

- (c) If Victor and Maria sell their New York 2016 bond and put the cash into their savings account, what effects would this move have on their net worth ratio?
- (d) Use the sample budgets in Table 3.7 to explain to the couple how their budget might change when their children go to college.

## Case 5

### Harry and Belinda Johnson

Harry graduated with a bachelor's degree in interior design last spring from a large Midwestern university near his hometown. Belinda has a degree in business finance from a university on the West Coast. Harry and Belinda both worked on their school's student newspapers and met at a conference during their junior year in college. They were married last June and live in an apartment in Kansas City. They currently own one car and Belinda uses public transportation to commute to work. Harry and Belinda look forward to advancing in their careers, buying their own home, and having children.

#### The Johnsons' Financial Statements Suggest Budgeting Problems

Harry and Belinda both found jobs in the same city. Harry works at a small interior design firm and earns a gross salary of \$2500 per month. He also receives \$3000 in interest income per year from a trust fund set up by his deceased father's estate; the trust fund will continue to pay that amount until 2020. Belinda works as a salesperson for a regional stock brokerage firm. She earns \$3000 per month, and when she finishes her training program in another two months, her gross salary will increase \$300 per month. Belinda has many job-related benefits, including life insurance, health insurance, and a credit union. The Johnsons live in an apartment located approximately halfway between their places of employment. Harry drives about 10 minutes to his job, and Belinda travels about 15 minutes via public transportation to reach her downtown job. Harry and Belinda's apartment is very nice, but small, and it is furnished primarily with furniture given to them by their families. Soon after starting their first jobs, Harry and Belinda decided to begin their financial planning. Each had taken a college course in personal finance, so after initial discussion, they worked together for two evenings to develop the two financial statements presented below and on the next page.

- (a) Briefly describe how Harry and Belinda probably determined the fair market prices for each of their tangible and investment assets.
- (b) Using the data from the cash-flow statement developed by Harry and Belinda, calculate a basic liquidity ratio, asset-to-debt ratio, debt service-to-income ratio, debt payments-to-disposable

income ratio, and investment assets-to-total assets ratio. What do these ratios tell you about the Johnsons' financial situation? Should Harry and Belinda incur more debt?

- (c) The Johnsons enjoy a high income because both work at well-paying jobs. They have spent parts of three evenings over the past several days discussing their financial values and goals together. As shown in the upper portion of Figure 3.5, they have established three long-term goals: \$3000 for a European vacation to be taken in 2½ years, \$5000 needed in October 2011 for a down payment on a new automobile, and \$26,078 for a down payment on a home to be purchased in December 2013. As shown in the lower portion of the figure, the Johnsons did some calculations to determine how much they had to save for each goal—over the near term—to stay on schedule to reach their long-term goals as well as pay for two vacations and an anniversary party. After developing their balance sheet and cash-flow statement, the Johnsons made a budget for the year (shown in Table 3.8). They then reconciled various conflicting needs and wants until they found that total annual income exceeded expenses. Next, they created a revolving savings fund (Table 3.10) in which they were careful to include enough money each month to meet all of their short-term goals. When developing their cash-flow calendar for the year (Table 3.9), they noticed a problem: substantial cash deficits during four months of the year. In fact, despite their projected high income, they anticipate a deficit for the year. To meet this problem, they do not anticipate increasing their income, using savings, or borrowing. Instead, they are considering modifying their needs and want to reduce their budget estimates to the point where they would have a positive balance for the year. Make specific recommendations to the Johnsons on how they could make reductions in their budget estimates. Do not offer suggestions that would alter their new lifestyle drastically, as the couple would reject these ideas.

