DO
LOOP?
NO
YES
3
07
16
20
EXIT

BIBLIOGRAPHY

Brosterman, Robert. The Complete Estate Planning Guide for Business and Professional Men and Women and Their Advisors. New York: McGraw-Hill, 1964, Chapter 12.

Bush, Julian S. "Who Needs a Revocable Trust?" Trusts and Estates. January, 1967, pp. 17-22, 73-4.

Cohen, Charles A. "The Estate Tax Marital Deduction - Revenue Procedure 64-19," Indiana Law Journal. Summer, 1966, pp. 711-24.

Corbin, Edwin H. "Living Trusts in Action," Trusts and Estates. July, 1967, pp. 625-9.

Doyle, Stanley B., Jr. "Estate Settlement - An Executor's 40 Steps," Trusts and Estates. May, 1966, pp. 419-425.

Edwards, Mark B. "Marital Deduction Formulae -- A Planner's Guide," The Tax Counselor's Quarterly. September, 1967, pp. 259-80.

Esterces, Howard M. "The Accountant's Part in Arranging His Client's Affairs to Get the Maximum Marital Deduction," Taxation for Accountants. May-June, 1967, pp. 116-119.

Eval, Irving. "'Hidden' Estate Tax-Saving Techniques Can be Found in Interplay of Tax Law," The Journal of Taxation. November, 1963, pp. 280-6.

Forbes, Dale. "Post-Death Tax Options," Montana Law Review. Fall, 1968, pp. 19-34.

Freilicher, Morton. Estate Planning Handbook -- With Forms. Englewood Cliff, N.J.: Prentice-Hall, 1970, Chapter 10.

Gaa, Charles J. "Some Important Considerations in Estate Planning," Aspects of Contemporary Accounting. University of Florida, 1966, pp. 45-83.

Gilbert, Arch B. "Post-Mortem Estate Planning," Oklahoma Law Review. February, 1968, pp. 1-21.

Halstead, Harry M. and Baker, Sheldon S. "Post Mortem Estate Planning -- Federal Tax Considerations," American Bar Association Journal. June, 1963, pp. 599-602.

Heckerling, Philip E. "Post-Mortem Double Deductions," The Tax Advisor. December, 1970, pp. 763-6.

Hess, Robert P. "Planning a Lifetime Gift Program to Minimize Income Tax and Estate Tax," Taxation for Accountants. June, 1971, pp. 331-34.

Hoffman, Lynal E. "Estates and Trusts-Tax Alternatives," The Oklahoma CPA. January, 1968, pp. 7-11.

Holzman, Robert S. Holzman on Estate Planning. Englewood Cliffs, N.J.: Prentice-Hall, 1967, Chapter 3.

Joraanstad, Sig O. "Planning Estate Distributions; Many Tax-Saving Opportunities Available," The Journal of Taxation. March, 1963, pp. 148-52.

Kalish, Richard H. and Kupfer, T. Milton. The Uses of Trusts in Estate Planning," The New York Certified Public Accountant. July, 1964, pp. 487-501.

Kessler, Joan. "'Specific Portion' Trusts and the Marital Deduction," Marquette Law Review. Fall, 1967, pp. 171-181.

Levenfeld, Milton A. "Postdeath Planning under Section 303," American Bar Association Journal. May, 1965, pp. 495-7.

Lewis, Robert A. "The Marital Deduction, The Credit for Tax on Prior Transfers and Their Interrelationship -- Post-Death Action to Coordinate Their Use," Taxes -- The Tax Magazine, April, 1964, pp. 487-501.

Miller, Byron S. "Income Tax Planning for the Post-Mortem Period," Taxes - The Tax Magazine. December, 1965, pp. 813-20.

Paffendorf, Carl G. "The Computer in Estate Planning -- Use of Electronic Systems and Equipment," Trusts and Estates. September, 1966, pp. 855-6.

Parr, Robert A. "Distributions by Estates -- A Review of the Tax Consequences," Trusts and Estates. February, 1968, pp. 97-102, 123-26.

Polasky, Alan N. "Marital Deduction Formula Clauses in Estate and Income Tax Considerations," Michigan Law Review. March, 1965, pp. 8 - 9-890.

Rhoads, Reid M. "The Revocable Trust: A Useful Estate Planning Tool," The Journal of Accountancy. November, 1968, pp. 87-9.

Sargent, Paul B. "A.B.C. and D. of Marital Deduction," The Tax Counselor's Quarterly. June, 1963, pp. 178-82.

Seid, Gerald P. "Elections an Executor May Make When Filing Returns to Minimize Taxation of an Estate," Taxation for Accountants. May-June, 1968, pp. 104-6.

Simonetti, Gilbert Jr. "Last Minute 1970 Tax Legislation," The Journal of Accountancy. March, 1971, pp. 73-76.

Smith, Henry C. "Frequently Overlooked Pitfalls and Opportunities in Estate Planning," The Practical Lawyer. April, 1967, pp. 45-6, 55-60.

Sprouse, Robert T. and Moonitz, Maurice. "A Tentative Set of Broad Accounting Principles for Business Enterprises," Accounting Research Study #3. New York: American Institute of Certified Public Accountants, 1962, Chapter 4.

Stevens, William K. "How Post-Mortem Estate Planning Can Reduce Income and Estate Taxes," The Journal of Taxation. November, 1964, pp. 288-93.

Stone, Herbert L. A Stochastic Dynamic Programming Model for an Estate Planning Decision Process. Dissertation at University of Southern California, August 1965.

Wong, Henry G. "Tax Planning Considerations Suggested by the Use of the Widow's Allowance," Journal of Taxation. July, 1971, pp. 26-27.

Yohlin, Harry. "Developing an Effective Gift Tax Program to Save Taxes," The Practical Lawyer. May, 1967, pp. 45-48.

Yohlin, Harry. "Planning an Effective Gift Program: How to Give and to Whom," The Journal of Taxation. July, 1966, pp. 14-19.