**Title:** GRAPHICAL USER INTERFACE FOR DISPLAYING OPTIONS FOR FUNDING AN ESTATE TAX LIABILITY

In a computer-related apparatus that includes a programmable controller (102), input device (104) and display device (106), a graphical user interface displayed on the device display provides a computational illustration of a present value cost analysis of different funding alternatives including life insurance to meet an estate tax liability upon the death of the insured. The analysis allows a potential purchaser/client to select a number of investment options that can be displayed and to compare the selected investment options with a life insurance benefit amount on the basis of the present value.
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BACKGROUND OF THE INVENTION

The present invention disclosed herein relates generally to graphical user interfaces (GUIs). More particularly, the present invention relates to a method and apparatus for presenting a graphical user interface to enter client information on the needs of life insurance proceeds and other investment options and to display the results of the computational analysis on the basis of the entered information.

More and more individuals are encountering the problem of funding an expected estate tax liability. As “baby boomers” with accumulated life savings and other assets become older, the number of families with sizable estates (high net worth individuals) increases proportionately. They grapple with the dilemma of how to fund an expected estate tax liability, occurring upon death of an estate owner, when the estate assets are or may be illiquid. Typically, such assets are tied up in family businesses or other private investments. An important part of their estate planning, therefore, is to provide liquidity to pay for estate taxes.

Generally, the families may need to consider several alternative solutions for funding estate taxes. To make an informed decision, potential clients have to be presented with each alternative solution in an easy-to-understand manner. Furthermore, the analysis of the
alternatives for funding an estate tax liability should be based on some common criterion to obtain an "apples to apples" comparison. Such user-friendly comparison of estate tax funding alternatives is currently lacking in the industry.

A need therefore exists for an apparatus and method that meet the above need in the industry.

BRIEF SUMMARY OF THE INVENTION

It is an object of the present invention to solve the deficiencies described above in existing estate planning tools.

It is another object of the present invention to provide a computational illustration of life insurance and other investment options to meet an estate tax liability.

It is another object of the present invention to provide the computational illustration for comparing, on the basis of cost in today's dollars, the life insurance and other investment options to meet an estate tax liability.

It is still another object of the present invention to provide the computational illustration for comparing, on the basis of cost-per-dollar in today's dollars, the life insurance and other investment options to meet an estate tax liability.

The above and other objects are achieved by a method implemented by a computer for displaying and comparing a plurality of options for funding a person's estimated future estate tax liability to be incurred at a future date. The method includes the steps of setting a benefit amount produced by a life insurance policy and by a plurality of other investment options based upon the estimated future estate tax liability, calculating a first cost-at-death amount of the benefit amount for the life insurance policy and a second cost-at-death amount of the benefit amount for each of the other investment options at the person's death at the future date, and calculating a first
present value of the first cost-at-death amount and a second present value of each of the second
cost-at-death amounts using a discount rate. The first and second present values are then
displayed to thereby provide an illustration of a comparison in current date dollars between the
life insurance and the other investment options.

In some embodiments, the method includes further steps of calculating a first cost-per-
dollar-at-death amount for the life insurance policy by dividing the first cost-at-death amount by
the benefit amount and calculating a second cost-per-dollar-at-death amount for each of the other
investment options by dividing each second cost-at-death amount by the benefit amount. The
first and second cost-per-dollar-at-death amounts are also displayed.

In additional embodiments, the method includes further steps of calculating a first
present-cost-per-dollar amount for the life insurance policy by dividing the first present value by
the benefit amount and calculating a second present-cost-per-dollar amount for each of the other
investment options by dividing each second present value by the benefit amount. The first and
second present-cost-per-dollar amounts and also displayed.

The above and other objects are also achieved by a computer-related apparatus including
a graphical user interface for displaying a present value of a plurality of investment options
including life insurance for meeting an estate tax liability upon an insured person’s death. The
computer-related apparatus comprises an input device for entering a benefit amount produced
separately by the life insurance and by another investment option for paying a predetermined
estate tax.

