

## PART 2

## Building Wealta

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## chapter 5

## Cash Flow and Budgeting

Focus
This chapter describes the role of financial statements and planning concerns in the personal financial planning process. It shows how to prepare a personal balance sheet and a personal cash flow statement as well as how to develop a good record-keeping system and how to use ratios to interpret personal financial statements. It outlines a cash budget and its use to monitor and control spending. It puts a monetary value on financial goals uisin, time value of money concepts supplied in Appendix 5A.

All individuals and households need to arrage their financial affairs to ensure that their financial obligations can be metartd they can satisfy future plans for spending and saving. Setting financial oxis is critical if current and future commitments are to be secured. All individuals need to develop realistic budgets and to develop record systems to track sheyding and income. Importantly, learning to prioritise goals and having contiritent strategies are also critical for successfully managing personal financial activities.

Additionally, ratios cat be used to assess financial wellbeing. Financial advisers establish benchmarrs to compare ratios achieved by clients.

This chapter gity ys how financial reports and budgeting are used to achieve financial goar

## Learning objectives

After studying this chapter, students should be able to:
explain the role of financial statements and records in the financial planning process;

- prepare and interpret a personal balance sheet;
- prepare and interpret a personal cash flow statement.
- apply ratios to assess personal financial wellbeing; and
- apply goals to form budgets and review budget outcomes.


## Introduction

Financial plans, personal financial statements and budgets provide direction by helping you work towards specific financial goals. They provide control by bringing the various dimensions of your personal financial affairs into focus. Personal financial planning is about taking systematic steps towards fulfilling your financial goals.

To develop your financial plans, you must know where you stand financially. The reports, balance sheet and cash flow statement are essential to developing and monitoring personal financial plans. They show your actual results, allowing you to gauge your financial position at specific times and track your progress towards your financial goals. Knowing how to prepare and interpret personal financial reports is a cornerstone of personal financial planning. Without some standards to measure your financial condition, establishing financial goals and evaluating your progress towards those goals is difficult.

Financial planning and budgeting are the charts that show you the way, while personal financial statements are navigational aids to guide you to your destination. All are essential to sound personal financial management and achievement of personal and household financial goals.

The principal way to achieve the goals in your finanrial plan is with budgets detailed short-term financial forecasts that compare stimated income to estimated expenditures. Budgets allow you to monitor and cutrol expenditures and purchases, thereby providing the mechanism to carry out vour financial plans.

Figure 5.1 summarises the statement relationship in the personal financial planning process. Moving from plans to budgets + , actual statements, you can see how financial statements provide essential feedback o your financial plans and budgets. They show your progress towards your financiar goais and indicate whether you are staying within your budget.

The financial planning recess involves the following steps:

Step 1 Set financial goals.
Step 2 Frame finarcial pians and strategies to achieve goals.
Step 3 Install financial plans and strategies.
Step 4 Produce and implement budgets to monitor and control.
Step 5 Review financial statements to evaluate results of plans and budgets, taking corrective action as required.
Step 6 Update goals as personal circumstances change.

The financial planning process is circular. You start with financial goals, frame and install plans to reach them, monitor and control plans through budgets, and evaluate plan results. This leads you back to update your goals to better meet your current needs and revise your financial plans.
figure_5.1 Links and Feedback - Planning Process


Australians recognize the importance of managing and controlling their personal wealth. They get planning help from personal finance magazines like Smartinvestor and from personal finance software. With the increased complexity of financial products, many people turn to professional financial advisers for developing and in suling personal financial plans. Financial advisers provide a wide range of services, includinh preparing comprehensive financial plans that evaluate a client's total personal financil situation, or plans focusing on a specific concern, such as managing clients' investme this and retirement planning.

Most financial advisers charge a fee based on the eomplexity of the plan they prepare. Some financial advisers may earn commissions an some of the financial products they sell. Some work for large, established financial institutions that train their advisers to compete with the best financial advisers. Others mind small firms, promising high-quality advice for a flat fee or an hourly rate. Financial advisers help clients articulate their long- and short-term financial goals, systemnicatly plan for their financial needs, and assist in operating aspects of the plans. 1. addition to one-on-one financial planning services, some institutions offer compmised financial plans. These computerised plans, which are found on the internet, help clients develop plans to save for retirement, reduce taxes, or restructure investment fo tfolios.

The cost of financal planning services depends on the type of adviser, the complexity of your financial situation, and the services you want. A comprehensive plan is the most expensive. These costs may be well worth the benefits, especially for people who have neither the time, inclination, discipline or expertise to plan on their own.

Advisers, who have completed an approved course of study and earned a professional qualification, are generally a good point of reference. Certified Practising Accountants (CPAs), Chartered Accountants (CAs), investment managers, and other professionals without such certifications can provide sound financial planning advice in many instances.
Members of the Financial Planning Association of Australia (FPA) offer financial advice and planning services. Most financial advisers are honest and reputable, but there have been cases of fraudulent practices. It is therefore critical to thoroughly investigate a potential financial adviser, and preferably interview two or three, accessing financial networks and reputable banks to obtain a referral list.

The way an adviser is paid (fees, commissions, or both) should be one of your major concerns. You need to be aware of potential conflicts of interest when using an adviser
with ties to an insurance company, financial institution or bank. Advisers must always place their clients' interests ahead of their own. You may need to check with the Australian Securities and Investments Commission (ASIC) and the Australian Prudential Regulation Authority (APRA) to see if there are any pending lawsuits, bankruptcies or convictions for investment-related crimes connected with the potential adviser. You may also want to do some additional checking about the adviser within the local financial community. Homework is necessary before engaging the services of a professional financial adviser.

## The financial plan and Statement of Advice

A financial plan and Statement of Advice provide an individual or a family with a set of plans and recommendations to follow to reach a variety of specific financial goals. This plan is based on questionnaires and interviews about personal and financial circumstances: family profile (health, age, education, and similar information for each member); household income, expenses, investments, and debts; tax returns; insurance coverage; retirement programs; and estate plans. Other important information includes personal and family expectations; risk tolerances; and objectives.

