

Executive summary

This project is designed to help people who own and/or are considering certain investments to determine their projected tax liability on investment income, structure the timing and nature of their investments, and plan accordingly. Those who use this program have the option to compute their ordinary income if they choose, along with its tax liability, but they are not required to do so. The primary purpose of the program is investment planning designed to minimize tax liabilities whenever possible. The program is designed for individuals of all income levels who do not have a background in U.S. tax law. It is not designed for tax accountants/attorneys.

Implementation documentation

My solution for this project required extensive use of user forms. I designed the forms with the proper controls and then programmed the controls and my main sub procedure accordingly. I added new user forms along the way as needed.

From beginning to end, the steps I took were as follows:

- Brainstorming on paper—I often need to see things on paper before I know how to proceed further. Visualization almost always helps me understand things better. Writing down ideas, diagrams of potential user forms, and flowcharts, along with questions I had as my project progressed, proved vital to doing it effectively.
- Designing user forms—once I knew which direction I wanted to go, I was able to start designing my user forms
- Reviewing chapter 11 in the textbook—this was very helpful and allowed me to do a lot of the programming and design before getting help.
- Programming the user controls and the main sub procedure—this was where I spent the vast majority of my time. I tried my best to do everything I could on my own. I didn't just program the user forms followed by the main sub procedure, or vice versa. I found that I had to go back and forth frequently to make sure I knew what I was doing and that I wasn't being redundant.
- Figuring out where I was struggling and getting the help needed—despite the extensive coverage of user form design and programming in chapter 11, there were many things I encountered (as detailed in the next section below) that were not obvious or easy to do. I received valuable assistance throughout this project.

Discussion of learning and conceptual difficulties encountered

This project gave me extensive experience with designing and programming user forms, since the entire project is based on user input. I learned how to program command buttons in conjunction with the overall program. I knew that there was code that had to be written for the command buttons and for the main sub procedure as well, but before I did this project, I didn't really have a deep understanding of which code was supposed to go where. This project helped me understand this much better. I also learned how to design and program certain elements of the user form, such as labels that bring up message boxes when clicked, labels that are programmed to hold certain captions based on user input, and text boxes that become disabled when the proper criteria are satisfied. I also gained valuable learning experience with nested If statements, data validation, writing data to a worksheet, and control loops to prevent errors should the user leave certain entries blank.

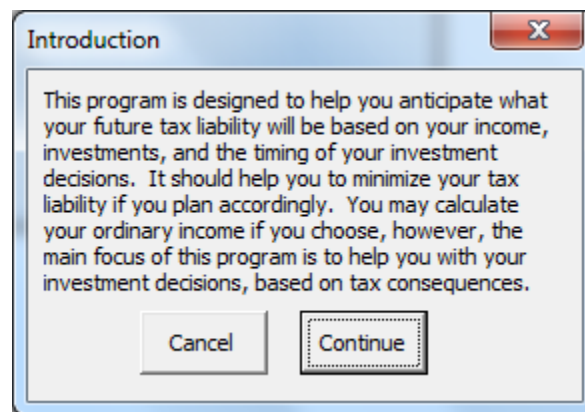
Assistance

I am so grateful for all the help I received on this project. Professor Allen and David Tate were both extremely helpful. I also received some help from my brother, Daniel, who has a lot of programming experience.

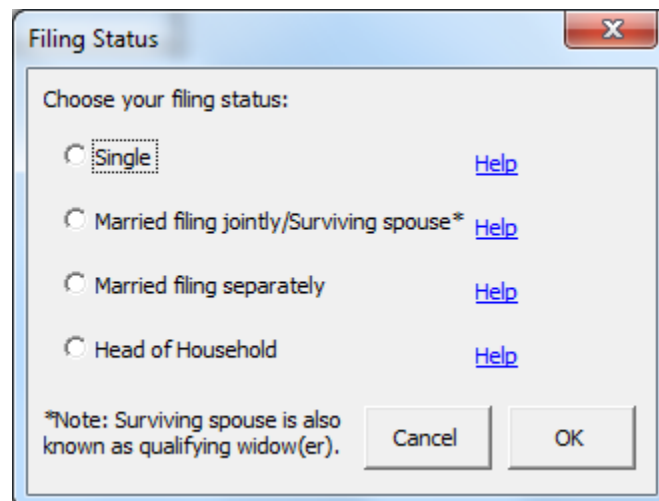
Write-up detail

This project is designed to help anyone who is interested in tax and investment planning, without requiring any knowledge of U.S. tax law. It is designed to facilitate tax planning by informing the user of the tax consequences of the timing and nature of common investments (certain types of investment income receive preferential tax treatment and some do not).