The computer-related apparatus further includes a programmable controller and first
program code means being executed by the programmable controller for calculating a first cost-
at-death amount of the benefit amount for the life insurance and for calculating a second cost-at-
death amount of the benefit amount for the other investment option at the insured person's death at a preselected future date. The computer-related apparatus further includes second program code means being executed by the programmable controller for calculating a first present value of the first cost-at-death amount and for calculating a second present value of the second cost-at-death amount using a preselected discount rate.

In addition, the computer-related apparatus includes a display device for displaying the first and second present values and for providing a computational illustration of a comparison in today's dollars between the life insurance and the other investment option.

In accordance with one aspect of the present invention, the computer-related apparatus further comprises third program code means being executed by the programmable controller for calculating a cost-per-dollar-at-death amount for the life insurance by dividing the first cost-at-death amount by the benefit amount, and for calculating a cost-per-dollar-at-death amount for the other investment option by dividing the second cost-at-death amount by the benefit amount.

In accordance with another aspect of the present invention, the computer-related apparatus further comprises fourth program code means being executed by the programmable controller for calculating a first present-cost-per-dollar amount for the life insurance by dividing the first present value by the benefit amount, and for calculating a second present-cost-per-dollar amount for the other investment option by dividing the second present value by the benefit amount.

BRIEF DESCRIPTION OF THE DRAWINGS

The present invention is illustrated in the figures of the accompanying drawings which are meant to be exemplary and not limiting, in which like reference characters are intended to refer to like or corresponding parts, and in which:
Fig. 1 is a block diagram of computer-related apparatus for providing a computational illustration of a comparison between life insurance and various tax funding alternatives in accordance with the invention;

Fig. 2 shows a block diagram of a display device displaying life insurance and other investment options arranged in a table for illustrating the comparison between different ways of funding an estate tax payment;

Fig. 3 shows a block diagram of the display device displaying a bar graph chart of an analysis of the life insurance and other funding alternatives for paying the estate tax;

Fig. 4 is a flowchart of functions according to this invention; and

Fig. 5 is a block diagram of a storage medium containing program code in accordance with the invention.

**DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS**

As a general overview, this invention provides an analysis and display of a present value cost of life insurance versus a present value cost of other investment options. The analysis uses the information supplied by a client with respect to each investment option. On the basis of the analysis, alternatives are displayed to the client for funding estate tax upon death of the owner of the estate. The present value cost analysis of estate tax funding alternatives graphically illustrates the relative present value cost of paying a specific amount of estate tax when the insured dies using a life insurance policy in comparison with other funding alternatives that may be used to pay estate taxes.

Fig. 1 shows an apparatus for providing a computational illustration of a comparison between life insurance and various tax funding alternatives in accordance with the invention. A general-purpose computer 100 contains a programmable controller 102 for executing instructions
to cause various images, text, etc., to be displayed on a display device 106. The display of
images, text, etc., is in response to manipulation of an input device 104, such as a mouse,
keyboard, light pen, etc., by a client or user. The programmable controller 102 also is operative
to execute a program stored in a storage medium 108 for calculating amounts (values) for use in
the computational illustration as described hereinbelow.

In particular, the client supplies information pertaining to various estate tax funding
alternatives. This information is input into the computer 100 via the input device 104 via, for
example, a number of questions displayed on the display device 106. The following information
may be provided by the client: age, gender, whether the client smokes, an approximate present
value of the estate, and an assumed interest or discount rate. This information is then entered
into the computer 100 via the input device 104. Based on this information, the projected value of
this estate in the future is calculated.

For example, in one example a given client or estate holder is a 70-year old, non-smoking
male. The life expectancy (LE) of this client is determined to be 88 years using standard
mortality tables stored in storage medium 108 and related actuarial methods known to those of
skill in the art. The projected value of the estate in 18 (88-70) years is calculated on the basis of
the provided information. The projected value of the estate is based on a 4% annual interest rate,
which is, of course, modifiable by the client or agent.