On the basis of this information, the adviser helps the clierit tiame personal financial goals in general areas; for example, buying a home, reducing taxes, protecting against personal risk using insurance, selecting superannuation pidns, managing investments, and maximising the estate left to heirs. Such a professic 171 Statement of Advice includes the client's major financial goals, detailed strategies artd recommendations for each, and expected results.

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## Key planning considerations

Certain conditions call for special attention during the personal financial planning process. Changing job status, getting married, having children, losing a partner through divorce or death, and retirement - these and other stressful events are 'financial shocks' that require re-evaluation of your financial goals and plans. You should avoid making financial decisions at such times. It's important to postpone any action until you have had time to recover from the event and evaluate all your options carefully. People who receive large sums of money from severance and redundancy packages, retirement benefits, insurance policies, or when a loved one dies, are especially vulnerable.

## OPERATING TWO INCOMES

Dual-income partners are now a common feature of Australian households. Many depend on the second income to make ends meet, while for others it provides financial security. Often, however, the second income does not add as much as expected to the bottom line. With it may come higher expenses - such as child care, taxes, clothing, dry cleaning, transportation and school fees - that consume a large portic $n$ of the second income.

When analysing a second income, you must consider trie intangible costs (additional demands on your life, less time with family and hizier stress) and benefits (career development, job satisfaction and sense of worth). Hor instance, taking a part-time job while the children are young may not add much to household income, but it could keep the partner on a career track and ease the tran ition to full-time work later on.

For this reason, two-income househe tais should develop financial plans that consider the possibility of the loss of one income for any reason. The dual-income situation often complicates the establishment of a money management program. Partners need to decide how to allocate income to houschold expenditures, family financial goals and personal spending goals. Couples may experiment with different strategies until they find one that works best for them. Consiceration, of course, must be given to the amount each partner earns and various emsticrial and behavioural factors in their relationship.

## REVIEWING EMPLOYEE BENEFITS

Employers proyide a variety of employee benefits, ranging from health insurance to superannuation plans. These days, people rely on their superannuation arrangements for a large part of their future financial security.

Australians enjoy employee benefits packages that may include:
5. Cash Flow and Budgeting

Each package is different; some companies and industries are known for generous salary packages, while others offer far less attractive packages. In general, large firms can afford more benefits than small ones. Because employee benefits can affect your total after-tax compensation it is critical that you thoroughly investigate your employee benefits to choose those appropriate for your personal situation.

Recent changes to the rules on superannuation provide a strong incentive for employees to focus most of their package in superannuation, since tax liabilities have altered for retirement payments. If a taxpayer converts superannuation to pay a pension after age 60 from 1 July 2007, all the income earned by the superannuation fund and all the pension paid by the fund will be tax free. If the money is retained in a superannuation fund, the fund will continue to pay $15 \%$ tax. Governments are concerned about the tax benefits of superannuation. From time to time, governments will change tax obligations in the light of retirement demographics and tax-sharing improvements.

## MEETING LIFE CHANGES

Other situations that require special consideration include changes in marital status and the need to support grown children and/or elderly relatives. Mariage, divorce, or death of a partner result in the need to revise financial plans and monty management strategies. And, importantly, government policies to extend the retiiement age will have to be factored in to any plan and strategy.

Partners should discuss their money attitudes and financial goals and decide how to manage joint financial affairs before they get mrried. It's important to take an inventory of your financial assets and liabilities, includirs savings and cheque accounts; credit card accounts and outstanding bills; car, hear and life insurance policies; and investment portfolios. Each partner should have a card in his or her name to establish a credit record.

In the event of divorce, incomºnay decrease because child support payments cause one salary to be divided betwein two households. Single parents may have to stretch limited financial resources th meet added expenses such as child care. Remarriage brings additional financial consiaerations including decisions involving children from prior marriages and managitg the assets that each spouse brings to the marriage. Some couples find it helpful to derlop a prenuptial contract that sets forth their agreement on financial matters, such as the control of assets, their disposition in the event of death or divorce, and other important money issues.

Death of a partner is another change that greatly affects financial planning. The survivor may be overwhelmed by the need to take on financial responsibilities. Advance planning can minimise many of these problems. Life expectancy increases are also affecting planning decisions.

Partners should review all aspects of their finances regularly. Each partner should understand what is owned and owed, participate in formulating financial goals and investment strategies, and fully understand estate plans.

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## Financial statements

To frame realistic personal financial plans and strategies, we must know where we stand financially. Once the plans and strategies are in place, we then need a system for monitoring our progress. Personal financial statements can help in both stages by defining current financial conditions and enabling us to track changes in our financial position over time.
(?) Personal balance sheet: A summary of your assets, your liabilities and your net worth.

The personal balance sheet describes your financial position - the assets you hold, less the debts you owe, to arrive at your net worth - at a given point in time. It helps you track the progress you're making towards your goals, in building up your assets and/or reducing your debt. It is indispensable in setting, monitoring and revising financial plans.

## ? Personal cash flow statement: A financial statement that measures cash inflows and outflows.

The personal cash flow statement measures cash prformance over time. It tracks cash inflows, as well as cash outflows over a given period of time (usually a month or a year). A key ingredient in financial planning is gaining budgetary control over cash outflows. Without such control, you could fird yourself without the funds necessary to carry out your financial plans. The state ment provides a way to check actual outflows against the amounts budgeted. Correctire action can then be taken when discrepancies exist between the actual and budgead amounts.

The key function of financiarstatements is to summarise your financial condition as it actually exists and report on various financial transactions that have really occurred. On the other hand, financial plans deal with mapping out the future and, at first glance, may appear to be incomratible with financial statements because of their different time references. Yet the whole planning system will collapse without statements to provide feedback on your financial progress. You must look at how actual results compare with your plans. The following sections take a detailed look at the basic personal financial statements.