When the user runs the program, he/she will see an introduction window, explaining what to expect by going through the program:



After the user clicks continue, he/she will see a window that allows him/her to choose a filing status. If the user is unsure about what a particular filing status entails or who is allowed to elect it, he/she may click the "Help" link next to any of the options:



Depending on which filing status the user selects, he/she will see one of the following dialogs, which will ask the user to select which range he/she anticipates his/her taxable income will fall under. If the user is

unsure, or even if the user does know but would still like to calculate his/her exact taxable ordinary income, there is an option for calculating taxable income:

The image displays four separate dialog boxes, each titled "Ordinary Taxable Income--[Filing Status]", arranged in a 2x2 grid. Each dialog box contains a question "What is your ordinary taxable income range?", a "Calculate My Ordinary Income" button, a "What is ordinary income?" link, and a list of radio button options representing income ranges. The "Cancel" and "OK" buttons are located at the bottom right of each dialog.

- Ordinary Taxable Income--Single**
 - Question: What is your ordinary taxable income range?
 - Buttons: Calculate My Ordinary Income, What is ordinary income?
 - Options:
 - ☒ \$8,700 or less
 - ☐ > \$8,700 but NOT > \$35,350
 - ☐ > \$35,350 but NOT > \$85,650
 - ☐ > \$85,650 but NOT > \$178,650
 - ☐ > \$178,650 but NOT > \$388,350
 - ☐ > \$388,350
 - Buttons: Cancel, OK
- Ordinary Taxable Income--Married Filing Jointly or Surviving Spouse**
 - Question: What is your ordinary taxable income range?
 - Buttons: Calculate My Ordinary Income, What is ordinary income?
 - Options:
 - ☒ \$17,400 or less
 - ☐ > \$17,400 but NOT > \$70,700
 - ☐ > \$70,700 but NOT > \$142,700
 - ☐ > \$142,700 but NOT > \$217,450
 - ☐ > \$217,450 but NOT > \$388,350
 - ☐ > \$388,350
 - Buttons: Cancel, OK
- Ordinary Taxable Income--Married Filing Separately**
 - Question: What is your ordinary taxable income range?
 - Buttons: Calculate My Ordinary Income, What is ordinary income?
 - Options:
 - ☒ \$8,700 or less
 - ☐ > \$8,700 but NOT > \$35,350
 - ☐ > \$35,350 but NOT > \$71,350
 - ☐ > \$71,350 but NOT > \$108,725
 - ☐ > \$108,725 but NOT > \$194,175
 - ☐ > \$194,175
 - Buttons: Cancel, OK
- Ordinary Taxable Income--Head of Household**
 - Question: What is your ordinary taxable income range?
 - Buttons: Calculate My Ordinary Income, What is ordinary income?
 - Options:
 - ☒ \$12,400 or less
 - ☐ > \$12,400 but NOT > \$47,350
 - ☐ > \$47,350 but NOT > \$122,300
 - ☐ > \$122,300 but NOT > \$198,050
 - ☐ > \$198,050 but NOT > \$388,350
 - ☐ > \$388,350
 - Buttons: Cancel, OK

If the user is unclear what types of income are considered ordinary, clicking the blue link “What is ordinary income?” can provide a detailed definition of what is and is not included. If the user selects the button to calculate ordinary income, the following window will appear:

Calculation of Ordinary (Non-Investment) Income

Income from salaries, wages, tips, bonuses, and commissions:

Business income:

Short-term capital gain:

Interest:

Rents:

Royalties:

One-half self-employment tax:

Adjusted gross income:

Standard deduction*:

--OR--

Itemized deductions*:

Exemptions**:

Business expenses:

Ordinary taxable income:

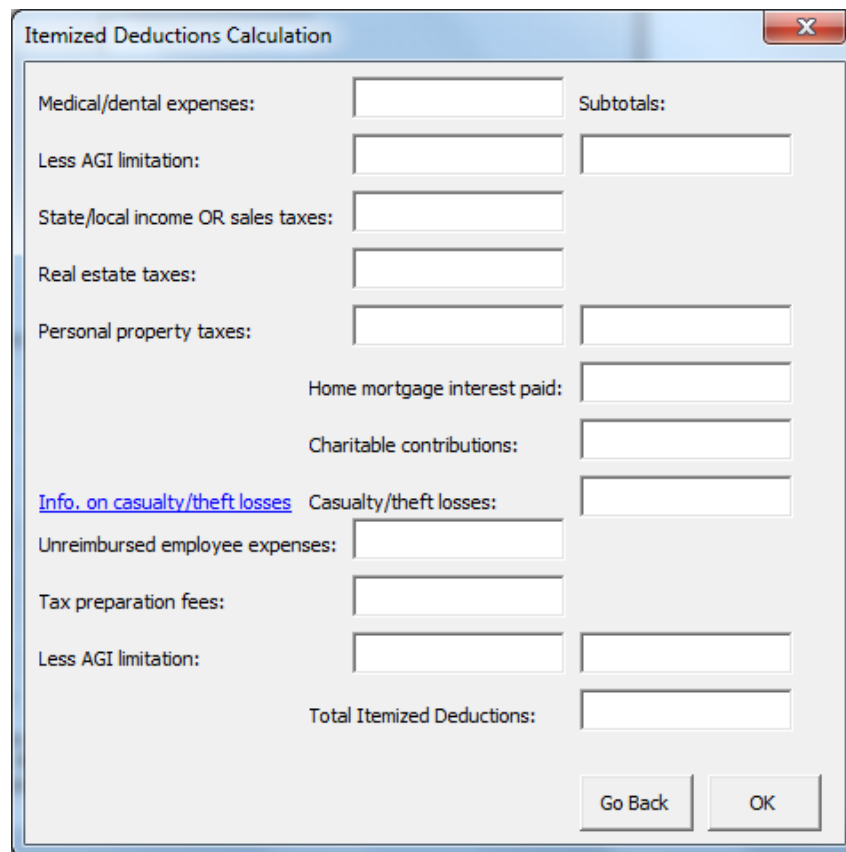
*Note: Each year you are allowed to take a standard deduction based on your filing status, or certain itemized deductions, whichever is greater.

For 2012, the standard deductions are as follows:

Single.....	\$5,950
Married Filing Jointly/Surviving Spouse...	\$11,900
Married Filing Separately.....	\$5,950
Head of Household.....	\$8,700

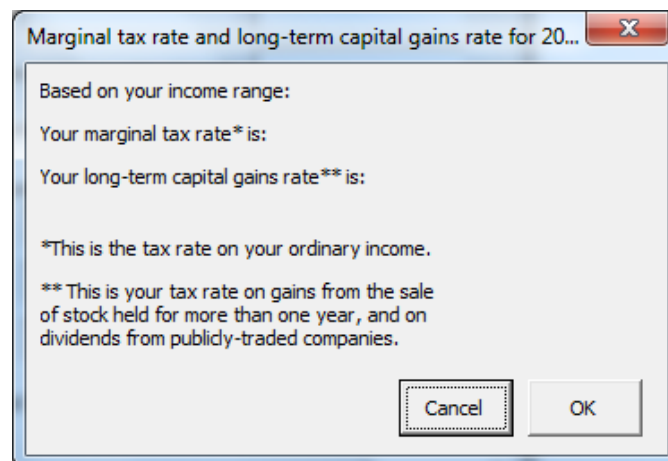
**Note: The exemption amount for 2012 is \$3,800 per individual. If you and your spouse file a joint return, you may claim a \$3,800 exemption for each of you and your children.

