

## Instructions

### Preparing a Budget.

Preparing and monitoring a budget is the first step in controlling your money. A budget allows you to track your income (the money that you earn) and your expenses (the money that you spend). It also allows you to plan your short- and long-term savings.

### The Assignment.

This assignment consists in developing a personal budget (using the spreadsheet template) for the first year after graduation, assuming you have a job which provides you with enough income to cover your living expenses, but you should include other reasonable sources of income, such as interest on investments and child support, depending on each individual case.

In most cases, this budget should apply to you as a single individual living by and providing for yourself, even if you are planning to live with your parents or other relatives. So, assume that whatever you receive in terms of room and board for free is actually paid. The same principle applies to other expenses such as auto and medical insurance. For tax purposes, you would be treated as a single tax filer. In those cases where you are married or are in any other living arrangement, you have the option to prepare your budget as a single individual, or as a married person filing jointly tax returns. Make sure you indicate that situation.

The budget is composed of three sections. The first section consists of estimating gross income, taxes, and take-home pay. Your income should include salary, bonuses, commissions, and tips. Also, add interest and dividends from investments you own. It is optional to include occasional gifts for the holidays or birthdays. Once your gross income is estimated, taxable income needs to be calculated considering adjustments and deductions. Last, taxes need to be projected to arrive at take-home pay.

The second section refers to budgeting required and discretionary expenses. Your required expenses include rent or mortgage payments, utilities, food and groceries, transportation, auto and medical insurance and debt payments. If you rent, you are most likely responsible for renter's insurance. If you own a home, you need to budget for home insurance (generally included in the mortgage

payment). Discretionary expenses are recurring or non-recurring outflows for non-essential items or services. Once income and expenses are estimated, savings are simply the difference. However, expenses, and to certain extent income, could be adjusted to meet personal savings objectives.

The third section involves calculating financial ratios, applying TVM concepts to approximate long term savings for retirement, analyzing the budget results and presenting the major takeaways gained from the budget exercise.

### Completing the EXCEL Budget Template

The template has 5 tabs:

- A. Rubric and Deadlines (bonus points are offered for early submission).
- B. Helpful links
  - 1) Job, Salary, Taxes, and Take-home (First Section)
  - 2) Monthly Expense Budget (Second Section)
  - 3) Financial Ratios, Long Term Savings, and Analysis (Third Section)

**First Section:** On the "Job, Salary, Taxes, Take-home" tab:

#### Job Information (Rows 7 to 10)

On the "Job Information" part enter the place you would like to work (Row 7), the position you think you would have (Row 8) and the city you would like to live in (Row 9). Given you major, place of work and experience level, estimate what you can expect to make in your first year after graduation, enter your Expected Gross Annual Salary upon Graduation (Row 10). Your salary would be your main source of income. The salary estimation should be around the national or state average for a given job. Significant deviations should be explained and justified. Please check the "Helpful Links" tab for websites with salary information.

#### Tax Estimation (Rows 15 to 24)

The template will automatically record your gross annual salary as wages (Row 15) Enter an estimation of other taxable income (interest, dividends, alimony) (Row 16). Explain. Estimate how

much of your gross salary you would contribute to your individual retirement account<sup>1</sup>. There are some limits established by the IRS, but a good base case is 6%, however, it can be higher or lower. Employers will often match this amount, so it is a good idea to put as much as the employer will match. Enter your Retirement Contribution estimation as a dollar amount (Row 18). Explain. Enter your allowable deductions (Row 20). You can choose the Standard Deduction, or if convenient, the Itemized Deduction. Explain. Enter your Federal Income Tax estimation (Row 22). Explain. This should be a precise estimation, considering your taxable income and your tax bracket (Margin of error 5%). Use the tax rates for year 2019 (new tax rates). For the Tax Tables, look for a link on "Helpful Links". Rows 15, 17, 19, 21 and 24 are automatically calculated.

### Annual Take-home Pay Estimation (Rows 28 to 36)

The template automatically makes an allowance for sundry employee and FICA taxes<sup>2</sup>. Enter your State Income Tax (Row 33). This can be a rough estimation if you are projecting to reside outside Texas. Texas is a free income tax state, but many other states charge income taxes. In fact, there are cities, New York for example, that also have income taxes. Make an allowance for those taxes if appropriate. The template will automatically estimate your Annual Take-home-Pay and record your monthly take-home pay on the "Monthly Expense Budget" tab. Enter an estimation of any non-taxable income such as gifts and presents if applicable (Row 35). Rows 28 to 32, 34, and 36 are automatically calculated.

Second Section, on the "Monthly Expense Budget" tab:

### Monthly Expenses and Savings (Rows 10 to 36)

In all cases enter the January column and the rest will fill automatically. A brief description should be provided for each item, even if it is zero. If not applicable, indicate so.

Enter your Housing expense, either rent or mortgage payment (Row 12). Prorate if roommates are anticipated. If you already own a home, enter the mortgage payment (mortgage, home insurance, and property taxes). Explain. Enter your estimate for utility bills based on averages for the area you

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<sup>1</sup> See Note 1 on Individual Retirement Accounts. Go to Appendix.

<sup>2</sup> See Note 2 on FICA taxes. Go to Appendix.

have chosen to live. You would find reasonable estimates in the websites of the utilities of the area (Rows 13-17). Explain. Estimate and enter renters<sup>3</sup> insurance (Row 18).

Estimate and enter your food and grocery expenses (Row 19). Your food and grocery budget should be like what is now unless you have a meal plan. The meal plan by itself should serve as an upper bound on how much to budget. If uncertain, go to the grocery store and check prices, ask a friend, and last but not the least, check with your mother (she always knows best). Explain.

