



# Personal Finance: Another Perspective

## Budgeting and Measuring Your Financial Health: Giving Every Dollar a Name

Updated 2017-06-19



# Objectives

- A. Understand the principles of successful budgeting
- B. Develop and implement a budget
- C. Calculate your Net Worth using a Balance Sheet
- D. Develop a personal Income Statement and use it to analyze your spending
- E. Introduce Budgeting Software – Quicken and Mint



# Your Personal Financial Plan

- Section IV. Budgets
  - Include cover sheet that explains differences with explanations. Support includes forecast, actual, and differences (use TT01-04 Budget template)
    - Month 1. (Quicken, TT31, Mint, YNAB, etc.)
    - Month 2.
    - Month 3. (Budgets will be handed in at the end of each of the first two months, with the third month's budget handed in with the PFP)
  - Action Plan
    - What can you do to do better in the future?
    - Include a One Year Spending Plan (TT30F) (In Quicken use a screen shot of your advanced budget)



# Your Personal Financial Plan

## ✓ Section III. Personal Financial Statements:

- Have a cover sheet with current situation and action plan for each section below explaining where you are and your action plan for getting where you want to be (use TT01-03 Financial Statements template)
- Show first and last months data for your
  - a. Personal Balance Sheets
  - b. Personal Income Statements
  - c. Personal Financial Ratios
- Action Plan for a-c
  - What can you do to improve each of these statements in the future?



# A. Understand the Principles of Successful Budgeting (continued)

- What are the principles of successful budgeting?
  - 1. Understand yourself and your goals
  - 2. Spend less than you earn
  - 3. Keep good records for spending, tax and other purposes
  - 4. Use a budgeting method that meets your Individual and family needs and objectives
  - 5. Eliminate (unproductive) consumer debt and minimize (productive) mortgage and education debt
- Whatever method you choose, it should accomplish the above principles



# Principles of Successful Budgeting (continued)

- There are five main types of budgeting methods to help meet your needs and objectives:
  - Useful methods:
    - 1. The Envelope Method
    - 2. The 60% Rule
    - 3. Spreadsheets
    - 4. Budgeting Software
  - The method too many of us use:
    - 5. DNAH-ial Methods (Do Nothing and Hope)



# Principles of Successful Budgeting (continued)

- The Envelope Method
  - Requirements: Envelopes for each category
    - Divide spending each month into categories. At the beginning of each month, take the money you have planned for each category and put it in the envelope
      - Once a bill comes, take the money from the corresponding envelope and pay the bill
      - Once the money is gone from one envelope and you need more, you must shift money between other envelopes or make do with what you have
      - There is no getting money outside the system



# Principles of Successful Budgeting (continued)

- The 60% Solution Method
  - Requirements: Journal or spreadsheet
  - Determine your gross salary each month. Take 60% of that amount and only spend that amount each month. Do not spend beyond that amount
    - Take 20% of your salary and save for long-term goals
    - Take 20% of your salary and save to pay your taxes at year-end
    - Once you have spent your money, you cannot go outside the method for more money



# Principles of Successful Budgeting (continued)

- Spreadsheet Methods
  - Requirements: Computer and spreadsheets
  - Determine your gross salary and take home each month after taxes and other deductions
    - Determine spending by categories (rows) and dates (columns), and budget each category
    - As bills come in, input the spending on each date (column) and row (category)
    - Plan in adequate amounts for a financial reserve and long-term goals
    - Type in spending directly into spreadsheet
    - Can be useful if updated regularly (TT04/31)



# Principles of Successful Budgeting (continued)

- Computer Software Methods
  - Requirements: Computer and software, such as Mint.com (free), Quicken, Mvelopes
  - Determine your gross salary and take home each month after taxes and other deductions
    - Determine spending by category, and budget each category. Work to within your budget for each spending category
    - Obtain receipts and credit card information directly via internet from financial institutions
    - Can plan in adequate amounts for a financial reserve and long-term goals



# Principles of Successful Budgeting (continued)

- DNAH-ial Methods (Denial - Do nothing and hope for the best)
  - Requirements: None
    - This is what the majority use
    - Do nothing in this areas
    - Deny there is a concern
    - Hope things work out (they should because I pay my tithing)
    - Only respond when things get so bad that you have to act



# Which is the best method?

- In my experience, the best plans are those that:
  - 1. Are low cost and relatively easy to use
  - 2. Allows downloading of bills from banks and credit card companies--makes data entry easier
  - 3. Allows adequate categorization of spending for income, spending, reporting and tax purposes
  - 4. Minimizes the time spent in doing finances (I spend roughly 1-2 hours per week)
- What I recommend (for most):
  - Mint.com for those starting out (free), spreadsheets for Excel wizards, and Quicken for more advanced users who are willing to put in the upfront time



## B. Develop and Live on a Budget

Spencer W. Kimball said:

- Every family should have a budget. Why, we would not think of going one day without a budget in this Church or our businesses. We have to know approximately what we may receive, and we certainly must know what we are going to spend. And one of the successes of the Church would have to be that the Brethren watch these things very carefully, and *we do not spend that which we do not have* (italics added, Conference Report, April 1975, pp. 166-167).