The user has the option of using a standard deduction provided by the IRS based on filing status, or he/she may calculate itemized deductions instead if itemized deductions would be higher than the standard deduction. The button for calculating itemized deductions brings up the following window:



The "Itemized Deductions Calculation" window is a dialog box with a title bar and a close button. It contains several input fields for calculating itemized deductions. The fields are arranged in two columns. The left column includes: "Medical/dental expenses:", "Less AGI limitation:", "State/local income OR sales taxes:", "Real estate taxes:", "Personal property taxes:", "Home mortgage interest paid:", "Charitable contributions:", "Info. on casualty/theft losses" (a blue hyperlink), "Casualty/theft losses:", "Unreimbursed employee expenses:", "Tax preparation fees:", and "Less AGI limitation:". The right column includes: "Subtotals:", and "Total Itemized Deductions:". At the bottom right, there are two buttons: "Go Back" and "OK".

When computed, the total itemized deductions are included as a deduction from ordinary income in the previous window in lieu of the standard deduction. After the user clicks "OK" upon completing the necessary information for ordinary income, he/she will see a window informing him/her of the marginal tax rate for ordinary income and the preferred rate for long-term capital gains, dividends, and any other income that is treated as a long-term capital gain:



The "Marginal tax rate and long-term capital gains rate for 20..." window is a dialog box with a title bar and a close button. It contains text indicating the user's income range and the resulting tax rates. The text includes: "Based on your income range:", "Your marginal tax rate* is:", "Your long-term capital gains rate** is:", "*This is the tax rate on your ordinary income.", and "** This is your tax rate on gains from the sale of stock held for more than one year, and on dividends from publicly-traded companies." At the bottom right, there are two buttons: "Cancel" and "OK".

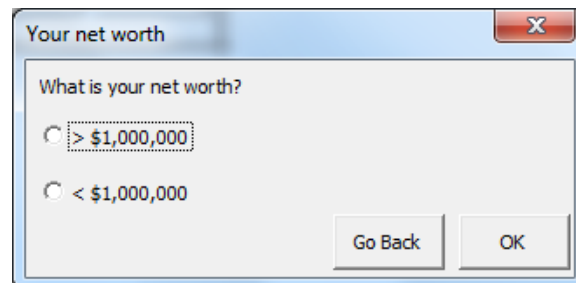
If the user chose not to calculate ordinary income, but rather simply selected an income range based on his/her filing status as shown previously (Single, Married Filing Jointly/Surviving Spouse, Married Filing Separately, or Head of Household), then the window above would appear just the same.

After the user clicks “OK”, the following window appears requesting information for new investments to be made during 2012:



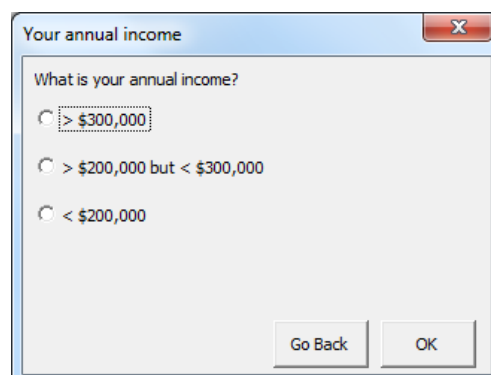
A dialog box titled "New investments for 2012" with a close button (X) in the top right corner. The main text asks "Which investments are you considering for 2012?". Below this, there are five checkboxes: "Stocks", "Real estate", "Bonds", "Commodities", and "Hedge funds". The "Stocks" checkbox is currently selected. To the right of the "Commodities" checkbox is a blue hyperlink that says "Info. on commodities". At the bottom right of the dialog box are two buttons: "Cancel" and "OK".

The user checks the appropriate boxes and clicks “OK”. The following window will appear only if the user checked hedge funds as a possible investment:



A dialog box titled "Your net worth" with a close button (X) in the top right corner. The main text asks "What is your net worth?". Below this, there are two radio button options: "> \$1,000,000" and "< \$1,000,000". The "> \$1,000,000" option is currently selected. At the bottom right of the dialog box are two buttons: "Go Back" and "OK".