## BALANCE SHEET

The balance sheet summarises a person's (or family's) financial position at a certain point in time. A balance sheet is a snapshot taken of a person's financial position on one day out of the year. A balance sheet represents a summary of what you own (your assets) balanced against what you owe (your liabilities, or debts) and what you are worth (your net worth). The accounting relationship between these three categories is called the balance sheet equation and is expressed as follows:
Total assets = Total liabilities + Net worth

## Assets

Assets are the resources owned. They are mostly tangible, although some may be intangible. An item is classified as an asset regardless of whether it was purchased for cash or financed with debt. In contrast, an item that is rented is not shown as an asset, because it is actually owned by someone else.
? Assets: Assets are the resources owned and are largely tangible in a personal or household

All assets are normally recorded on the balance sheet at their fair market value, which may differ considerably from their original purchase price. Fair market value is either the actual value of the asset (such as money in a bank account) or the price that the asset can reasonably be expected to sell for in the open market (like a used car).

## Liquid assets

Liquid assets are those low-risk financial assets that are held irithe form of cash or can readily be converted to cash with little or no loss in value. These assets are held to meet the everyday needs of life. Cash can be held either in the iorm of cash on hand or in a demand deposit (bank account). Savings are also part af bee's liquid assets and can be held in such financial instruments as term deposits (savirgs accounts), money market deposit accounts or cash management trusts.

## Investments

Investments are assets that are acquirea order to earn a return rather than provide a service. These assets, which typicalr, consist largely of financial assets (shares, bonds and other types of securities), tend to neld for the anticipated future benefit they offer. Popular investment assets include: sinare, corporate and government bonds, certificates of deposit with maturities of greater than one year, shares in investment companies (especially managed funds), and real estate Business ownership, the cash value of insurance and superannuation funds and other investment vehicles such as commodities, financial futures and options represent still other forms of investment assets. Investment assets tend to be acquired to achieve long-term personal financial goals. They vary in marketability from easily saleable (shares and bonds) to not readily saleable (property and business ownership investments).

## Real estate and personal property

Real estate refers to immovable property: land and anything fixed to it, such as a house. Real estate may increase in value. Personal property is movable property such as cars, household furnishings and appliances, clothing, jewellery, home electronics, and similar items. Except for some kinds of older collectable cars, and perhaps jewellery and artwork, most types of personal property decline in value shortly after being acquired or put into use.

## Liabilities

Liabilities represent an individual's or family's debts. They result from credit purchases, credit card charges, instalment loans, or mortgages on housing and other real estate.

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A given liability is something that is owed and must be repaid in the future. Liabilities are generally classified as either current or long term. A current, or short-term, liability is any debt due within one year of the date of the balance sheet. A long-term liability is a debt due one year or more from the date of the balance sheet. The level and status of an individual's liabilities are given careful consideration by potential lenders because very high levels of debt and overdue debts generate adverse credit ratings. High level debt can be punishing if interest is a floating rate in a money market where interest rates are rising.
? Liabilities: Liabilities represent debt (what is owed).

## Current liabilities

Some current liabilities arise from charges for the purchase of consumable goods and services. Energy bills, rent, insurance premiums, taxes, medical bills, repair bills and all similar debts fall into this category. These bills are due to be paid in full upon receipt or by a specified date. Other current liabilities are open account credit obligations - the balances outstanding against pre-established credit lines, which are used io purchase various types of goods and services. For most people, such credit means the use of 'plastic' — that is, a credit card. The balances on some credit cards can be paid off over time with small 'minimum payments'; however, other cards require pascent in full upon receipt of the monthly statement. Another type of open account cledit is the line of credit offered by most banking institutions, which provides a pre anthorised amount of credit. Rather than use a credit card, you access the line of credit byriting a cheque or electronic debt against either your regular cheque account or a sfecial credit line set up at your bank or financial institution.

## Long-term liabilities

Debt obligations with final tadyment dates more than one year from the date of the balance sheet are classified as long-term liabilities. They typically include real estate mortgages, most constin instalment loans, and margin loans used to purchase securities. Real estate mortgace are loans associated with housing and other real estate purchases; they normally have lives of 20 years or more. They most commonly result from the purchase of a home but sometimes arise from real estate investments such as apartments or office buildings. Real estate mortgages are normally paid on an instalment basis. Consumer instalment loans include all debts (other than mortgages) for which a series of payments are required over a specified period of time. Instalment loans are generally used to finance such purchases as appliances, furniture and boats. Other types of long-term liabilities include single-payment bank loans, and margin loans on securities.

All types of loans must be shown on the balance sheet. Although most loans will fall into the category of long-term liabilities, any loans that come due within a year should be shown as current liabilities. Examples of such short-term loans include a six-month, single-payment bank loan or a nine-month consumer instalment loan for a refrigerator. Regardless of the type of loan, only the latest outstanding loan balance should be shown as a liability on the balance sheet because at any given point in time it is the latest balance still due, not the initial loan balance, that matters. Another important and closely related
point is that only the principal portion of a loan or mortgage should be listed as a liability on the balance sheet. In other words, you should not include the interest portion of your payments as part of your balance sheet debt. The principal actually defines the amount of debt you owe at a given point in time and does not include any future interest payments.

## Net worth

Net worth is the amount of actual stake or equity an individual or household has in owned assets. It can be viewed as the amount of money that would remain after selling all owned assets at their estimated fair market values and paying off all liabilities (assuming there are no transaction costs). The balance sheet must 'balance' so that total assets equal total liabilities plus net worth. Alternatively, this can be expressed as net worth equals total assets minus total liabilities. Net worth is easily calculated by subtracting total liabilities from total assets. If net worth is negative, then financial stress willbeexperienced.

$$
\text { Net worth }=\text { Total assets }- \text { Total liabilities }
$$

? Net worth: Net worth is the difference between what is owned and what is owed.

Net worth typically increases over the life cycle of aninaifual or household. For example, the balance sheet of a student will probably be fairly simple. Assets would include modest liquid assets (cash and savings accounts) and peronal property, which may include a car. Liabilities might include utility bills, perhaps some credit obligations, personal loans and HECS liability. Net worth would typicity be very low, because assets are small in comparison to liabilities. A graduate finaricial analyst would have more liquid assets and personal property, may have starte ${ }^{4}$ to investment program, and may have purchased a home unit. Net worth would be rising but may still be low due to the increased liabilities associated with real estate drid personal property purchases. The higher net worth of a career couple with no children would reflect a greater proportion of assets relative to liabilities as theysave oretirement.