#### Balance Sheet for Harry and Belinda Johnson— January 1, 2008

	Dollars	Percent
<b>ASSETS</b>		
<b>Monetary Assets</b>		
Cash on hand	\$ 1,178	5.48
Savings (First Federal Bank)	890	4.14
Savings (Far West Savings and Loan)	560	2.60
Savings (Smith Brokerage Credit Union)	160	0.74
Checking account (First Federal Bank)	752	3.50
<b>Total monetary assets</b>	<b>\$ 3,540</b>	<b>16.45</b>

**Tangible Assets**

Automobile (3-year-old Toyota)	\$ 11,000	51.13
Personal property	2,300	10.69
Furniture	1,700	7.90
<b>Total tangible assets</b>	<b>\$15,000</b>	<b>69.72</b>

**Investment Assets**

Harry's retirement account	\$ 1,425	6.62
Belinda's retirement account	1,550	7.20
<b>Total investment assets</b>	<b>\$ 2,975</b>	<b>13.83</b>
<b>Total Assets</b>	<b>\$21,515</b>	<b>100.00</b>

**LIABILITIES****Short-Term Liabilities**

Visa credit card	\$ 390	1.81
Sears card	45	0.21
Dental bill	400	1.86
<b>Total short-term liabilities</b>	<b>\$ 835</b>	<b>3.88</b>

**Long-Term Liabilities**

Student loan (Belinda)	\$ 3,800	17.66
Automobile loan (First Federal Bank)	8,200	38.11
Total long-term liabilities	\$ 12,000	55.78
<b>Total Liabilities</b>	<b>\$ 12,835</b>	<b>59.66</b>
<b>Net Worth</b>	<b>\$ 8,680</b>	<b>40.34</b>
<b>Total Liabilities and Net Worth</b>	<b>\$ 21,515</b>	<b>100.00</b>

**Cash-Flow Statement for Harry and Belinda Johnson  
July 1–December 31, 2007 (First Six Months of Marriage)**

	Dollars	Percent
<b>INCOME</b>		
Harry's gross income ( $\$2500 \times 6$ )	\$ 15,000	41.64
Belinda's gross income ( $\$3000 \times 6$ )	18,000	49.97
Interest on savings account	24	0.07
Harry's trust fund	3,000	8.33
<b>Total Income</b>	<b>\$36,024</b>	<b>100.00</b>
<b>EXPENSES</b>		
<b>Fixed Expenses</b>		
Rent	\$ 5,400	14.99
Renter's insurance	220	0.61
Automobile loan payment	1,710	4.75
Automobile insurance	420	1.17
Medical insurance (withheld from salary)	750	2.08
Student loan payments	870	2.42
Life insurance (withheld from salary)	54	0.15
Cable television	540	1.50
Health club	300	0.83
Savings (withheld from salary)	900	2.50
Harry's retirement plan (6% of salary)	900	2.50
Belinda's retirement plan (4% of salary)	720	2.00
Federal income taxes (withheld from salary)	4,600	12.77
State income taxes (withheld from salary)	1,600	4.44
Social Security (withheld from salary)	2,520	7.00
Automobile registration	90	0.25
<b>Total fixed expenses</b>	<b>\$21,594</b>	<b>59.94</b>

**Variable Expenses**

Food	\$ 2,300	6.38
Utilities	750	2.08
Telephone	420	1.17
Gasoline, oil, maintenance	700	1.94
Doctor's and dentist's bills	710	1.97
Medicines	345	0.96
Clothing and upkeep	1,900	5.27
Church and charity	800	2.22
Gifts	720	2.00
Christmas gifts	350	0.97
Public transportation	720	2.00
Personal allowances	1,040	2.89
Entertainment	980	2.72
Vacation (holiday)	700	1.94
Vacation (summer)	600	1.67
Miscellaneous	545	1.51
<b>Total variable expenses</b>	<b>\$13,580</b>	<b>37.70</b>
<b>Total Expenses</b>	<b>\$35,174</b>	<b>97.64</b>
<b>Surplus (deficit)</b>	<b>\$ 850</b>	<b>2.36</b>

**On the 'Net**

Go to the Web pages indicated to complete these exercises. You can also go to the *Garman/Forgue* website at [college.hmco.com/business/students](http://college.hmco.com/business/students) for an expanded list of exercises. Under General Business, select the title of this text. Click on the Internet Exercises link for this chapter.