In general, only very wealthy individuals invest in hedge funds (most investors in hedge funds are institutional rather than individuals). If the user has a net worth of \$1 million or higher, then he/she is automatically an accredited investor and no further information is needed. However, if the user's net worth is less than \$1 million, then he/she may or may not be accredited, and information regarding his/her annual gross income is necessary:



A dialog box titled "Your annual income" with a close button (X) in the top right corner. The main text asks "What is your annual income?". Below this, there are three radio button options: "> \$300,000", "> \$200,000 but < \$300,000", and "< \$200,000". The "> \$300,000" option is currently selected. At the bottom right of the dialog box are two buttons: "Go Back" and "OK".

If the user's annual gross income is greater than \$300,000, he/she is automatically an accredited investor. If it is less than \$200,000, then he/she is automatically not an accredited investor (since it was already determined that his/her net worth was less than \$1 million). If it is in the range of \$200,000-\$300,000, then he/she is an accredited investor if filing as Single or Head of Household. If he/she is married, then he/she is not accredited.

If the investor is not accredited, then a message box appears informing the investor of the requirements to become an accredited investor. If the investor is accredited, either through the net worth or the annual gross income test, then the next window to appear will ask the investor for information regarding certain investments to be sold during 2012, and, in the case of corporate stock, the length of time it was held for, since this will determine whether it is preferential income in regards to taxation. The following window will appear (this is what would appear if the user had not checked the hedge funds box on the form regarding new investments for 2012):

Investments to be sold during 2012

Which investments are you planning on selling or otherwise disposing of this year?

☐ Stocks ☐ Real estate

☒ Bonds ☐ Commodities

☐ Hedge funds

Holding period for stocks sold:

☐ More than one year

☐ One year or less

☐ Sold stocks in both categories

Cancel OK

If the user checks the stocks box, then he/she must choose an option for the holding period of the stocks sold. Otherwise, he/she may simply click "OK". If stocks is selected but no holding period is selected, then a message box appears telling the user that he/she must select a holding period. After clicking "OK", the user will see a final window that will allow him/her to calculate anticipated investment income for the year. The window appears on the following page.

Calculation of Income Earned on Investments and Sales of Investment Assets

Investment income earned for 2012 (other than capital gain income):

Dividends: [Info. on dividends](#)

Distributive share of hedge fund: [Info. on hedge funds](#)

Commodities: [Info. on commodities](#)

Investment income earned from sale of stock:

Stock held for more than one year: Stock held for less than one year*:

Purchase price: Purchase price:

Sale price: Sale price:

Gain (or loss): Gain (or loss):

*Note: Any gain on stock held for one year or less is a short-term capital gain and is taxed as ordinary income.

Taxable Investment Income:

Cancel OK

Finally, after all necessary information has been gathered, the user will see a final summary window of the information that he/she provided throughout the tutorial. The user has the option to click the “Edit” link next to taxable ordinary income or taxable investment income if he/she feels changes need to be made. Otherwise, the user may simply click “Finish.” The tax liability is computed on the ordinary income based on the progressive marginal tax rates, and investment income is taxed based on the rate applicable for long-term capital gains, dividends, and other investments considered capital assets.

Projected Tax Liability and Summary

Based on the information you have provided, your projected tax liability on investment income for 2012 will be:

Summary of Information:

Filing Status:

Taxable Ordinary Income: [Edit](#)

Taxable Investment Income: [Edit](#)

Tax on ordinary income:

Tax on investment income:

Annual Income:

Net Worth:

Investments to be sold:

Investments to be purchased:

Finish

This is an explanation, from beginning to end, of what happens when during the program. However, it may be useful to see the big picture summarized as a flow chart, which I have created on the last page. Hopefully this can help clarify some of the intricacies of my program.

(For any given window, if the user clicks "Cancel" it ends the tutorial prematurely.)

MFJ/SS = Married Filing Jointly/Surviving Spouse

MFS = Married Filing Separately

HH = Head of Household