With long-tern tinancial planning, the level of net worth is important. Once a goal of accumulating a certain level or type of wealth has been set, progress towards that goal is best analysed by regularly reviewing net worth. For illustration, Table 5.1 presents the Household Balance Sheet for Australia as averaged across the total population 2009/10.

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TABLI_5.1 $\begin{aligned} & \text { Australian Household Balance Sheet 2009/2010 [Average } \\ & \text { Total Population] }\end{aligned}$


## BALANCE SHEET PREPARATION

Table 5.2 presents a hypothetical balance sheet prepared for the Mead household on 31 December 2013. You should prepare your personal balance sheet regularly, preferably every three to six months. Begin by listing assets at their fair market value as of the date you are preparing the balance sheet, using the categories mentioned earlier. To determine the fair market value of liquid and financial assets, use bank account records and investment account statements. The values of homes and cars are easier to estimate, because there are published sources of information, such as advertisements for comparable homes and Glass's guide for used car values. Certain items - antiques, homes, jewellery and artwork - may appreciate, or increase in value, over time. The values of other assets - cars and most other types of personal property - depreciate, or decrease in
value, over time. Insurance policies for home contents provide current values of valuables such as jewellery and paintings.
table_5.2 Mead Household Balance Sheet as at 31 December 2013

Assets


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Assets


Next, list all current and long-term liabilities, using the categories mentioned earlier. You should show all outstanding charges, even if you have not received the bill, as current liabilities on the balance sheet. For example, assume that on 23 jule you used your credit card to charge $\$ 640$ for a set of tyres. You typically receive yourbill around the 10th of the following month. If you were preparing a balance sheet date 30 June, the $\$ 640$ should be shown on it as a current liability, even though the bill wot tarrive until 10 July. Remember to list only the principal balance of any loanobligation.

The final step in the preparation of youn bance sheet is to calculate net worth. Subtracting your total liabilities from your taial assets results in your net worth, which reflects the equity you have in your assets

## Balance sheet for mead dou'sehold

The relationship between assets, tabilities and net worth and the general format of the balance sheet is perhaps be Hrustrated with an example. We now refer to the financial statements of the Mead household couple, Tom and Mary, whose balance sheet as of 31 December 2013 aprears in Table 5.2.

They live in a s.uurb of Perth, were married in 2008 and have no children. Tom is 30 years old and is a contractor for the mining industry. He anticipates increased income over the 2013-16 period. Mary is 28 and holds a degree in business and works at an advertising agency. The Meads live in their own house, which they purchased in October 2008. They plan to have children, but for now they want to devote their efforts towards developing some degree of financial stability and independence.

Given their ages, the Meads' asset position appears sound. Their key asset is their house, and they also have investments and appear to have adequate liquid assets to meet their bill payments and cover small, unexpected expenses. However, their financial position cannot be accurately measured without examining their debts.

The Meads' primary liability is the $\$ 315,000$ mortgage. Their current liabilities, most of which must be paid over the next month, total $\$ 6,000$. Other debts include car, furniture and education loans, plus a personal loan from their parents. Comparing the

Meads' liabilities to their total assets provides a more realistic view of their current wealth position.

The Meads' net worth is $\$ 465,000$. By calculating their net worth at specified points in time, they can measure how their financial plans and decisions affect their wealth position. A large or increasing wealth position is preferable to a low or declining one.

## CASH FLOW STATEMENT

The balance sheet describes a person's or family's financial position at a given point in time. The cash flow statement captures the various financial activities that have occurred over time, normally over the course of a year, although it technically can cover any time period (eg, monthly). This statement shows actual results over time and allows for their comparison to budgeted financial goals. The statement also evaluates the amount of saving and investing that has taken place during the time period covered.
? Cash flow statement: A statement that measures cash inflows and outflows.

The cash flow statement consists of three major parts: cash infow, cash outflow and cash surplus (or deficit). A cash surplus (or deficit) is the difforence between inflows and outflows. The statement is prepared on a cash basis, which means that only transactions involving actual cash inflows or actual cash outflows arecorded. The term cash is used in this case to include not only coin and currency bu+also cheques drawn against demand deposits and savings accounts, as well as electionic direct charges (debits) and transfer payments.

The cash flow statement for househ isvaries from the income statement prepared for business. Household prospects depcid on cash outcomes, hence the emphasis on cash-only transactions, including ait sources of inflows and outflows for the period under review.

Cash flow patterns char depending on where an individual or a family is in the life cycle. Both revenue and speriding levels rise steadily to a peak in the 45-60 age bracket. On average, persons ith th age group, whose children are typically in tertiary education or no longer at hom, generally have the highest level of cash inflow; they also spend more than other age groups on entertainment, dining out, transportation, education, insurance and charitable contributions. Families in which the parents are in the 35-45 age bracket have slightly lower average levels of cash flows but very different spending patterns. Because they tend to have school-age children, they spend more on food at home, housing, clothing, and other personal needs.

## Cash Inflows

Cash inflows include earnings received as wages, salaries, self-employment income; bonuses and commissions; interest and dividends received from savings and investments; and proceeds from the sale of assets. Other income items include pension or annuity income; rent received from leased assets; child support; scholarships, grants, and social security received; tax refunds; and other miscellaneous types of income.

Common sources of cash that should be shown on the cash flow statement are listed in Table 5.3.

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## table_5.3 Sources of Cash Inflow

For most employed people, the vast majority of total cash inflow is made up of wages and salaries.
Wages and salaries
Self-employed income
Bonuses and commissions
Pensions and annuities
Investment income:
Interest received
Dividends received
Proceeds from sale of securities
Rents received from leased assets
Child support received
Scholarships and grants received
Social security received
Other income:
Proceeds from sale of assets other than securities
Tax refunds
Miscellaneous (gifts, royalties, and so on)

## Cash outflows

Cash outflows represent all cash outlays and can be categorised by the types of benefits they provide, as shown in the fornwing Financial Note 5.1. Usual household outlays include:

- living expenses (such as rent, food, medical expenses, repairs, insurance and utilities);
- asset purchases (like stános, furniture, appliances and clothing);
- tax payments; and
- debt payments (on mortgages, instalment loans, credit cards, and so on).

