Chapter 3
Financial Statements and Budgets

Chapter Focus

- Financial statements are developed to measure financial performance and assist in the financial planning process. In this chapter we learn the basics of balance sheet, income statement, financial ratios, and budget.

Major Topics

- The Balance Sheet
  - Assets: liquid assets, lifestyle (use) assets, and investment assets
  - Liabilities: current and noncurrent liabilities
  - Net worth
- The Income Statement
  - Income
  - Expenses: inflexible and flexible expenses
  - Contributions to savings
- Evaluating Past Financial Performance
  - Maintaining adequate liquidity
  - Avoiding excessive amounts of debt
- Achieving Goals through Budgeting
  - Preparing the annual budget
  - Monitoring and controlling activities

The Personal Balance Sheet

- Shows assets, liabilities, and net worth (wealth)
- Assets:
  - Liquid assets: cash or any other asset that can be easily converted to cash with no loss in market value.
  - Lifestyle (use) assets: things with value that help us achieve our desired quality of life, such as a house, a car, furniture, etc.
  - Investment assets: assets that provide income or increase our net worth over time.
- Liabilities
  - Current liabilities: a debt that must be paid within one year.
  - Noncurrent liabilities: Debt obligations beyond one year.
- Net worth= assets - liability

Example: A Balance Sheet for a College Student on 12/31/2006

Assets		Liabilities	
Cash on hand	**$30**	**End-of-the-month balance on Visa card**	**$231**
Balance in checking account	**$300**	**Car loan**	**$4,500**
Clothing inventory	**$200**		
Books and school supply	**$200**		
Furniture and equipment	**$250**		
Car	**$6,000**		
Total assets	**$6,980**	**Total liabilities**	**$4,731**

Net Worth = Assets – Liabilities = $6,980-$4,731= $2,249

Example: Steeles' Assets on 12/31/2006

- **Steeles' liquid assets:**
  - **Cash** **$ 240**
  - **Checking Account** **2,400**
  - **Savings Account** **5,600**
  - **42-Month CD** **5,000**
  - **Series EE Bonds** **3,000**
  - **Total** **$ 16,240**
- **Steeles' lifestyle (use) assets**
  - **Residence** **$ 205,000**
  - **Household Furnishings** **20,000**
  - **Automobiles and Camper** **29,100**
  - **Jewelry, Clothing, Stamp Coll.** **5,800**
  - **Sporting Equipment** **600**
  - **Riding Mower** **1,000**
  - **Total** **$ 261,500**
- **Steeles' investment assets**
  - **Common Stocks** **$ 16,000**
  - **Mutual Funds** **6,800**
  - **Cash Value: Life Insurance** **4,000**
  - **Cash Value: Retirement Fund** **21,000**
  - **Total** **$ 47,800**

Steeles' Liabilities

- Current liabilities
  - Unpaid Bills $ 460
  - Credit Card Balances Due 1,720
  - Estimated Taxes Due 1,750
  - Installment Pmts Due in 1 Year 4,424
  - Total $ 8,354
- Noncurrent liabilities
  - Mortgage Loan $ 152,829
  - Installment Pmts after 1 Year 4,966
  - Loan on Life Insurance Policy 2,000
  - Total $ 159,795

Balance Sheet for the Steele Family

- Assets
  - Liquid $ 16,240
  - Lifestyle 261,500
  - Investment 47,800
  - Total $ 325,540
- Liabilities
  - Current $ 8,354
  - Noncurrent 159,795
  - Total $ 168,149
- Net Worth = $325,540 - $168,149 = $157,391

The Income Statement

- Shows:
  - Income: a family's cash income over a given period of time, usually a year
  - Expenses: cash expenses for the same period
  - Savings: the difference between the income and the expenses
- Also measures financial success: A rising income facilitates goal achievement

Income

- Income would include
  - Wages and/or salaries
  - Interest income
  - Dividend income
  - Capital gains or losses
  - Rental income
  - Other incomes

Example: Steeles' income (Year ending 12/31/2006)

- Wages and salaries $ 75,600
- Interest income 937
- Dividends 1,090
- Capital gains (losses) 0
- Rental income 0
- Others 0
- Total income $ 77,627

Expenses

- Expenses are cash outflows that sustain our scale of living
  - Inflexible expenses: Hard to control in the short run, such as car payments, mortgage payment, utility bills, insurance premiums.
  - Flexible expenses: generally controllable in the short run, such as eating out, clothing, gasoline, home maintenance.

Example: Steeles' Expenses: Inflexible and Flexible (Year ending 12/31/2006)

- Inflexible
  - Mortgage $18,285
  - Auto loans 5,668
  - Car Licenses 210
  - Utilities 3,750
  - Taxes 18,070
  - Insurance 2,520
  - Dues 200
  - Tuition, books 390
  - **Total** **$25,920**
- Flexible
  - Allowances $ 1,300
  - Leisure 5,010
  - Home furn. 3,500
  - Gas, oil, etc.. 2,100
  - Food, cons. 8,230
  - Clothing 2,120
  - Gifts, contrib.. 2,080
  - Others 1,580
  - **Total** **$ 49,133**

Total expenses = 25,920+49,133=75,033

Example: Steeles' Income Statement: Year Ended 12/31/2006

Total Income	$ 77,627	100.0%
Total Expenses	75,033	96.7%
Savings	2,594	3.3%

- Contribution to savings increases one's assets or reduces one's liabilities, thus increase one's net worth.