# Budgeting (continued)

- What is a Budget?
  - It is the single most important tool in helping you attain your personal goals.
    - It's the process of making sure your resources are used for the things that matter most—your personal goals
      - Budgeting is a star to set your sights by, not a stick to beat yourself with



# Budgeting (continued)

- The Budgeting Process
  - 1. Know what you want to accomplish (goals)
  - 2. Track your spending (saving and expenses)
  - 3. Develop your cash budget (plan)
  - 4. Implement your budget
  - 5. Compare it to actual expenses and make changes where necessary to achieve your goals



# 1. Know what you want to accomplish

- Know and write down your goals
  - What do you want to accomplish
    - Do you want to:
      - Graduate from college
      - Prepare to be a worthy spouse
      - Get a great job
      - Send kids to college and on missions
      - Return to your Heavenly Father



## 2. Track spending

- There are different methods to track spending:
  - Checks and credit cards
    - These expenditures leave a paper trail
  - Cash
    - Record expenditures in a notebook
  - Computer programs, i.e., Quicken, Money
    - These are very useful, especially if tied to bank and credit card companies
  - The goal is to generate a monthly income and expense statement



### 3. Develop your Cash Budget (the better way)

- What is a Cash Budget?
  - A plan for controlling cash inflows and outflows
  - Its purpose--To help you spend money for what is really important to you
- Income:
  - Examine last year's after-tax total income and make adjustments for the current year.
- Expenses:
  - Identify all fixed (“must have”) and variable (“would be nice to have”) expenditures
    - Look for ways to reduce your variable expenses