Some are fixed outlays that usually are contractual, predetermined, and involve equal payments each period (typically each month). Examples include mortgage and instalment loan payments, insurance premiums, union dues, monthly savings or investment programs, and cable television fees. Others (such as food, clothing, utilities, entertainment and medical expenses) are variable outlays, because their amounts are always changing and can be reduced in troubled times.

Just as only the amounts of cash actually received are shown as inflows, only the amounts of money actually paid out in cash are listed as outflows. If an item, particularly an asset, is acquired through borrowing, only the net or actual dollar amount of money paid out (ie, purchase price minus amount borrowed) is included as an outflow. Payments against these loans are shown on the cash flow statement in the period they are actually made. Financial Note 5.1, below, sets out household outlays in Australia for 2009/10.

For Australians, transport, housing, energy, education and food expenses are expected to grow steeply in the 2012-16 period. Below is shown weekly household spending averaged for all households surveyed by the ABS. The average household spent $\$ 1,454$ a week when the mean gross household income per week was $\$ 1,688$.


When developing your list of outlays for the year, remember to include the amount of income taxes withheld from your pay as well as any other payroll deductions taken out, such as for health insurance, savings plans, superannuation contributions and professional/ union dues. These deductions (from gross wages, salaries and commissions) represent personal outlays even if they do not involve the direct payment of cash by you.

## Cash surplus or deficit

The third component of the cash flow statement captures the net result of the period's financial activities. The cash surplus (or deficit) for the period is obtained by subtracting
total outflows from total inflows and allows you to determine at a glance how you did financially over the period. The figure can be zero, positive, or negative. A positive figure indicates that the outflows were less than inflows and therefore a cash surplus resulted. A negative value indicates that the period's outflows exceeded inflows, thereby resulting in a cash deficit.

A cash surplus can be used for savings or investment purposes, to acquire assets, or reduce debt. Additions to savings or investments will result in increased future income, while payments on debt will have a favourable effect on cash flow by reducing future expenditures. In contrast, when a cash deficit occurs, the shortfall must be covered by either drawing your savings or investments down, reducing assets, or borrowing. Either strategy will have undesirable effects on your financial future.

The cash surplus (or deficit) figure does not necessarily indicate that funds are simply lying around waiting to be used. Because the cash flow statement reflects what has actually occurred, the disposition of the surplus (or deficit) is reflected in the asset, liability, and net worth accounts on the balance sheet. For example, if the surplus were used to make investments, it would be represented by an increase in the assets. If it were used to pay off a loan, it would be represented by a reduction in that liability.

The effect of a cash surplus on the cash flow statement is to increase the net worth account on the balance sheet. This increase results because an asset increases without a corresponding increase in any liability. Note that this culd be any asset, from a savings or investment account to a new car or room add, tiun. In order for the balance sheet equation to balance, an increase in assets withor any increase in liabilities must result in an increase in net worth. Even if the cash sumen is used to reduce a liability, an increase in net worth will still result.

In summary, cash surpluses, regararess of how used, result in increases in net worth, and cash deficits, regardless of how eovered, result in decreases. Increases in net worth are associated with growing financiat strength; obviously, cash deficits indicate declining financial strength.

## CONSTRUCTINGTHE CASH FLOW STATEMENT

Table 5.4 sets out a cusin flow statement and is dated to define the period covered. The first set of entries includes all cash inflows from items and a total inflow figure. Next, the outflows are listed and totalled. The final figure, representing the cash surplus (or deficit), is the result of subtracting total outflows from total inflows. This entry constitutes the bottom line of the statement and basically is a summary of the net cash flow that resulted from the financial activities during the designated period.

When preparing your statement, determine your inflows from all sources for the chosen time period. Next, establish meaningful outflow categories. A category of outflow that is difficult to keep track of is all the items in a month that you pay with cash. Those items typically include parking, lunches, movies and so on. Most people do not have the desire or discipline to write down every dollar spent. One suggestion might be to review your withdrawals from your bank account including EFTPOS and ATM transactions. Let a week go by and see how much money is missing. Try to reconstruct in your mind what you spent during the week, and write it down on your calendar to the nearest $\$ 5$. If you can't remember, then try the exercise over shorter and shorter periods of time until you can.

## table_5.4 Cash Flow Statement of the Mead Household

Tom and Mary Mead for the year ended 31 December 2013
Inflows - cash received in the
period from all sources


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Tom and Mary Mead for the year ended 31 December 2013

| Outflows - outlays made in cash in <br> the period to meet all obligations <br> and commitments | Recreation and entertainment <br> Vacations <br> Other recreation and entertainment <br> Other items <br> Books and records, videos | 3,000 |
| :--- | :--- | :--- |
|  | Gifts <br> Other loan payments <br> Loan payment to parents <br> [ii] Total Cash Outflow <br> Cash Surplus (or Deficit) <br> [i] - [ii] |  |

The final step is to subtract total outflows frem. total inflows. This gives the cash surplus (a positive number) or deficit (a negative nimber). A number of computer software packages are now available that simplify the jeiof preparing personal financial statements and doing other personal financial manarernent and planning tasks.

## Cash flow statement

The Meads' cash flow statemert tor the year ended 31 December 2013 is provided in Table 5.4, above, and illusitates the relationship between total cash inflows, total cash outflows, and cash surplas (or deficit). This statement, which was prepared using the background material $p_{1}$ osented earlier along with the Meads' balance sheet, is best evaluated by separact'y analysing their inflows, outflows, and cash surplus (or deficit).

Tom's wages clearly represent the family's chief source of inflow, although Mary is making a major contribution. Other sources of cash include interest received on their savings accounts and bond investments and dividends received. Total inflow for the year ended 31 December 2013 amounts to \$178,000.

The Meads' major cash outflows are their home mortgage, food, clothing and income taxes. Other sizeable outflows during the year included home repairs and additions, gas and electricity, car loan payments and expenses, insurance, tuition, and education loan payments. Total outflows for the year were $\$ 146,219$.