After calculating the projected value of the estate, an estimated amount for meeting an
estate tax liability is determined when the client (estate holder) reaches a predetermined age of 88
in accordance with the above example. In this particular embodiment of this invention, an
estimated estate tax funding is $2,290,022 that is necessary to cover the estate tax in 18 years
from today's date. The amount of the estate tax is calculated by applying applicable tax rates to
the calculated projected value of the estate.

In the alternative to calculating the projected value of the estate and the automatic setting
of the life expectancy, the following information may be entered into the computer via the input
device 104: expected mortality age or life expectancy and the amount of estate tax funding
needed at death (life expectancy). As a further alternative, the client or agent may simply input a
desired benefit amount for the life insurance policy, e.g., $1,000,000, which may or may not
relate to an actual or estimated estate tax liability. This benefit amount is then set as the benefit
amounts for the other investment options.

Once the estate tax funding amount is either determined or entered as described
hereinabove, various investment options to pay the estate tax are offered to the client to enable
him to secure that amount by the life expectancy age of 88. The investment options illustrated
on the display device 106 include cash, asset liquidation, bank loan, IRC sections 303, IRC
section 6165, and life insurance. With respect to each investment option, additional information
is obtained either from the client or entered by the user of the computer-related apparatus in the
following manner.

With respect to the asset liquidation option, a percent reduction to liquidate the client’s
assets is entered into the computer 100. With respect to the bank loan option, an interest rate and
loan period over which periodic installments will be made to repay the loan are obtained from the
client and entered into the computer 100. With respect to the IRC Section 6166, an eligibility for
that provision is determined and entered into the computer 100. With respect to the life
insurance, annual premiums are ascertained and entered by the user into the computer 100.
Once the above information is received, the computer 100 calculates the present value (cost in today’s dollars) of each investment option. Following the calculations, the computer 100 executes instructions to cause the investment options to be displayed on the display device 106. The investment options are arranged in a table for illustrating the comparison between different ways of funding the estate tax payment in an easy-to-understand manner as shown in Fig. 2.

Prior to the detailed description of Fig. 2, it will be helpful to explain the following concept employed in the analysis of various investment options.

Present value (cost in today’s dollars): a present value cost computation evaluates the relative cost of funding alternatives that involve financial transactions occurring at different times. For example, the premiums on an insurance policy begin immediately and are payable until the insured dies, while an IRC Section 6166 transaction requires no current expenditure of funds, but will require outlays for interest and loan repayments for a period of time after death. This system uses the present value analysis to compare the life insurance premiums and life insurance benefits to other methods of providing a lump sum at a future date to pay estate taxes.

Present value analysis allows the client to assess the potential costs of different funding alternatives based on a common reference point.

There may be two ways to define “present value.” First, present value shows how much a future sum of money would be worth if it could somehow be received in the present, reduced by a “discount rate.” Second, present value shows how much cash needs to be set aside today at a specified interest rate to equal a specific amount in the future. Once again, it is noted that the terms “present value” and “cost in today’s dollars” are used interchangeably throughout this document.
An example of the first definition of the present value is as follows. An individual has the guaranteed right to receive $100,000 in 20 years, but needs cash today. He finds a second party willing to pay a reduced amount today for the right to receive $100,000 in twenty years. How much should the other person pay? Present value analysis indicates that at a 4% discount rate, the present value of $100,000 to be received twenty years from now is $47,464.24.

An example of the second definition of the present value is as follows. If an individual set aside $47,464.24 in an account that grew by exactly 4% per year, the value of the account would grow to $100,000 in twenty years.

Referring to Fig. 2, the display device 106 shows a table 200 for illustrating the comparison between the estate tax funding alternatives on the basis of the common reference point: Cost in Today's Dollars. The non-insurance funding alternatives are based on the assumption that estate tax obligations are exactly equal to the death benefit of the policy -- the benefit amount -- at specified future ages. In this example as stated above, the benefit amount is $2,290,022. The system evaluates the various funding alternatives at life expectancy (88 years in this example) and 7 years later.

A column 202 shows entries for the two investment options: cash and IRC Section 303. Under the cash option, it is assumed that there are enough liquid assets available in the estate at the time of death to pay the estate taxes. It is further assumed that there is no cost to liquidate these assets.