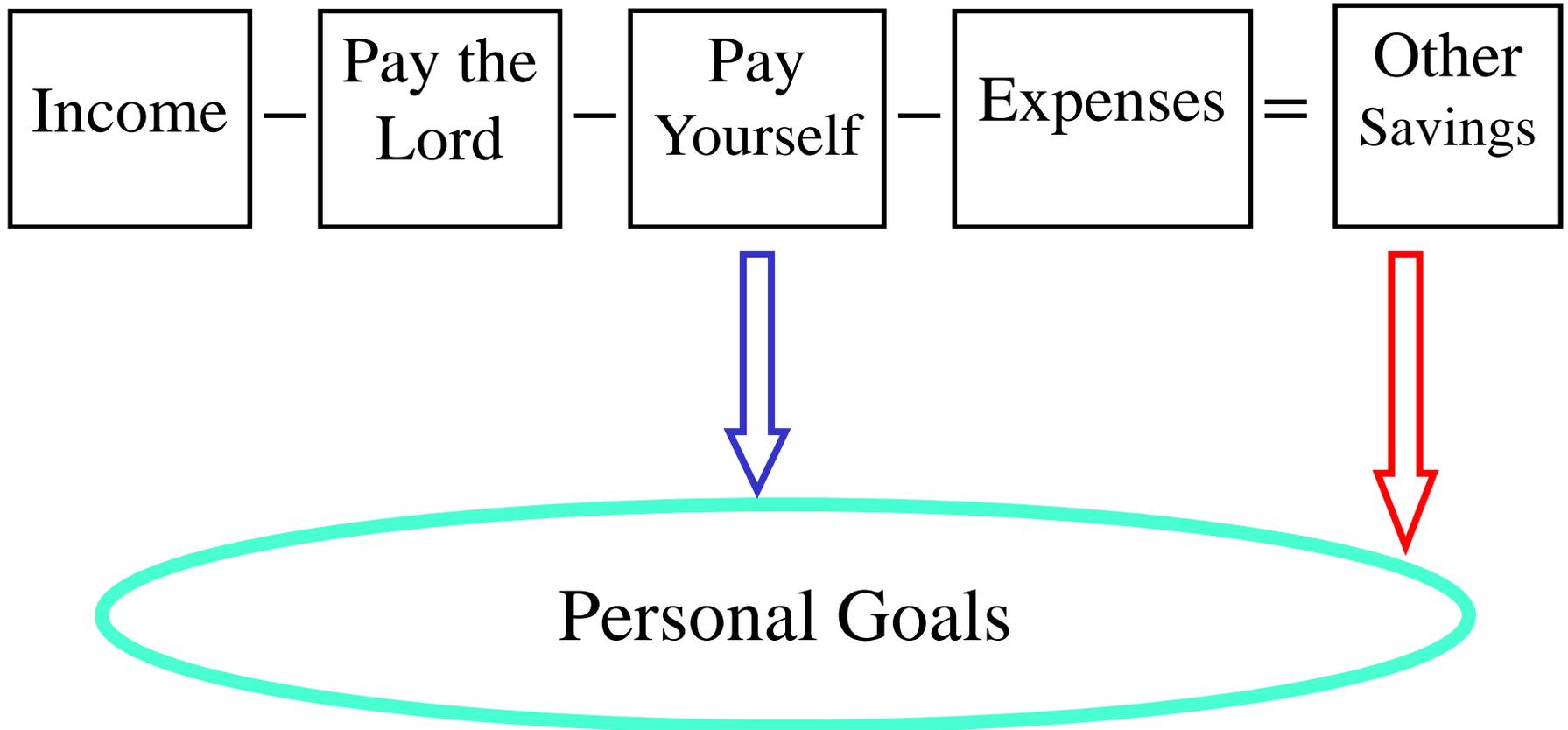
# Budgeting: The Old Way

$$\boxed{\text{Income}} - \boxed{\text{Tithing}} - \boxed{\text{Expenses}} = \boxed{\text{Available for Savings}}$$





# Budgeting: The Better Way





# The Better Way

- Before
  - You paid the Lord first, lived on the rest, and whatever money was left at the end of every month went into savings.
- Now
  - You pay the Lord first, yourself second, and then live on the rest--your priorities are now in order
    - And now you have twice the chance of achieving your personal goals



## The Better Way (continued)

L. Tom Perry affirmed this when he said:

- After paying your tithing of 10 percent to the Lord, you pay yourself a predetermined amount directly into savings. That leaves you a balance of your income to budget for taxes, food, clothing, shelter, transportation, etc. It is amazing to me that so many people work all of their lives for the grocer, the landlord, the power company, the automobile salesman, and the bank, and yet think so little of their own efforts that they pay themselves nothing (L. Tom Perry, “Becoming Self-Reliant,” *Ensign*, Nov. 1991, 64).



## The Better Way (continued)

- Gordon B. Hinckley stated:
  - *In managing the affairs of the Church, we have tried to set an example.* We have, as a matter of policy, stringently followed the practice of setting aside each year a percentage of the income of the Church against a possible day of need. I am grateful to be able to say that the Church . . . is able to function without borrowed money. If we cannot get along, we will curtail our programs. We will shrink expenditures to fit the income. We will not borrow (italics added, Gordon B. Hinckley, “To the Boys and to the Men,” *Ensign*, Nov. 1998, 51).



## 4. Implement your Cash Budget

- Try the budget for a month
  - Record all income and expenses in the proper category by date
  - Sum all days or columns
  - Note how much you have available in each category at the end of each week
  - Adjust the plan or expenses as necessary to maintain the plan
    - Try to be as financially prudent as possible



## 5. Compare Budget to Actual

- Compare your budget to actual
  - Adjust the plan or your expenses as necessary to maintain the plan
    - Don't reduce payments to the Lord or yourself
- If all else fails, this system will work!
  - Use the Envelope System



# Final Remarks on Budgeting

Marvin J. Ashton stated:

- Some claim living within a budget takes the fun out of life and is too restrictive. But those who avoid the inconvenience of a budget must suffer the pains of living outside of it. The Church operates within a budget. Successful business functions within a budget. Families free of crushing debt have a budget. *Budget guidelines encourage better performance and management* (italics added, Marvin J. Ashton, “It’s No Fun Being Poor,” *Ensign*, Sept. 1982, 72).



# Questions

- Any questions on budgeting?

Teaching Tool Examples include:

- TT04 Budget, Balance Sheet and Ratios
- TT31 Debt Free Spending spreadsheet with debt reduction, and one year and one month budgets
- Excel 2014 Excel template
- Budgeting Programs include (among others):
  - Mint.com
  - Quicken
  - MoneyDesktop.com
  - Mvelopes.com, YNAB, etc.



## B. Calculate your Net Worth Using a Balance Sheet

- What is a personal balance sheet?
  - A financial snapshot of your financial position on a given date
- How do you calculate your net worth or equity?
  - Assets (things you own of value)
  - Liabilities (what you owe others)
  - Net Worth (the value of your holdings)

Note: There are different ways to value your assets and liabilities. Do it correctly!