1. Visit *Kiplinger's Personal Finance Magazine* website at <http://www.kiplinger.com/tools/>. There you will find a link to a long list of calculators that can be used in various present and future value calculations. Select four that you believe would be particularly useful in the aspects of personal financial planning that were discussed in this chapter.
2. Visit the website for SRI Consulting at <http://www.sric-bi.com/VALS/presurvey.shtml> where you will find the VALS questionnaire. This short questionnaire will help you identify your values in the context of the values of other members of American society.
3. Visit the website for the Economic Policy Institute at [http://www.epi.org/content.cfm/datazone\\_fambud\\_budget](http://www.epi.org/content.cfm/datazone_fambud_budget) where you can find an example of a family budget for many areas of the United States. Calculate the budget for an area of interest to you. How useful do you think such a calculator would be for a family interested in developing its own budget?

**Visit the Garman/Forgue website...**

[@college.hmco.com/business/students](http://college.hmco.com/business/students)

Under General Business, select *Personal Finance 9e*. There, among other valuable resources, you will find a complete glossary, ACE questions, links to help you complete the chapter exercises, and links to other personal finance sites.

**Figure 3.5**

Goals Worksheet for Harry and Belinda Johnson

Date worksheet prepared <u>Feb. 20, 2008</u>					
1	2	3	4	5	6
LONG-TERM GOALS	AMOUNT NEEDED	MONTH & YEAR NEEDED*	MONTHS TO SAVE	DATE START SAVING	MONTHLY AMOUNT TO SAVE (2 ÷ 4)
European vacation	\$3,000	Aug. 2010	30	Feb. '08	\$100
Down payment on new auto	5,000	Oct. 2011	45	Jan. '08	111

Date worksheet prepared <u>Feb. 20, 2008</u>					
1	2	3	4	5	6
INTERMEDIATE-TERM GOALS	AMOUNT NEEDED	MONTH & YEAR NEEDED*	MONTHS TO SAVE	DATE START SAVING	MONTHLY AMOUNT TO SAVE (2 ÷ 4)
Down payment on home	\$26,078	Dec. 2013	60	Jan. '08	\$435

Date worksheet prepared <u>Feb. 20, 2008</u>					
1	2	3	4	5	6
SHORT-TERM GOALS	AMOUNT NEEDED	MONTH & YEAR NEEDED*	MONTHS TO SAVE	DATE START SAVING	MONTHLY AMOUNT TO SAVE (2 ÷ 4)
Partial down payment on new auto	\$1,332	Dec. '08	12	Jan. '08	\$111
House fund	4,815	Dec. '08	12	Jan. '08	401
Christmas vacation	700	Dec. '08	12	Jan. '08	58
Summer vacation	600	Aug. '08	6	Mar. '08	100
Anniversary party	250	June '08	5	Feb. '08	50

\*Goals requiring five years or more to achieve require consideration of investment return and after-tax yield, which will be presented in Chapter 4.

## Action Before: Make and Reconcile Budget Estimates

Before the month begins, you make and reconcile budget estimates of income and expenditures. Here you resolve conflicting needs and wants by revising estimates as necessary. You can't have everything in life—especially this month—even though you might want it.

**budget estimates** Projected dollar amounts to receive or spend in a budgeting period.

**take-home pay/disposable income** Pay received after employer withholdings for taxes, insurance, and union dues.

**discretionary income** Money left over after necessities such as housing and food are paid for.

**Make Budget Estimates** Budget estimates are the projected dollar amounts in a budget that one plans to receive or spend during the period covered by the budget. Begin by estimating total gross income from all sources, and review take-home pay and then discretionary income. For example, Jonny Deppe's annual gross income is \$60,000 and after employer withholdings for taxes, insurance, and union dues, his **take-home pay** (also called **disposable income**) is \$48,000. This is the money available for spending, saving, investing, and donating. Focus also on your **discretionary income**. This is the money left over once the necessities of living are covered, such as paying for housing, food, and other necessities. It is usually the money that is really "controllable" and often makes up the bulk of your variable expenses. After Jonny pays his rent, food, utilities, and car payment, his discretionary income is \$18,000.