Under the IRC Section 303 Stock Redemption Plan option, it is assumed that stock worth an amount equal to the benefit amount will be available for sale to pay estate taxes. It is further assumed that the deceased's estate would qualify under the IRC Section 303 Stock Redemption rules applicable at that time. In this arrangement, the stock in the corporation is redeemed by the
corporation in an amount equal to the estate tax on the business value. This may be beneficial for a major stockholder who has not provided enough liquidity in his estate to cover final expenses and administrative costs, including estate taxes. The sale of this portion of stock is treated as an exchange, and the gain is not subject to income tax.

In a column 204, the asset liquidation alternative is illustrated. It is assumed that the estate has no liquid assets, and therefore a reduction is applied to liquidate estate assets. In this example, a 30% liquidation rate is used. This would cause the estate to have to liquidate a larger amount of assets to net the desired amount equal to the benefit amount. The asset liquidation is based on the reality that it is often difficult to get full market value for illiquid assets when they must be sold quickly. In addition, many assets have substantial transfer costs that reduce the net amount available.

A column 206 shows the bank loan option for funding the estate tax. It is assumed that an amount equal to the benefit amount is borrowed in the year of the insured's death to pay estate taxes. In this example, the repayment of principal and interest at 12% is made over a 10-year period, and the interest is not tax deductible.

In a column 208, another funding option is displayed: IRC Section 6166 Tax Deferral Plan. This alternative requires that, where an ownership interest in a business is included in a qualifying estate, estate taxes may be paid in installments, with interest being charged by the IRS under terms that may be more favorable than commercial loans. The client or agent sets an option indicating that the client owns a business, and the computer includes this option in the illustration.

It is assumed that the illustrated benefit amount would equal the amount that qualifies for installment payments of estate taxes using the provisions of Section 6166 of the Internal Revenue
Code. It is noted that the Section 6166 deferral is only available on the amount of tax attributable to the estate tax value of the business. During the first four years after death, the estate is only required to make interest payments. Starting in the fifth year both principal and interest payments are due annually, for a total deferral of 14 years. In this example, a 2% interest rate is charged on the tax due on the first million dollars of the taxable estate in excess of the applicable exclusion amount. The maximum amount of tax that could receive this 2% rate would be $435,000 in accordance with this example. The interest rate attributable to the amount above the tax on the first $1,000,000 is 45% of the rate applicable to the underpayment of the tax. The underpayment rate is 3% above the federal short-term rate and is published quarterly. The assumed underpayment of tax rate for this exemplary comparison is 7%.

A column 210 shows the life insurance option. A life insurance policy pays a life insurance benefit on the death of the insured named in the policy. Such estate tax funding alternative requires that premium payments be paid to purchase a life insurance benefit that will be paid upon the death of the insured. A primary use of the insurance policy is for the estate planning market, and the policy will appeal most likely to families with a significant taxable estate.

A row 220 in the table 200 indicates the benefit amount needed to pay the estate tax at the insured’s life expectancy age, e.g., 88 given the client information indicated above, and a number of years later input by the client or agent, e.g., seven years later (95). In order to avoid repeating the same analysis herein, entries in the table 200 pertaining to the life expectancy (“88” sub-columns) will be described. It is understood, of course, that entries pertaining to the life expectancy plus 7 years (“LE+7 Yrs:95” sub-columns) are similarly calculated and differ only in the dollar amounts from the entries in the “88” sub-columns.
As illustrated in Fig. 2, the benefit amount is the same for all funding alternatives since the illustration compares various funding alternatives for funding the estate tax liability. By setting the condition of having the same benefit amount, the comparison between the funding alternatives becomes meaningful for the client.