# Assets: What you own

- There are four different types of assets
  - This differentiation is important as it will have a major impact on how you will live your financial lives.
    - Please note that your most important assets are not included on your balance sheet.
      - They include your family, your testimony, and your education
      - Always keep these assets first in mind



# Assets: What you own

- 1. Income-generating assets
  - These are the best type of assets. These assets generate income or capital gains which may eventually allow you to have income without your having to work.
    - These would include financial assets such as stocks, bonds, or mutual funds; rental properties that are structured well; or even some types of insurance.



# Assets: What you own

- 2. Appreciating assets
  - These are assets which may or which have historically appreciated in value.
    - Examples include your home or some types of business assets.



# Assets: What you own

- 3. Depreciating assets
  - These are assets which depreciate. Often, the minute you take ownership of these assets, i.e. drive these assets off the car lot, they drop in value.
    - This includes assets such as automobiles, recreational vehicles, boats, etc.



# Assets: What you own

- 4. Income-consuming assets
  - These are assets perhaps listed above which require a constant infusion of cash to keep operative.
    - Examples include automobiles (maintenance, fuel, insurance), recreational vehicles (maintenance, fuel, insurance), homes (property taxes, upkeep, insurance), recreational properties (property taxes, upkeep, insurance), etc.



# Assets: What you own

- A. Monetary (or Current) Assets
  - Cash or other assets that can be easily converted into cash. These may be income-producing assets
    - Provide necessary liquidity in case of an emergency
    - Reported at current or market value



# Assets (continued)

- B. Investment Assets
  - Assets, stocks, bonds, mutual funds that are invested for the future. These are also income-producing assets.
    - Used to accumulate wealth to satisfy specific goals
    - Reported at current or market value



## Assets (continued)

- C. Retirement plans
  - Income-producing assets, such as pensions, IRAs, 401K, etc. by you or employer
    - Used to accumulate wealth for retirement
    - Reported at current or market value
- D. Housing
  - Appreciating tangible assets, such as land, dwellings, vacation home, or rental property
    - Use for personal goals or capital income
    - Reported at fair market or appraised value



## Assets (continued)

- E. Automobiles and Other Vehicles
  - Depreciating assets, such as cars, trucks, and RVs that normally must be inspected and licensed
    - Use to meet transportation and work needs
    - Reported at “blue book” or appraised value
- F. Personal Property
  - Depreciating tangible assets, such as boats, furniture, clothing, etc.
    - These assets represent your lifestyle
    - Reported at fair market value, but normally depreciates



## Assets (continued)

- G. Other Assets
  - Any other tangible or intangible assets, business ownership, collections, hobbies, that may or may not be of value
    - Used to fulfill specific personal or business goals and objectives
    - Reported at appraised value, but very hard to value



# Liabilities: What You Owe

Liabilities come in two major forms:

- A. Current liabilities
  - Liabilities that must be paid-off within the next year.
    - Credit cards, utility bills, rent, tuition, books, food, etc.
      - Reported at the current amount, plus accrued interest depending on how soon you pay it off



# Liabilities (continued)

- B. Long-term liabilities
  - Liabilities that extend beyond one year
    - Student loans, auto loans, home mortgage, consumer loans, credit card debt that you do not expect to pay off within a year, etc.
      - Reported at the current amount, although interest rates and when you pay it off will ultimately determine your ultimate payoff amount



# The Difference: your net worth

- Do you owe more than you own?
  - If so, you are Insolvent.
    - It may be OK for most students. You are investing now! Keep your spending off credit cards though!!!
  - What is a good level of net worth?
    - Depends on your goals and your life cycle
      - “Good” is relative. Where are you now?



# Net Worth

- What does your balance sheet show?
  - Is your net worth growing?
  - Are you are reaching your goals?
  - Are you are planning for emergencies?
  - Do you have adequate liquid assets?
  - Are you out of credit card and consumer debt?
  - Are you saving for retirement and your other financial goals
  - If you can answer affirmatively to the above, you are financially “healthy”



# Questions

- Any questions on balance sheets?



## C. Develop a Personal Income Statement

- What is a Personal Income Statement?
  - A financial record your inflows and outflows of cash
    - It is on a cash basis. The statement is based entirely on actual cash flows, not accruals
  - Sources of income:
    - Wages, tips, royalties, salary, and commissions
      - Income is amount earned, not necessarily amount received. It also includes taxes, health care costs, expenses, etc.