At year end there is a cash surplus. This surplus could be used to increase savings, invest in bonds or other assets, or make payments on some outstanding debts. The correct strategy depends on their financial goals. If a cash deficit had resulted, they would have had to withdraw savings, liquidate investments, or borrow an amount equal to the deficit in order to meet their financial commitments (ie, 'make ends meet'). With their cash surplus of $\$ 31,781$ they have made a positive contribution to their net worth.

## Keeping records and reviewing performance

The balance sheet and the cash flow statement provide most of the information you need to examine your financial position, monitor your financial activities and track the progress you're making towards your financial goals. Regardless of the particulars surrounding your situation, it should be clear that a thorough understanding of your current financial status will enable you to better direct your financial plans and activities towards your personal financial goals.

Many people update their financial statements every three or six months. To simplify the preparation process, use a financial record book or financial software that you update continuously and which summarises all your financial transactions in sections for assets, liabilities, sources of cash inflow and outflows, that contain separate accounts for each item in the section. Whenever any accounts change, make an appropriate entry. For example, if you buy a DVD player for $\$ 300$ cash, record it as both an asset and an outflow. Then you'd show the DVD player on your balance sheet as an asset (at its fair market value) and as a $\$ 300$ outflow on your cash flow statement. If you borrowed to pay for the DVD player, the loan amount would be a liability on the balance sheet and any loan payments made during the period are shown on the cash flow statement. You'd keep similar records for other transactions. Software packizes allow you to maintain an electronic record.

## RECORD MAINTENANCE

A good record-keeping system helps yo, manage and control your personal financial affairs. Up-to-date records are essential forpreparing accurate personal financial statements and budgets. With organised financiai records, you'll pay less to your tax agent, not miss any tax deductions, and save taxes when you sell a house or securities. Good records make it easier for a partner or rela intio manage your financial affairs in an emergency. To that end, you should prepare a comprehensive list of these records, their locations, and your key advisers (financial atviser, banker, accountant, solicitor, doctor) for family members.

Your system 'oosn't need to be complex to be effective. You'll need a safe deposit box, records of accounts and a set of files (manual or electronic) with general categories. Tax planning records for income and deductions need separate files, as do individual fund and broker account records. Hard-to-replace records go in the safe deposit box, with photocopies and a list of what's in the box kept for access. These include share records, house deeds, purchase and sale documents on all major assets owned, birth and marriage certificates, divorce records, and powers of attorney. Written inventories, appraisals, and photos or videos of your home and its contents also belong in your safe deposit box, to yerify their existence and condition in the event of damage. Once you set up your files, be sure to go through them at least once a year and throw out unnecessary items. Financial Note 5.2, below, summarises major record sets, both manual and electronic.

Financial Law in Australia

## financial note_5.2 Effective Set of Records

Most financial records are kept in one of three places: a home file (manual), a safe deposit box and a home computer

| Home file |  | Safe deposit box |
| :---: | :---: | :---: |
| - Current resume <br> - Employee benefit information <br> - Birth certificates | Money management records <br> - current budget <br> - Recent personal financial statements (balance sheet) <br> - List of financial goals <br> - List of sale deposit box contents | - Birth, marriage \& death certificates <br> - Passports <br> - Adoption, custody papers <br> - Serial numbers of expensive items |
| Tax records <br> - Receipts for tax-deducted items <br> - Records of taxable income <br> - Past Income tax returns \& documentation | Financial services records <br> - Cheque book <br> - Bank statements <br> - Savings statements <br> - Location Information \& number of safe deposit box | - certificate of deposit <br> - List of cheque \& savings account numbers \& financial institutions <br> Ciedit contacts <br> List of credit card numbers |
| Credit records <br> - Payments files <br> - Receipts <br> - Monthly statements <br> - List of credit account numbers \& telephone number if issuers | Consumer purchase \& car recorci <br> - Warranties <br> - Receipts for major purchioses <br> - owner's manuals for n. ajor appliances <br> - services \& renair records <br> - car registratic: | - Mortgage papers title deed <br> - car papers <br> - List of Insurance policy numbers \& company names <br> - Bond \& CHESS certificates <br> - Pin security numbers |
| Housing records <br> - Lease (if renting) <br> - Property records <br> - Home repair, home improvement receipts | Insurance records <br> Crininal insurance policies <br> ist of insurance premium amounts \& due dates <br> - Medical information (health history, prescription drug information) <br> - Claim reports | Personal computer system |
| Investment records <br> - Records of share, bond \& managed fund purchases <br> \& sales <br> - List of investment certificates numbers <br> - Brokerage statements <br> - Dividend records <br> - Company announcements <br> - superannuation and pension details | Estate planning \& retirement record <br> - Wills <br> - super plan information <br> - Trust agreements | - Current \& past budgets <br> - Summary of cheques written \& other banking transactions <br> - Past income tax returns prepared with tax preparation software <br> - Account summaries \& performance results of investments <br> - Computerised version of Wills, estate plans \& other documents |

[^0]
## MONITORING FINANCIAL PROGRESS

When you prepare your financial statements, you should analyse them to see how well you are doing in light of your financial goals. For example, with a cash flow statement, you can compare actual financial results to budgeted figures to make sure you have your spending under control. Likewise, comparing a set of financial plans to a balance sheet will reveal if you are meeting your savings and investment goals, reducing your debt, or building up a retirement fund.

In addition to assessing your future, financial statements help you track your progress over time - that is, you can compare current to historical performance to find out if things are improving or getting worse. You can usually do this by calculating certain financial ratios to evaluate your financial performance over time. Moreover, if you apply for a loan, the lender probably will look at these ratios to judge your ability to carry additional debt. Four important money management ratios include:

1 solvency ratio;
2 liquidity ratio;
3 savings ratio; and
4 debt service ratio.

The first two are associated primarily with the barare sheet, while the last two relate primarily to the cash flow statement.

## Balance sheet ratios

## Solvency ratio

When reviewing your balance sheet, you should be most concerned with your net worth at a given point in time. You are lechnically insolvent when your total liabilities exceed your total assets, that is, when you have a negative net worth. The solvency ratio shows, in percentages, your degre of exposure to insolvency, or how much 'cushion' you have as a protection against aso vency. It is calculated as follows:


$$
\text { Solvency ratio }=\frac{\text { Total net worth }}{\text { Total assets }}
$$

The Meads' solvency ratio in 2013 is:

$$
\frac{\$ 465,000}{\$ 796,000}=0.58 \text { or } 58 \%
$$

This tells us that Tom and Mary could withstand about a 58\% decline in the market value of their assets before they would be insolvent.