A row 222 displays a cost-at-death amount for each funding alternative. For the cash or IRC section 303 alternative in the column 202, the cost-at-death amount is the same as the benefit amount. For the asset liquidation alternative in the column 204 of Fig. 2, the cost-at-death amount is greater than the benefit amount. Due to illiquidity of assets and other costs associated with a quick sale, a larger amount of assets has to be liquidated to net the desired amount as described hereinabove. The calculations are performed by the programmable controller 102 in the computer 100. In this example, the liquidation rate is 30%, and therefore the assets worth $3,271,460 would have to be sold off to obtain the benefit amount of $2,290,022.

For the bank loan alternative in the column 206, the cost-at-death amount is also larger than the benefit amount. In the example of Fig. 2 and based on the information provided, for example, by the client, the loan period is 10 years with an interest rate of 12%. To net the benefit amount of $2,290,022, the client’s annual payments would have to be $405,298, and the sum of loan payments would amount to $4,052,977. As calculated by the programmable controller 102, the cost of the bank loan at death is $3,287,327, which is the present value based on the assumed discount rate of 4% needed to meet those stream of payments.

Similar calculations pertaining to the cost-at-death amount are performed for the IRC Section 6166 in the column 208, assuming that the client qualifies for this section by virtue of having a business. In the example of Fig. 2, a 14-year loan and the federal funds underpayment
interest rate of 7% are assumed, and a different rate may be input. In this case, an annual loan payment for the first 4 years is $188,933 and for the next 10 years is $359,840. The sum of loan payments is $4,354,131, and the cost of the IRC Section 6166 loan at death is $3,180,659, which is the present value amount discounted at the assumed 4% discount rate needed to meet payment stream as calculated by the programmable controller 102.

For the life insurance alternative in the column 210 of Fig. 2, it is assumed that annual premium is $80,864.70, and the current rate of return is 8% with the net rate of return being 6.57%. As calculated by the programmable controller 102 and illustrated in Fig. 2, the sum of premium payments for 18 years is $1,455,565, and the cost-at-death amount is $2,156,761, which is the amount to which the annual premiums would have grown if invested at an interest rate equal to the assumed 4% discount rate.

Fig. 2 also shows a row 224 for illustrating cost-per-dollar at death. The numbers in this row are calculated by dividing the cost-at-death amount by the benefit amount and are useful for determining at a glance the cost of a funding alternative with respect to others. As illustrated in Fig. 2, a ratio greater than one indicates the cost-at-death amount being greater than the benefit amount. Conversely, a ratio less than one is indicative of the pecuniary advantage of such funding alternative over other investment options.

Further shown in Fig. 2 is a row 226 for displaying cost in today’s dollars (present value) for each funding alternative. This cost analysis assumes a 4% discount rate. The calculation are performed by the programmable controller 102 for each funding alternative as explained hereinabove with reference to the above definitions of cost in today’s dollars (present value). Namely, the cost of the cash or IRC section 303 alternative at death is $2,290,022; and the cost of any of these alternatives to pay for the estate tax in today’s dollars is $1,130,419. Fig. 2
illustrates the cost of the asset liquidation at death being $3,271,460; and the cost of this
alternative to fund the estate tax in today’s dollars is $1,614,885. As further shown in Fig. 2, the
cost of the bank loan at death is $3,287,327; and the cost of this funding alternative in today’s
dollars is $1,622,717. As also illustrated in Fig. 2, the cost of the IRC Section 6166 at death is
$3,180,659; and its cost in today’s dollars is $1,570,063. The last column 210 in Fig. 2 shows
the cost of the life insurance at death being $2,156,761; and the cost of this funding alternative in
today’s dollars is $1,064,638. The computational illustration of the cost in today’s dollars on
the display device 106 provides a common reference point among various funding alternatives as
mentioned hereinabove.

A row 228 in the table 200 lists the amounts indicative of cost-per-dollar in today’s
dollars. The programmable controller 102 calculates these amounts by dividing the cost in
today’s dollars by the benefit amount for each funding alternative. The resulting ratios provide a
simple-to-understand illustration of the advantages of one funding alternative over another.

For the purposes of the example in Fig. 2, it is assumed that the life insurance benefit is
not included in the estate, and the estate tax has not been applied to the other funding
alternatives.