# Expenditures: Where Your Money Goes

- Two types of expenses
  - Fixed expenses:
    - Expenses you don't directly control
      - Mortgage, rent, tuition, books, etc.
  - Variable expense:
    - Expenses you can control
      - Food, entertainment, clothing, BYU Creamery, dates, cable TV, new rims for the jeep, new snowboard



## Expenditures (continued)

- Can there be differences of opinion as to fixed versus variable expenses?
  - One spouse might consider dates each weekend a fixed expense, while another, variable
    - Be careful that variable expenses are not considered fixed
      - Most fixed expenses are variable over longer periods of time



## Financial Ratios:

### A Way to Analyze Spending

- Key Questions to Ask Yourself:
  - 1. Do you have adequate liquidity to meet emergencies?
  - 2. Do you have the ability to meet your debt obligations?
  - 3. Are you saving as much as you think you are?



## Question 1: Do You Have Adequate Liquidity?

- These ratios help determine whether or not you have enough monetary assets to pay for an unexpected large expense or to tide you over during periods of reduced or eliminated earnings
  - Two Key Liquidity Ratios:
    - a. Current ratio
    - b. Month's Living Expenses Covered ratio



# Liquidity Ratios (continued)

- 1.a. Current ratio
  - Monetary Assets/Current Liabilities
    - This ratio tells you how many times you could pay off your current liabilities with your liquid cash on hand
  - Interpretation
    - Ratio greater than 2 recommended
      - Track the trend and if it is going down -- make changes
        - Note that this ratio does not consider long-term assets or liabilities



## Liquidity Ratios (continued)

- 1.b. Month's Living Expenses Covered ratio
  - Monetary Assets/Monthly Living Expenses
    - This ratio tells you how many months you could survive in the event of the loss of all current income
      - Your living expenses do not include charitable contributions, taxes or savings
  - Interpretation
    - A ratio of 3-6 is recommended. This ratio should at least be equal to how many months it would take to get a new job
      - Track the trend and if it is going down -- make changes



## Question 2: Can You Meet Your Debt Obligations?

- These ratios help determine whether or not you can meet your current or long-term debt obligations:
  - Key debt ratios:
    - a. Debt ratio
    - b. Long-term debt coverage ratio



## Debt Ratios (continued)

- 2.a. Debt ratio
  - Total liabilities/total assets
    - This ratio tells you whether you could payoff all your liabilities if you liquidated all your assets.
  - Interpretation
    - This represents the percentage of your assets financed with borrowing
      - Track the trend; this ratio should go down with age.
        - A zero debt ratio is a great goal!



## Debt Ratios (continued)

- 2.b. Long-term Debt Coverage ratio
  - After-tax income/Long-term Debt Payments
    - This ratio tells how long you could make monthly payments on your debt based on your income after taxes. The inverse of this ratio is the Debt Service ratio
  - Interpretation
    - The higher this ratio the better, as it indicates the longer you could cover your debt payments
      - Track the trend; this ratio should go up. Ideally, you have no debt



## Question 3: Are You Saving As Much As You Think?

- These ratios determine what percent of your income you are putting to work for you each period through savings and investment
  - Two key savings ratios:
    - a. Savings Ratio
    - b. Gross Savings Ratio



## Savings Ratios (continued)

- 3.a. Savings Ratio
  - Income for Savings / Income after taxes
    - This ratio tells you what proportion of your after-tax income is being saved.
  - Interpretation
    - U.S. rate typically -1% to 8%
      - Track the trend. If it is decreasing, make changes
        - We recommend a minimum savings ratio 10%+ but in reality 20%+ if possible, and more as you get older



## Savings Ratios (continued)

- 3.b. Gross Savings Ratio
  - Savings / Gross Income
    - This ratio tells you what proportion of your total income is being saved.
  - Interpretation
    - U.S. rate typically -1% to 7%
      - Track the trend. If it is decreasing, make changes
        - We recommend you save at minimum 10% but in reality 20%+ of your gross income if possible, and more as you get older



## D. Introduce Budgeting Software

- There are a number of good software tools available
  - Excel spreadsheet-based
    - Learning Tool 4
    - Learning Tool 31
    - Excel 2013 budgeting template
  - Internet based
    - Mint.com
  - PC based
    - Quicken for PC and Mac
    - Nvelopes



# Final Thoughts

- Joseph B. Wirthlin commented:
  - I advise you to be patient in financial matters. Avoid rash or hurried financial decisions; such decisions require patience and study. Get-rich-quick schemes seldom work. Beware of debt. Be especially careful of easily obtained credit even if the interest is tax deductible. You young couples should not expect to begin your married lives with homes, automobiles, appliances, and conveniences comparable to those your parents have spent years accumulating. (Joseph B. Wirthlin, “Patience, a Key to Happiness,” *Ensign*, May 1987, 30.)