Table 3.8 Annual Budget Estimates for 2009 for Harry and Belinda Johnson

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Yearly Total	Monthly Average
<b>INCOME</b>														
Harry's salary	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,575	\$2,575	\$2,575	\$2,575	\$2,575	\$2,575	\$30,450	\$2,537.50
Belinda's salary	3,000	3,000	3,300	3,300	3,300	3,300	3,300	3,300	3,300	3,300	3,300	3,300	39,000	3,250.00
Interest	24	24	24	25	26	27	27	28	30	31	33	33	332	27.67
Trust	0	0	0	0	0	0	0	0	3,000	0	0	0	3,000	250.00
<b>Total Income</b>	<b>\$5,524</b>	<b>\$5,524</b>	<b>\$5,824</b>	<b>\$5,825</b>	<b>\$5,826</b>	<b>\$5,827</b>	<b>\$5,902</b>	<b>\$5,903</b>	<b>\$8,905</b>	<b>\$5,906</b>	<b>\$5,908</b>	<b>\$5,908</b>	<b>\$72,782</b>	<b>\$6,065.17</b>
<b>EXPENSES</b>														
<b>Fixed Expenses</b>														
Rent	\$ 900	\$ 900	\$ 900	\$ 900	\$ 900	\$ 900	\$ 950	\$ 950	\$ 950	\$ 950	\$ 950	\$ 950	\$11,100	\$ 925.00
Health insurance	135	135	135	135	135	135	135	135	135	135	135	135	1,620	135.00
Life insurance	9	9	9	9	9	9	9	9	9	9	9	9	108	9.00
Home purchase fund	400	400	400	400	400	400	400	400	400	400	400	400	4,800	400.00
Renter's insurance	0	0	0	0	0	220	0	0	0	0	0	0	220	18.33
Automobile insurance	0	0	0	0	0	440	0	0	0	0	0	440	880	73.33
Auto loan payment	285	285	285	285	285	285	285	285	285	285	285	285	3,420	285.00
Student loan	145	145	145	145	145	145	145	145	145	145	145	145	1,740	145.00
Savings/emergencies	24	24	70	150	85	150	150	28	150	150	150	150	1,281	106.75
Harry's retirement plan	150	150	150	150	150	150	154	154	154	154	154	154	1,824	152.00
Belinda's retirement	120	120	132	132	132	132	132	132	132	132	132	132	1,560	130.00
Health club	50	50	50	50	50	50	50	50	50	50	50	50	600	50.00
Cable television	35	35	35	35	35	35	35	35	35	35	35	35	420	35.00
Federal income taxes	767	767	848	848	848	848	854	854	854	854	854	854	10,050	837.50
State income taxes	266	266	284	284	284	284	289	289	289	289	289	289	3,402	283.50
Social Security	421	421	444	444	444	444	450	450	450	450	450	450	5,318	443.17
<b>Total fixed expenses</b>	<b>\$3,707</b>	<b>\$3,707</b>	<b>\$3,887</b>	<b>\$3,967</b>	<b>\$3,902</b>	<b>\$4,627</b>	<b>\$4,038</b>	<b>\$3,916</b>	<b>\$4,038</b>	<b>\$4,038</b>	<b>\$4,038</b>	<b>\$4,478</b>	<b>\$48,343</b>	<b>\$4,028.58</b>
<b>Variable Expenses</b>														
Savings/investments	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$3,000	\$ 0	\$ 0	\$ 0	\$3,000	\$ 250.00
Revolving savings fund	140	140	140	140	140	0	250	0	215	190	0	0	1,355	112.92
Food	350	350	350	350	350	350	350	350	350	350	350	350	4,200	350.00
Utilities	150	150	150	150	100	100	100	100	100	125	125	150	1,500	125.00
Telephone	70	70	70	70	70	70	70	70	70	70	70	90	860	71.67
Auto expenses	115	115	115	115	115	115	115	115	115	115	115	115	1,380	115.00
Medical	100	100	100	100	100	100	100	100	100	100	100	100	1,200	100.00
Clothing	180	180	180	180	180	180	180	180	180	180	180	180	2,160	180.00
Church and charity	100	100	100	100	175	100	100	100	100	100	100	100	1,275	106.25
Gifts	80	80	160	75	120	20	20	60	60	60	60	20	815	67.92
Christmas gifts	0	0	0	0	0	0	0	0	0	0	400	300	700	58.33
Public transportation	60	60	60	60	60	60	60	60	60	60	60	60	720	60.00
Personal allowances	200	200	200	200	200	200	200	200	200	200	200	200	2,400	200.00
Entertainment/meals	240	240	240	240	240	240	240	240	240	240	240	240	2,880	240.00
Automobile license	0	0	0	0	0	40	0	0	0	0	0	0	40	3.33
Vacation (Christmas)	0	0	0	0	0	0	0	0	0	0	0	700	700	58.33
Vacation (summer)	0	0	0	0	0	0	0	600	0	0	0	0	600	50.00
Anniversary party	0	0	0	0	0	250	0	0	0	0	0	0	250	20.83
Miscellaneous	32	32	72	78	74	75	79	62	77	78	75	75	809	67.42
<b>Total variable expenses</b>	<b>\$1,817</b>	<b>\$1,817</b>	<b>\$1,937</b>	<b>\$1,858</b>	<b>\$1,924</b>	<b>\$1,900</b>	<b>\$1,864</b>	<b>\$2,237</b>	<b>\$4,867</b>	<b>\$1,868</b>	<b>\$2,075</b>	<b>\$2,680</b>	<b>\$26,844</b>	<b>\$2,237</b>
<b>Total Expenses</b>	<b>\$5,524</b>	<b>\$5,524</b>	<b>\$5,824</b>	<b>\$5,825</b>	<b>\$5,826</b>	<b>\$6,527</b>	<b>\$5,902</b>	<b>\$6,153</b>	<b>\$8,905</b>	<b>\$5,906</b>	<b>\$6,113</b>	<b>\$7,158</b>	<b>\$75,187</b>	<b>\$6,265.58</b>
Difference (available for spending, saving, and investing)	\$0	\$0	\$0	\$0	\$0	-\$700	\$0	-\$250	\$0	\$0	-\$205	-\$1,250	-\$2,405	
Revolving savings withdrawals						700		250			205	200	1355	
Uncovered shortfall	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	-\$1,050	-\$1,050	