Fig. 3 shows the display device 106 displaying a bar graph diagram 300 of the analysis of
the funding alternatives described hereinabove for paying the estate tax. A bar graph 302
represents the cost of each funding alternatives in today’s dollars with reference to Fig. 2. A bar
graph 304 represents the cost of each funding alternative at death (life expectancy (LE)). A bar
graph 306 represents the cost of each funding alternative at death plus 7 years (life expectancy
(LE) + 7 years), that is, when the insured dies at 95. And a bar graph 308 represents the sum of
payments for each funding alternative. The bar graph diagram 300 provides the client with a visual comparison between the various ways to fund the estate tax.

Fig. 4 is a flowchart of functions performed by the system described herein. In step 400, a client’s information is entered into the computer 100 via the input device 104. The controller 102 calculates the life expectancy age and later age based upon the client's information, step 402. Then, for each investment option including life insurance, the controller 102 calculates the illustration data for the death benefit for the life expectancy and later age, step 404. In step 406, the programmable controller 102 calculates the cost of each funding alternative at death (or at death plus a preselected number of years). In step 408, the cost-per-dollar of the funding alternative at death (or at death plus the preselected number of years) is calculated by the programmable controller 102. Further in step 410 of Fig. 4, the programmable controller 102 calculates the cost of the funding alternative in today’s dollars using a predetermined discount rate. Then, the cost-per-dollar amount of the funding alternative in today’s dollars is calculated by the programmable controller 102 in step 412.

It is then determined in step 414 whether the calculations for the last funding alternative have been performed. If so, results of the calculations are displayed on the display device 106 in step 414 in response to the instructions carried out by the computer 100. Otherwise, the operation goes back to step 404 for calculating the above-discussed numbers for another funding alternative.

Fig. 5 is a block diagram of the storage medium 108 containing program code. The storage medium 108 stores the program code for displaying a present value of investment options including life insurance for paying a predetermined estate tax upon an insured person’s death. The program code is executed by the programmable controller 102 located in computer-related
apparatus that also comprises the input device 104 for entering a benefit amount produced separately by the life insurance and by other investment option for paying the predetermined estate tax. The program code comprises code 502 being executed by the programmable controller 102 for calculating the cost-at-death amounts of the benefit amount for the life insurance and for the other investment option at the insured person’s death at a preselected future date. The program code also includes code 504 being executed by the programmable controller 102 for calculating present values of the cost-at-death amounts using a preselected discount rate, such that the display device 106 displays the present values and provides a computational illustration of a comparison in today’s dollars between the life insurance and the other investment option.

Also included in the program code is code 506 being executed by the programmable controller 102 for calculating cost-per-dollar-at-death amounts for the life insurance and for the other investment option by dividing the cost-at-death amounts by the benefit amount. Further, the program code includes code 508 being executed by the programmable controller 102 for calculating present-cost-per-dollar amounts for the life insurance and for the other investment options by dividing the present values by the benefit amount.

The system described herein provides important and meaningful cost information, in a form of graphical representation, which will be of values to families, especially with significant taxable estates (and the estate planning professionals who typically advise them) in helping them to analyze their estate tax funding alternatives. The system graphically presents the present value cost information about a subject that is difficult to analyze or understand other than by reference to specific numerical examples. As the result, clients or their advisors who use the present
system will have no difficulty in understanding and comparing various funding alternatives available to them.

According to the invention, the display device 106 displays several funding alternatives, all of which result in a specified lump sum corresponding to an estimated estate tax liability. A prospective purchaser (client) supplies information about such factors as the costs applied to the liquidation of assets, the amount of interest that would be paid on a bank loan, the number of years over which such a loan would be outstanding, etc. By allowing these factors to vary, this system provides personalized information, in a form of graphical representation, that helps individuals think in a logical way about their problems of how best to fund an expected estate tax liability.