# Review

- A. Can and will you develop and implement a budget?
- B. Can and will you calculate your net worth (wealth) using a balance sheet?
- C. Can and will you develop a personal income statement and use it to analyze your spending?
- D. Introduce budgeting software: Quicken, Mint.com and others



# Case Study #1: Prepare a Balance Sheet

## Data

- Steve and Mary Jo, both 35, have a yearly income of \$50,000, own a house worth \$150,000, monetary assets of \$5,000, two cars worth \$20,000 total, and furniture worth \$10,000. The house has a \$100,000 mortgage, they have college loans of 10,000 outstanding, and the cars have outstanding loans of \$10,000 each. Bills totaling \$1,150 for this month have not been paid (\$1,000 is to pay off their credit card that they use for paying their bills). They are requesting your help.

## Calculations

- Using the data above, create a balance sheet for Steve and Mary Jo. How are they doing?



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Steve and Mary Joe have yearly income of \$50,000; monetary assets of \$5,000; a house worth \$150,000; two cars worth \$20,000; and furniture worth \$10,000. The house has a \$100,000 mortgage; the cars have \$10,000 each outstanding loans; college loans of 10,000; and utility bills totaling \$1,150 for this month, have not been paid.



Steve and Mary Joe have yearly income of \$50,000; monetary assets of \$5,000; a house worth \$150,000; two cars worth \$20,000; and furniture worth \$10,000. The house has a \$100,000 mortgage; the cars have \$10,000 each outstanding loans; college loans of 10,000; and utility bills totaling \$1,150 for this month, have not been paid.

- Assets

• Monetary assets	5,000
• Primary residence	\$150,000
• Automobiles	20,000
• Furniture	<u>10,000</u>
• Total Assets	185,000

- Liabilities

• Current bills	\$1,150
• First Mortgage	100,000
• College loan	10,000
• Automobiles (2 x \$10,000)	<u>20,000</u>
• Total Liabilities	131,150

- Net Worth (A – L) \$53,850



# Case Study #2: Prepare an Income Statement

## Data

- Steve and Mary Jo, who make \$50,000 per year total, calculated their average tax rate at 15%. They contributed 12% of their total income to charity and pay themselves 10%. They have 25 years and \$100,000 remaining on their 6% mortgage (\$7,730 per year), 3 years and \$20,000 remaining on their 7% auto loan (\$7,410), and 10 years and \$10,000 remaining on their 3% college loan (\$1,160). In addition, utilities and property taxes were \$2,270 per year, food \$6,000, insurance \$1,500, and other expenses were \$5,430.

## Calculations

- Help them calculate their annual income statement, using the “better” method. How are they doing?



**Key Information:** Salary \$50,000 per year, tax rate at 15%, charity 12%, and save 10%. They have 25 years and \$100,000 on a 6% mortgage (\$7,730), 3 years and \$20,000 on a 7% auto loans (\$7,410), and 10 years and \$10,000 on a 3% college loan (\$1,160). Utilities and property taxes are \$2,270, food \$6,000, insurance \$1,500, and other expenses \$5,430.



Key Information: Salary \$50,000 per year, tax rate at 15%, charity 12%, and save 10%. They have 25 years and \$100,000 on a 6% mortgage (\$7,730), 3 years and \$20,000 on a 7% auto loans (\$7,410), and 10 years and \$10,000 on a 3% college loan (\$1,160). Utilities and property taxes are \$2,270, food \$6,000, insurance \$1,500, and other expenses \$5,430.

### Annual Income

Wages	\$50,000
Taxes (15%)	7,500
Income after taxes	42,500
Paying the Lord (12%)	6,000
Paying Yourself (10%)	5,000
Income for Living Expenses	\$31,500

### Expenses

Mortgage	\$7,730
Utilities, taxes	2,270
Food	6,000
Insurance	1,500
College Loan	1,160
Car Payment	7,410
Other Expenses	5,430
Living Expenses	\$31,500

### Calculating Annual Expenses

- Mortgage  $PV=100,000$ ,  $I = 6\%$ ,  $n=25*12$ ,  $PMT=? * 12 = \$7,730$
- College Loan  $PV=10,000$ ,  $i=3\%$ ,  $N=10*12$ ,  $Pmt=? * 12 = \$1,160$
- Car  $PV=20,000$ ,  $i=7\%$ ,  $n=3*12$ ,  $Pmt = ? * 12 = \$7,410$



# Case Study #3: Calculate Financial Ratios and Make Recommendations

## Data

- Steve and Mary Jo would like you to help them understand where they are financially. You have their balance sheet and income statements which you prepared earlier (they are on the next slide)

## Calculations

- They ask for help to calculate their key liquidity, debt, and savings ratios

## Application

- Using the data earlier, calculate each of the six financial ratios. Explain them to Steve and Mary Jo and help them see how well they are doing.
- What can and should they be doing to improve?