## Liquidity ratio

The solvency ratio gives an indication of the potential to withstand financial problems. It does not deal directly with the ability to pay current debts. This issue is addressed with the
liquidity ratio, which shows how long you could continue to pay current liability expenditures with existing liquid assets in the event of cash flow decline. It is calculated by dividing liquid assets by total current liabilities. The ratio is computed as follows:

$$
\text { Liquidity ratio }=\frac{\text { Liquid assets }}{\text { Total current liabilities }}
$$

The Meads' liquid assets total $\$ 6,300$. Their current liabilities of bills and account credit balances total $\$ 3,000$. The portions of their loan payments due within one year total $\$ 57,684$ ( $\$ 50,864$ in mortgage payments $+\$ 4,520$ in car loan payments $+\$ 800$ in furniture loan payments $+\$ 900$ in other loan payments $+\$ 600$ in loan payments to parents); all found on the cash flow statement. Adding their total current liabilities $(\$ 6,000)$ to the current portion of their loans $(\$ 57,684)$ yields total current debts of $\$ 63,684$. Thus, the Meads have a liquidity ratio of:

$$
\frac{\$ 6,300}{\$ 63,684}=0.098 \text { or } 9.8 \%
$$

This ratio indicates that the Meads can cover only about $98 \%$ of their existing one-year debt obligations with their current liquid assets. In other wor a they have just more than one month (one month is $8.4 \%$ ) of coverage. If an unexpecied event curtailed their cash inflow, their cash reserves may be exhausted quickly. Ther is no hard and fast rule as to what this ratio should be. Some advisers like to see a three-montibuffer for normal households, or about $25 \%$.

The amount of cash reserves will var with your personal circumstances and 'comfort level'. Another useful liquidity guideline is to have a cash fund equal to three to six months of after-tax cash inflow available to civer living expenses. If you feel that your job is secure and/or you have other potentia, cources of cash, you may be comfortable with three or four months in reserve. If you tend to be very cautious financially, you may want to build a larger fund. In troubled economic times, you may want to keep six months or more of cash in this fundas pr ntection should you lose your job.

## Cash flow stafement ratios

## Savings ratio

When evaluating your cash flow statement, you should be concerned with the bottom line, which shows the cash surplus (or deficit) resulting from the period's activities. You can relate it to cash income by calculating a savings ratio, which is done most effectively with after-tax cash flow, as follows:

$$
\frac{\text { Cash surplus }}{\text { Savings ratio }}=\text { Total cash inflow }(\text { after tax })
$$

For the Meads, the savings ratio is:

$$
\frac{\$ 31,781}{(\$ 178,000-16,430)}=0.196 \text { or } 19.6 \%
$$

The Meads saved about $19.6 \%$ of their after-tax cash income, which may be on the high side (families, on average, save about $5 \%$ ). How much to save is a personal choice. Some families would plan much higher levels, particularly if they are saving to achieve an important goal, such as buying a home.

## Debt service ratio

While maintaining an adequate level of savings is obviously important to personal financial planning, so is the ability to pay debts promptly. In fact, debt payments have a higher priority. The debt service ratio allows you to make sure you can comfortably meet your debt obligations. It is calculated as follows:

$$
\text { Debt service ratio }=\frac{\text { Total monthly loan payments }}{\text { Monthly gross (before }- \text { tax) cash inflow }}
$$

This ratio excludes current liabilities and considers only mortgage, instalment and personal loan obligations. On an annual basis, the Meads' obligations total $\$ 57,684$ ( $\$ 50,864$ in mortgage payments, $\$ 4,520$ in car loan payments, $\$ 800$ in furnitur loan payments, $\$ 900$ in other loan payments, $\$ 600$ in loan payments to parents) The Meads' total monthly loan payments are about $\$ 4,807$ ( $\$ 57,684 / 12$ months) Dividing the annual gross cash inflow of $\$ 178,000$ by 12 months gives a monthly gross (i) The debt service ratio is calculated as follows:

$$
\frac{\$ 4,807}{\$ 14,83 ?}=0.32 \text { or } 32 \%
$$

Monthly loan payments account ff, toout $32 \%$ of the Meads' gross cash inflow. This debt service ratio indicates that the $\mathrm{N} \cdot \mathrm{a}^{2} \mathrm{~d}$ s may have some difficulty in meeting their monthly loan payments. From a finarciai planning perspective, you should try to keep your debt service ratio somewhere under $30 \%$ or so, because that's generally viewed as a manageable level of debt and, of course, the lower the debt service ratio, the easier it is to meet loan payments as they chne due.

## CASH FLOWS AND TIME VALUE OF MONEY

Time value considerations complement ratio analysis for wealth understanding. Many household decisions involve cash flows that occur in different time periods. The tools and techniques used to compare cash flows are outlined in Appendix 5A. Many decisions affecting financial conditions of households must consider the time value of money, especially saving, investing, borrowing and credit decisions. The time value process makes all dollar values comparable and the process moves all dollar flows either back to the present or out to a future date. Appendix 5A on the time value of money is essential reading for effective financial decision-making in personal and household settings.

Web calculators: Many banks supply online calculators to undertake time-value calculations.

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## Financial goals

Setting financial goals is the first step in the personal financial planning process. Once set, these goals provide direction for your financial plans. But just as you cannot prepare plans for attaining goals that are not yet formulated, neither can you start the financial planning process without knowing your current financial position. This is accomplished using your personal financial statements. After evaluating your current financial position, you can establish both long-term and short-term goals which, by their nature, will change frequently. Table 5.5 presents some typical short- and long-term goals of persons in different life situations. It is important to involve your immediate family in the goalsetting process in order to eliminate potential future conflicts. By having each family member effectively 'buy into' these plans, a cooperative team effort should result, thereby improving the family's chances of achieving its goals. Once your goals have been defined and approved, appropriate cash budgets can be prepared. Normally, long-term financial goals are set first, followed by a series of corresponding short-term goals.