While the invention has been described and illustrated in connection with preferred embodiments, many variations and modifications as will be evident to those skilled in this art may be made without departing from the spirit and scope of the invention, and the invention is thus not to be limited to the precise details of methodology or construction set forth above as such variations and modification are intended to be included within the scope of the invention.
WHAT IS CLAIMED IS:

1. A method implemented in a computer apparatus for displaying and comparing a plurality of options for funding a person's estimated future estate tax liability to be incurred at a future date, the method comprising:

   setting a benefit amount produced by a life insurance policy and by a plurality of other investment options;

   calculating a first cost-at-death amount of the benefit amount for the life insurance policy and a second cost-at-death amount of the benefit amount for each of the other investment options at the person's death at the future date;

   calculating a first present value of the first cost-at-death amount and a second present value of each of the second cost-at-death amounts using a discount rate; and

   displaying the first and second present values to thereby provide an illustration of a comparison in current date dollars between the life insurance and the other investment options.

2. The method according to claim 1, further comprising calculating a first cost-per-dollar-at-death amount for the life insurance policy by dividing the first cost-at-death amount by the benefit amount, calculating a second cost-per-dollar-at-death amount for each of the other investment options by dividing each second cost-at-death amount by the benefit amount, and displaying the first and second cost-per-dollar-at-death amounts.

3. The method according to claim 1, further comprising calculating a first present-cost-per-dollar amount for the life insurance policy by dividing the first present value by the benefit amount, calculating a second present-cost-per-dollar amount for each of the other investment options by dividing each second present value by the benefit amount, and displaying the first and second present-cost-per-dollar amounts.
4. The method according to claim 1, wherein the step of setting the benefit amount comprises setting the benefit amount as equal to the estimated future estate tax liability.

5. The method according to claim 4, wherein the step of setting the benefit amount comprises inputting an estimated value of the person's estate and computing the estimated future estate tax liability.

6. The method according to claim 1, wherein the step of setting the benefit amount comprises inputting the benefit amount of the life insurance policy and setting the benefit amounts of the other investment options as equal to the input life insurance policy benefit amount.

7. The method according to claim 1, wherein the other investment options are selected from the group consisting of asset liquidation, cash, Internal Revenue Code estate tax installment payment plan, and bank loan.

8. The method according to claim 1, wherein the benefit amount, the first and second cost-at-death amounts, and the first and second present values are displayed in a table which corresponds the life insurance policy and the other investment options.

9. The method according to claim 1, wherein the benefit amount, the first and second cost-at-death amounts, and the first and second present values are displayed in a bar graph chart which corresponds the life insurance policy and the other investment options.

10. The method according to claim 1, wherein at least one of the other investment options comprises asset liquidation, comprising inputting a percent reduction for the asset liquidation, and wherein the step of calculating the second cost-at-death amount for the asset liquidation comprises discounting the benefit amount by the asset liquidation percent reduction.
11. The method according to claim 1, wherein at least one of the other investment options comprises a bank loan, comprising inputting an interest rate and a loan period for the bank loan, and wherein the step of calculating the second cost-at-death amount for the bank loan comprises discounting the benefit amount by the interest rate over the loan period.

12. The method according to claim 1, comprising determining annual premiums with reference to the life insurance policy, and wherein the step of calculating the first cost-at-death amount comprises summing the annual premiums for a period between the current date and the future date.

13. Computer-related apparatus for displaying a present value of a plurality of investment options for funding an future estimated estate tax liability to be incurred upon a person’s death, the apparatus comprising:

   an input device for inputting information used in setting a benefit amount produced by a life insurance policy and by a plurality of other investment options;

   a programmable controller;

   a storage medium storing first program code means executable by the programmable controller for calculating a first cost-at-death amount of the benefit amount for the life insurance policy and for calculating a second cost-at-death amount of the benefit amount for each of the other investment options at a future date, the storage medium also storing second program code means executable by the programmable controller for calculating a first present value of the first cost-at-death amount and a second present value of each of the second cost-at-death amounts using a discount rate; and
a display device for displaying the first and second present values to thereby provide an illustration of a comparison in current date dollars between the life insurance policy and the other investment options.