Liquidity Ratios: 1. Current Ratio: Current Assets/Current Liabilities. 2. Month's Living Expense Covered Ratio: Monetary Assets/Monthly living expenses.

<b>Assets</b>		<b>Annual Income</b>	
• Monetary/Current Assets	\$5,000	Wages	\$50,000
• Primary residence	150,000	Taxes	7,500
• Automobiles	20,000	Income after taxes	42,500
• Furniture	10,000	Paying the Lord	6,000
• Total Assets	185,000	Paying Yourself	5,000
		Income for Living Expenses	31,500
<b>Liabilities</b>		<b>Expenses</b>	
• Current Liabilities	1,150	• Mortgage	7,730
• First Mortgage (6% 25y)	100,000	• Utilities, taxes	2,270
• Automobiles (7% 3 yr)	20,000	• Food	6,000
• College loan (3% 10 yr)	10,000	• Insurance	1,500
• Total Liabilities	131,150	• College Loan	1,160
		• Car Payment	7,410
		• Other Expenses	5,430
<b>New Worth (Assets – Liabilities.)</b>	<b>53,850</b>	<b>Total Living Expenses</b>	<b>31,500</b>



Key Information: Current/monetary assets \$5,000; Current liabilities 1,150; Mortgage \$7,730; Utilities \$2,270; Food 6,000; Insurance 1,500; College Loan \$1,160; Car Payment \$7,400; Other Expenses \$5,430; Total Living Expenses: \$31,500;

- **Liquidity Ratios**

- 1. Current ratio = current assets / current liabilities
  - $\$5,000 / 1,150 =$  They can cover liab. 4.35 times
- 2. Month's Living Expense Covered Ratio = Monetary assets / [Total living expenses / 12 (or monthly LE)]
  - $\$5,000 / (31,500 / 12) = \$5,000 / 2,624$  [(Mort. + Util. + Food + Ins. + CLoan + CarPmt + Othr.Exp.) / 12] = They could live 1.9 months on their mon. assets
  - Note that living expenses does not include charity, taxes, or paying yourself
- Explanation: They are somewhat liquid, with a good current ratio ( $>2$ ) but could only cover annual living expenses for less than 2 months ( $>3-6+$  months is better). They need to cut expenses, and reduce and pay off debt.



Debt Ratios: 1. Debt Ratio: Total Liabilities/Total Assets. 2. Long-term Debt Coverage Ratio: Income after Taxes/Long-term Debt payments.

<b>Assets</b>		<b>Annual Income</b>	
• Monetary/Current Assets	\$5,000	Wages	\$50,000
• Primary residence	150,000	Taxes	7,500
• Automobiles	20,000	Income after taxes	42,500
• Furniture	10,000	Paying the Lord	6,000
• Total Assets	185,000	Paying Yourself	5,000
		Income for Living Expenses	31,500
<b>Liabilities</b>		<b>Expenses</b>	
• Current Liabilities	1,150	• Mortgage	7,730
• First Mortgage (6% 25y)	100,000	• Utilities, taxes	2,270
• Automobiles (7% 3 yr)	20,000	• Food	6,000
• College loan (3% 10 yr)	10,000	• Insurance	1,500
• Total Liabilities	131,150	• College Loan	1,160
		• Car Payment	7,410
		• Other Expenses	5,430
New Worth (Assets – Liabilities.)	53,850	Total Living Expenses	31,500



Key Information: Total liabilities \$131,150; Total assets \$185,000; Total income \$50,000; Taxes \$7,500; Wages after taxes \$42,250; Mortgage \$10,000; College loan \$1,160; Car payments \$7,410.

- Debt ratios

- 1. Debt Ratio = Total liabilities / Total assets
  - $\$131,150 / \$185,000 = 70.9\%$  of assets covered by debt
- 2. Long-term Debt Coverage Ratio = Income after taxes (W-T) / LT debt payments
  - $\$42,250 \text{ (W-T)} / (\$7,730 + 1,160 + 7,410) \text{ (M+CL+CP)} = \$42,250 / \$16,300 = \text{They can cover debt 2.6 times}$
  - Their debt service ratio is  $\$16,300 / 42,500 = 38.6\%$
- Explanation: They have lots of debt--71% of their assets are financed, and their long-term debt ratio is 2.6 times, just above the 2.5 caution level. 38.6% of their total income available goes to cover just debt payments. Just think--they could be investing that money!