**Table 3.9** Cash-Flow Calendar for Harry and Belinda Johnson

Month	1 Estimated Income	2 Estimated Expenses	3 Surplus/Deficit (1 – 2)	4 Cumulative Surplus/Deficit
January	\$ 5,524	\$ 5,524	\$ 0	\$ 0
February	5,524	5,524	0	0
March	5,824	5,824	0	0
April	5,825	5,825	0	0
May	5,826	5,826	0	0
June	5,827	6,527	–700	–700
July	5,902	5,902	0	–700
August	5,903	6,153	–250	–950
September	8,905	8,905	0	–950
October	5,906	5,906	0	–950
November	5,908	6,113	–205	–1,155
December	5,908	7,158	–1,250	–2,405
<b>Total</b>	<b>\$72,782</b>	<b>\$75,187</b>	<b>–2,405</b>	

**revolving savings fund** Variable budgeting tool that places funds in savings to cover large irregular or higher-than-usual expenses.

### Instant Message



#### Rules for Successful Budgeting

1. Keep it simple.
2. Make it personal.
3. Keep it flexible.
4. Be positive.

### Instant Message



#### Cut the Dollars Not the Pennies

Harvard law professor and bankruptcy expert Elizabeth Warren says that you should not cut out the coffee lattes to manage your money better. Instead of making penny cuts, enjoy the coffee and then make real dollar cuts elsewhere in your spending such as in housing, cars, preschool, child care, and health care. And cut back on the credit card charges.

expenses. The couple starts out the year with many expenses, resulting in deficits for the next six months. Later in the year, income usually exceeds expenses, but they are still faced with a deficit at year's end.