14. The apparatus according to claim 13, wherein the storage medium stores third program code means executable by the programmable controller for calculating a first cost-per-dollar-at-death amount for the life insurance policy by dividing the first cost-at-death amount by the benefit amount and for calculating a second cost-per-dollar-at-death amount for each of the other investment options by dividing each of the second cost-at-death amounts by the benefit amount, and wherein the display device further displays the first and second cost-per-dollar-at-death amounts.

15. The apparatus according to claim 13, wherein the storage medium stores fourth program code means executable by the programmable controller for calculating a first present-cost-per-dollar amount for the life insurance by dividing the first present value by the benefit amount and for calculating a second present-cost-per-dollar amount for the other investment option by dividing the second present value by the benefit amount, and wherein the display device further displays the first and second present-cost-per-dollar amounts.

16. The apparatus according to claim 13, wherein the other investment options are selected from the group consisting of asset liquidation, cash, Internal Revenue Code estate tax installment payment plan, and bank loan.

17. A computer-readable storage medium for storing program code means for, when executed, causing a computer to perform a method for displaying a present value of a plurality of investment options including a life insurance policy for funding a future estimated estate tax liability to be incurred at a future date, the computer-related apparatus comprising an input
device for entering information for setting a benefit amount produced by a life insurance policy and by other investment options for paying the predetermined estate tax, the computer-related apparatus further comprising a display device, the method comprising:

setting a benefit amount produced by a life insurance policy and by a plurality of other investment options;

calculating a first cost-at-death amount of the benefit amount for the life insurance policy and a second cost-at-death amount of the benefit amount for each of the other investment options at the person's death at the future date;

calculating a first present value of the first cost-at-death amount and a second present value of each of the second cost-at-death amounts using a discount rate; and

displaying the first and second present values to thereby provide an illustration of a comparison in current date dollars between the life insurance and the other investment options.
Start

Input information

Calculate life expectancy and later age

Calculate illustration data for death benefit

Calculate a cost-at-death amount

Calculate a cost-per-dollar-at-death amount

Calculate a cost-in-today's-dollars amount using a discount rate

Calculate a cost-per-dollar-in-today's-dollars amount

Last funding alternative?

Yes

Display results for all funding alternatives

Stop
storage medium
108

- code for calculating a cost-of-death value of the benefit amount for life insurance and for other investment option 502
- code for calculating a cost-per-dollar-at-death value for life insurance and for other investment option 504
- code for calculating a present value of the cost-of-death value for life insurance and for other investment option 506
- code for calculating a present-cost-per-dollar value for life insurance and for other investment option 508
INTERNATIONAL SEARCH REPORT

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : G06F 17/60
US CL. : 705/36

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 705/36

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic database consulted during the international search (name of database and, where practicable, search terms used)

DIALOG, WEST, EAST
Search Terms: Life Insurance, graphical user interface, estate tax liability

C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
<thead>
<tr>
<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>US 4,722,055 A (ROBERTS et al) 26 January 1988; col 3, lines 1-11; Figure 1/11-30; Figure 2/31-40; Figure 3/41-52; col 3 lines 16-20; col 4 lines 9-14; col 4 line 51-col 5 line 12; col 5 lines 14-20; col 5 lines 8-16; col 5 lines 18-52; col 4 line 39-col 5 line 13; col 1 lines 11-16; col 1 lines 40-49; col 1 lines 40-57</td>
<td>1-12, 13-16</td>
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<tr>
<td>X, E</td>
<td>US 6,012,044 A (MAGGIONCALDA et al) 04 January 2000; col 3 lines 33-64; col 5 lines 12-38; col 14 lines 5-16; col 16 lines 57-col 17 line 27; Figure 1/105-120; Figure 2/202-225; Figure 3/360; Figure 8/805-830; Figure 11/110-1140; Figure 12a/12b.</td>
<td>17, 13-16</td>
</tr>
</tbody>
</table>

Further documents are listed in the continuation of Box C.

* Special categories of cited documents
"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier document published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is used to establish the publication date of another invention or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed

Date of the actual completion of the international search
13 JUNE 2000

Date of mailing of the international search report
12 JUL 2000

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