Estimate and enter your expected student debt payment based on loan actual conditions (Row 20). Explain. Enter your car loan payment estimation from line 49, or \$ 0 if you already own a car (Row 21). Explain. Estimate and enter car insurance, gasoline and car maintenance expenses (Rows 22 to 24). For gasoline, provide the basis of the estimation in terms of miles per month, gallons per mile and price per gallon. If applicable, estimate and enter public transportation expenses (Row 25). Explain.

Estimate and enter health care expenses (Row 26). Consider three main types of medical expenses: monthly premiums, out of pocket expenses and unexpected costs. It is safe to assume the health insurance will be provided by your employer. That is usually the case if working for the government, corporations, banks, colleges and school districts. If not, estimate the cost of individual health insurance. Out-of-pocket expenses include prescription drugs you take on a regular basis, as well as costs for special medical conditions, copayments, dental appointments, preventative vision, eyeglasses, and contacts. Unexpected costs, such as E.R. visits or emergency surgery, are difficult to budget but still plan for them by allocating a small amount. Explain. Estimate and enter personal care expenses (haircuts, manicure, pedicure, hair salon, facial treatments, exercise and yoga classes, gym fees, etc.) (Row 27). Explain.

Rows 28- to 33 cover a sundry list of expenses, some of them on the discretionary category. Many of them depend on tastes, preferences, and lifestyle. A line for pet care has been included. After all, Woof and Silvester also like to eat every day. Entertainment includes dining out, movies, dates, plays, sports events, happy hours, cigarettes and e-cigarettes, lottery tickets, club fees, etc.

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<sup>3</sup> See Note 3 on Renters Insurance. Go to Appendix.

Rows 35 and 36 estimate monthly and accumulated savings based on the income and expense projections. Use the accumulated savings to estimate the financial ratios of the next section.

#### Car Loan Monthly Payment (Rows 41 to 49)

**(This calculation is required even if you own a car)**

In the table Auto Loan Estimation, enter the make (Row 41), model (Row 42), year (Row 43), car price (Row 44), annual interest rate (Row 47), loan length in months (Row 48) and the estimated monthly payment (Row 49), based on your assumptions. To arrive at the monthly payment, you can use either the tables, the formula, the calculator or EXCEL. Make sure you double check your estimation. The calculation must be exact (1% margin of error). The car payment should be estimated under the assumption that you buy a new or a used car, 80% of which would be financed at the current loan market conditions. It is assumed that the 20% for the down payment has been procured somehow (perhaps provided by good old' uncle Joe).

**Very important:** Make sure your annual budget is balanced, meaning income exceeds or equals expenses, with the difference going into savings. If your budget is unbalanced, meaning expenses exceed income, make the necessary modification to ensure it becomes balanced. You could a) Check your income assumptions to make sure they are not overly pessimistic; b) Adjust your expenses where there is room for that, you can always move to a smaller apartment or opt for a used cheaper car; c) Reduce your contributions for retirement.

On the "Savings and Takeaways" tab:

Estimate the indicated ratios using previous information from the other tabs (Rows 10 to 13).

Estimate the accumulated retirement savings after 30 years of equal annual contributions under the indicated assumptions using the TVM formulas (1% margin of error) (Rows 25 and 29).

Complete a short analytical review of your budget, explaining the main takeaways of the exercise.

Use the indicated space. You should answer questions such as What do the financial ratios indicate?

Which short-term objectives are met under this budget? Are you satisfied with the level of savings,

short and long term, indicated by the budget? How confident are you in terms of meeting the budget objectives? Which are the advantages and disadvantages of budgeting?

## Appendix

### Note 1: Individual Retirement Account (IRA)

An IRA is an account established at a financial institution that allows a tax payer to save for retirement with tax-free growth or on a tax-deferred basis. Two popular types of IRA advantages are: a) A Traditional IRA - You make contributions with money you may be able to deduct on your return as a tax adjustment, and any earnings can grow tax-deferred until you withdraw them in retirement; b) Roth IRA - You make contributions with money you've already paid taxes on (after-tax), and your money may potentially grow tax-free, with tax-free withdrawals in retirement, provided that certain conditions are met.

### Note 2: The Federal Insurance Contributions Act (FICA)

The FICA taxes were established The Federal Insurance Contributions Act (FICA). By federal law employees are required to pay three separate taxes Employers must withhold those taxes from wages. FICA is comprised of the following taxes:

- a) 6.2 percent Social Security tax;
- b) 1.45 percent Medicare tax (the "regular" Medicare tax); and
- c) Since 2013, a 0.9 percent Medicare surtax when the employee earns over \$200,000.

### Note 3: Renters Insurance

A renters insurance is a coverage designed to help protect you and your belongings. A standard renters insurance policy comprises liability coverage, protection for your belongings and coverage for extra living expenses, should the home you are renting become provisionally uninhabitable. While it may not always possible to avoid certain situations, such as a break-in or visitor's injury, renters insurance, sometimes referred to as "tenant insurance," may help minimize the impact, whether you are renting an apartment or a house.

### Note 4: Fixed Income and Variable Income Markets.

Fixed income security refers to any type of investment that yields a regular or fixed return. It is an investment that provides a return in the form of fixed periodic payments and the eventual return of principal at maturity. Government and corporate bonds are the two main instruments of the fixed

income market. By contrast, variable income refers to any type of investment that yields a variable return. A corporate stock is the very typical example of a variable-income investment. When investors purchase shares in a company, they acquire a series of rights including the right to collect dividends. If the company earns profits during a given fiscal year, it may distribute those earnings to its shareholders in the form of dividends, but profits vary from year to year, and so the dividends.