Evaluating Past Performance

- Did your income meet or beat last year's inflation rate?
- Did your net worth increase at the same rate as inflation?
- Are you maintaining adequate liquidity?
- Are you avoiding excessive debt?

Income, Net Worth and Inflation Rate

- Income evaluation
  - Nominal income is actual amount received
  - Real income is nominal income adjusted for inflation
  - % change in nominal income is calculated
    - [this year's nominal income/last year's nominal income] – 1
    - Example: [$60,000/$50,000] - 1 = 1.20 - 1 = 0.20
  - Compare amount to annual inflation rate: 20% versus, say, 3%. Great performance!
- Net worth evaluation
  - % change in nominal net worth compared to inflation rate

Financial Ratios

- Yardsticks to measure financial strengths and weaknesses
- Your ratios can be compared to those of other families
- Care is needed in using ratios
  - You should look at a number of ratios, rather than only one
  - Also, a ratio's trend is important

Financial Ratios Measuring Liquidity

- **Liquid Assets to Take-Home Pay Ratio (0.25-0.5 acceptable):**
  - Steeles: Liquid Assets/ Take-Home Pay = $16,240/$61,030 = 0.266 (Fair)
    - Take-Home Pay = Salaries of $75,600 - Payroll Taxes of $14,570
- **Liquidity Ratio (>1 is acceptable, the larger the better):**
  - Steeles: Liquid Assets/Current Liabilities = $16,240/$8,354 = 1.94 (Good)

Steeles' Financial Ratios Measuring Debt Capacity

- **Debt Ratio (<0.5 is acceptable, the smaller the better)**
  - Steeles: Total Liabilities/Total Assets = $168,149/$325,540 = 0.517 (some weakness)
- **Debt Service Coverage Ratio (>3.0 is acceptable, the larger the better)**:
  - Steeles: Take-Home Pay/Debt Service Charges =$61,030/$24,133 = 2.53 (some weakness)

So How are the Steeles Doing?

- Good liquidity (both ratios are acceptable)
- Too much debt (both ratios are less than desirable)

Achieving Goals through Budgeting

- A budget is a plan indicating financial goals and how resources will be allocated to achieve them.
- Simple rules for successful budgeting
  - Set realistic budget goals--a budget is not a straitjacket to produce only savings
  - Stick to simple procedures
  - Use the budget to control any direct expenses

Preparing an Annual Budget

- Step 1. Goals should guide you in your budget preparation. Chapter 2 is helpful in figuring out how much you need to save to achieve your goals.
- Step 2. Prepare master budget worksheet
- Step 3. Prepare monthly income and expense plan
- Step 4. Evaluate and control activities
  - Monthly
  - At Year End

Step 1. Goal Setting - Hierarchical Goals: From Concrete to Abstract

- Bottom level (Lowest)
  - Consumption needs: housing, transportation, food, utilities, taxes, insurance, entertainment, clothing, saving, etc.
- Second level
  - More abstract
    - Enjoy moderate to high level of current consumption
    - College education for children
    - Comfortable retirement
- Third level (Highest)
  - Most abstract
    - Financial independence

Step 2. The Master Budget Worksheet

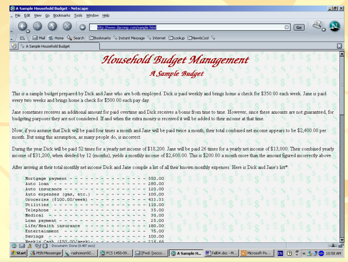
- Has the same format as the annual income statement except here you put in what you would like to spend, not a record of how you have spent.
- Allocated amounts should reflect historical experience plus inflation adjustment
- Should focus on planned savings
- Should be realistic and achievable

Step 3. The Monthly Income and Expense Plan

- Shows cash flows by month
- Indicates months when cash flow may be negative
- Negative cash flows require management
  - Will need adequate cash reserves/ or
  - Will need to borrow

A Sample Budget on the Web (Click to the go to the site)

http://www.dacomp.com/sample.html



Step 4. Monitoring and Updating Income and Expense Accounts

- Each month compare actual income or expense with budgeted amount
- The difference is an account variance
- Unfavorable expense variances need attention
  - Reduce spending in future periods to eliminate variance
  - Ideally by Year end, cumulative variance = 0

Check Out These Web Sites

- See how others are spending:
  - By income: http://www.bls.gov/cex/2005/Standard/income.pdf
  - By family size: http://www.bls.gov/cex/2005/Standard/cusize.pdf
  - Visit this website for many additional spending statistics: http://www.bls.gov/cex/home.htm#tables

Assignment for Chapter 3

- Make a balance sheet for yourself. Calculate your assets, liabilities, and net worth.
- Figure out your liquidity ratios and debt ratios. See if you are within the acceptable ratio ranges. If yes, keep up the good work. If not, you need to pay special attention to budgeting. Make sure you set detailed goal before you do you budgeting.
- For the coming month, track your income and expenditures so you can construct a monthly income instatement (normally income statements are annual).
- At the end of the coming month, make a monthly budget for the next month based on your tracking assignment. Still track your income and spending for a month to see if how you stay within your budget.