Effective management of cash flow can involve curtailing expenses during months with financial deficits, increasing income, using savings, or borrowing. If you borrow money and pay finance charges, the credit costs will further increase your monthly expenses.

For this reason alone, it is smart to “borrow from yourself” by using a **revolving savings fund**. This is a variable expense classification budgeting tool into which funds are allocated in an effort to create savings that can be used to balance the budget later so as to avoid running out of money. Establishing such a fund involves planning ahead—much like a college student does when saving money all summer (creating a revolving savings fund) to draw on during the school months. You establish a revolving savings fund for two purposes: (1) to accumulate funds for large irregular expenses, such as automobile insurance premiums, medical costs, Christmas gifts, and vacations, and (2) to meet occasional deficits due to income fluctuations.

Table 3.10 shows the Johnsons' revolving savings fund. When preparing their budget, the Johnsons realized that in June, August, November, and December they were going to have significant deficits. They decided to begin setting aside \$140 per month to cover the June deficit. To do so, they decided to wait to start building their emergency fund. By June they had \$700 in their revolving savings fund to cover the June deficit. Continued use of the revolving savings fund helped them meet the August and November deficits as well.

The Johnsons will still be \$1050 short in December. Lacking that much money, the couple has three alternatives: (1) use some of Harry's trust fund money to cover the deficit, (2) dip into their

**Table 3.10** Revolving Savings Fund for Harry and Belinda Johnson

Month	Large Expenses	Amount Needed	Deposit into Fund	Withdrawal from Fund	Fund Balance
January		\$ 0	\$ 140	\$ 0	\$ 140
February		0	140	0	280
March		0	140	0	420
April		0	140	0	560
May		0	140	0	700
June	Party and insurance	700	0	700	0
July		0	250	0	250
August	Vacation	250	0	250	0
September		0	215	0	215
October		0	190	0	405
November	Holiday gifts	205	0	205	200
December	Holiday gifts and vacation	1250	0	200	0
<b>Total</b>		<b>\$2405</b>	<b>\$1355</b>	<b>\$1355</b>	<b>−\$1050</b>

emergency savings in December, or (3) cut back on their expenses enough throughout the year to create sufficient surpluses. Ideally, the Johnsons want to have sufficient emergency funds by the end of the year to establish their revolving savings fund for the following year. Cutting back on expenses may be their best option.

### Action During Budgeting Period: Control Spending

**Budget controls** are techniques to maintain control over personal spending so that planned amounts are not exceeded. They give feedback on whether spending is on target and provide information on overspending, errors, emergencies, and exceptions or omissions. Following are examples of budget controls:

#### Monitor Unexpended Balances to Control Overspending

The number one method to control overspending is to monitor unexpended balances in each of your budget classifications. You can accomplish this task by using a budget design that keeps a declining balance, as illustrated by parts (a) and (b) of Figure 3.6 (page 89). Other budget designs, such as those shown in parts (c) and (d) of Figure 3.6, need to be monitored differently. As illustrated in parts (c) and (d) of the figure, simply calculate subtotals every week or so, as needed, during a monthly budgeting period.

**Budget for Shopping Trips** Set a budget for every shopping trip, and don't spend a penny more.

**Use a Subordinate Budget** A **subordinate budget** is a detailed listing of planned expenses within a single budgeting classification. For example, an estimate of \$1200 for a vacation could be supported by a subordinate budget as follows: motel, \$700; restaurants, \$300; and entertainment, \$200.

### Did You Know...

#### The Top 3 Financial Missteps in Budget Planning

People slip up in budget planning when they do the following:

1. Fail to plan for occasional, nonmonthly expenditures
2. Underestimate how much they spend each month
3. Use credit cards to "balance" their budget

**subordinate budget** Detailed listing of planned expenses within a single budgeting classification.