Savings Ratios: 1. Savings Ratio: Savings/Income after Taxes. 2. Gross Savings: Savings / Gross Income

Assets

- Monetary/Current Assets \$5,000
- Primary residence 150,000
- Automobiles 20,000
- Furniture 10,000
- Total Assets 185,000

Liabilities

- Current Liabilities 1,150
- First Mortgage (6% 25y) 100,000
- Automobiles (7% 3 yr) 20,000
- College loan (3% 10 yr) 10,000
- Total Liabilities 131,150

New Worth (Assets – Liabilities.) 53,850

Annual Income

Wages	\$50,000
Taxes	7,500
Income after taxes	42,500
Paying the Lord	6,000
Paying Yourself	5,000
Income for Living Expenses	31,500
Expenses	

- Mortgage 7,730
- Utilities, taxes 2,270
- Food 6,000
- Insurance 1,500
- College Loan 1,160
- Car Payment 7,410
- Other Expenses 5,430

Total Living Expenses 31,500



Key Information: Salary \$50,000; Taxes \$7,500; Savings \$5,000; Income after Taxes \$42,500

- Savings ratios

- 1. Savings ratio = Savings / income after taxes
  - $\$5,000$  (PY) /  $\$42,500$  (W-T) = They save 11.8% of their income after-tax
- 2. Gross Savings ratio = Savings / gross salary
  - $\$5,000$  /  $\$50,000$  = They save 10% of their gross salary
- Explanation: They are saving 11.8% of their Income after taxes, and 10% of their gross salary. This is OK, but should be the minimum amount.
  - I would hope students taking this class would save much more, perhaps 20% of their gross salary (10% minimum though) or more



## Case #4 How are They Doing?

Overall situation	Actual	Recommended
• L - Current ratio	4.4 times	> 2
• L - Month's LEC ratio	1.9 times	> 3 – 6+
• D - Debt ratio	70.9%	0% (Note 1)
• D - LT debt coverage ratio	2.6 times	> 2.5
• % income to pay debt	38.0%	0% (Note 1)
• S - Savings ratio	11.8%	> 20%
• S - Gross savings ratio	10.0%	20%, 10% min (Note 2)
• Notes:		
1. Depends on your age. Ideally, it should decrease to zero		
2. While the recommended minimum is 10%, it should increase as the situation allows. I encourage students to save 20% of every dollar after they graduate from school		



Current ratio	4.4 times > 2	Month's living expense	1.9 times > 3-6+
Debt ratio	70.9% 0%	LT debt coverage ratio	2.6 times > 2.5
Savings ratio	11.8% > 10%	Gross savings ratio	10.0% 10% min

## Recommendations:

### *Liquidity:*

- Steve and Mary Jo are somewhat liquid, but they do not have enough in their monetary assets
  - They need to significantly increase their monetary assets, to save more
    - Monetary assets are likely their emergency fund.
    - They should set a goal to have a LEC ratio of 3-6 or greater
  - To conserve cash, they need to stop purchases, reduce spending and perhaps sell some assets. They are paying so much on debt payments that they cannot build their savings and emergency fund. They need to go on a more strict budget.



Current ratio	4.4 times > 2	Month's living expense	1.9 times > 3-6+
Debt ratio	70.9% 0%	LT debt coverage ratio	2.6 times > 2.5
Savings ratio	11.8% > 10%	Gross savings ratio	10.0% 10% min

## Recommendations:

### *Debt:*

- Steve and Mary Jo are carrying way too much debt. 71% of their assets are financed by debt.
  - They need to act
    - They must bring down their debt
    - They are very close to the danger range of a debt coverage ratio of 2.5 times. Currently 38% of their income is used for long-term debt payments
  - While they have equity in their home, that is where most of their net worth currently resides. They should cut expenses, reduce their debt, and perhaps sell their expensive cars and purchase cheaper ones



Current ratio	4.4 times	> 2	Month's living expense	1.9 times	> 3-6+
Debt ratio	70.9%	0%	LT debt coverage ratio	2.6 times	> 2.5
Savings ratio	11.8%	> 10%	Gross savings ratio	10.0%	10% min

## Recommendations:

### *Savings:*

- Steve and Mary Jo are saving 10% of their income
  - However, their total investment assets are only \$5,000. \$5,000 in monetary assets/\$5,000 savings means they only began saving within the last year
    - While they can't do anything about the fact they should have begun saving earlier, they need to save more now. I would encourage them to reduce their spending and up their savings goal to 20%
  - I would take their 20% savings, after building a 3-6 month emergency fund, and use it to pay down debt