## table_5.5 Financial Goals Change over a Lifetime

Financial goals are not static but change continually over a lifotime. Here are listed some typical long-term and short-term goals for a number of different versonal situations.
Personal Situation
Undergraduate

- Repay HECs loans
- Begin an investment program
- Buy a flat

Single, mid-20s

- Begin an MBA
- Build an investment porifolio
- Start a superannuation fund
- Build an emergency fund
- Take a vacation
- Reduce expenses $10 \%$

Married couple with children, late 30s

- Buy a second car
- Buy a larger home
- Diversify investment portfolio


## Personal Situation

## Long-term Goals

Married couple with grown children, mid-50s

- Decide whether to relocate upon retirement
- Retire at age 62
- Sell house and buy smaller residence
- Travel to Europe

Short-term Goals

- Find a job
- Rent an apartment
- Get a bank credit card
- Buy a car
- Prepare a budget
- Buy a new television
- Get additional job training
- Trade in car
- Repaint house
- Increase second income from part-time to full-time job
- Review life, disability and health insurance
- Buy new furniture
- Shift investment portfolio into incomeproducing securities
- Review skills
- Take vacation


## SETTING LONG-TERM FINANCIAL GOALS

Long-term financial gcat should indicate the individual's or family's wants and desires for the next two to five rears out to the next 30 or 40 years. Of course, many people find it difficult to pinpoint exactly what they will want 30 or so years from now; however, they should be able to establish some tentative long-term financial goals. Many long-term goals will change over time. Although an individual's long-term goals may change, most shortterm goals will remain much the same: to make regular contributions to savings or investments to accumulate the desired net worth.

## Dollar value on financial goals

Some financial goals can be defined in rather general terms. Others should be defined more precisely, perhaps with fairly specific dollar values. Consider, for example, the goal of buying your first home in six years. The first question is how much to spend. Let's say that you have done some 'window shopping' and feel that, taking future inflation into consideration, you will have to spend about $\$ 350,000$ to get the kind of house you like. Of course, you will not need the full amount, but given a $20 \%$ down payment ( $\$ 350,000$ $\times .20=\$ 70,000)$ plus legal costs, you estimate that you will need around $\$ 75,000$. You now
have a fairly well-defined long-term financial goal: to accumulate $\$ 75,000$ in six years to buy a home costing about $\$ 350,000$.

The next question is how to get all that money. You will probably accumulate it by saving or investing a set amount each month or year. You can easily estimate how much to save or invest each year if you know your goal and what you expect to earn on your savings or investments. In this case, if you have to start from scratch (ie, have nothing saved today) and estimate that you can earn about $10 \%$ on your money, you will have to save or invest about $\$ 9,720$ per year for each of the next six years to accumulate $\$ 75,000$ over that time period. Now you have another vital piece of information: you know what you must do over the next six years in order to reach your financial goal.

To correctly compare dollar values occurring at different points in time, you need to understand the time value of money, as outlined in Appendix 5A.

Financial goals are most effective when set in reference to certain goal dates. Goal dates are target points in the future at which time certain financial activities are expected to be concluded; they may serve as checkpoints in the progress towards some financial goals or as deadlines for the achievement of others.

It is usually helpful to set goal dates at intervals of two ofive years for the first 10 years or so and at five- to 10-year intervals thereafter. As tine passes, adjustments to the financial plans may have to be made; or, as desired financiai outcomes are realised, goals may also have to be changed. If the goals appear to be toc high, they must be revised and made more realistic. If they are too low, they shout je evaluated and set at a level that will force the individual or family to make finarcially responsible decisions rather than squandering surplus funds.

## SHORT-TERM GOALS

Short-term financial goals are set eán year; they cover a 12-month period and should be consistent with established long-tarm goals. These short-term goals become the key input for the cash budget - a toci sed to plan for short-term income and expenditures. The individual's or family's imnediate goals, expected income for the year, and long-term financial goals must al' be taken into account when defining short-term goals. In addition, consideration mus le given to the latest financial position, as reflected by the current balance sheet, and spending in the year immediately preceding, as reflected in the cash flow statement for that period. Short-term planning should also include establishing an emergency fund with three to six months' worth of cash inflow.

The degree of effectiveness in reaching short-term goals significantly affects the ability to achieve long-term goals. If short-term goals are not attained, the likelihood of achieving long-term goals is greatly reduced. In setting short-term goals, current desires should not override the requirements for long-term goals. The general tendency to prefer current consumption over future consumption may be the greatest challenge when setting short-term goals. Short-term sacrifices may be necessary to provide for a comfortable future; realising this fact 10 or 20 years too late may make some important financial goals unattainable.

## The financial goals of the meads

Earlier, the Meads' financial data was used to develop their financial statements. We continue to use their financial data to illustrate various aspects of financial planning and budgeting. The Meads' long- and short-term financial goals, which they set in December of 2013, are described in the following sections.

Because Tom and Mary are 30 and 28 years old, respectively, they have set their longest term financial goal 30 years from now, when they want to retire. The top portion of Table 5.5 presents a summary of the Meads' long-term financial goals. They have set their goal dates arbitrarily at 2013, 2016, 2022, 2026, 2032, 2036 and 2043. As time passes, they will probably adjust both the goals and the dates. Although most of their goals do not have dollar amounts attached, Tom and Mary can still use them to lend general direction to their short-term financial plans. In the planning process, the Meads have made estimates of the costs of achieving their various long-term goals and then set the short-term goals necessary for attaining them.

In the final week of December 2013, Tom and Mary set their short-term financial goals for the coming year. They considered three factors: (1) theircurrent financial position as reflected in their balance sheet; (2) their latest cash flow statement from which they were able to evaluate their spending requirements for 2013, and (3) their long-term financial goals. The Meads' short-term financial goals for the conong year, along with the dollar outlay required to achieve each of them, are given in tite bottom portion of Table 5.5.

To simplify the process of eliminating ounds in the event that sufficient funds are not available, the Meads have assigned priorities to their short-term goals. The first three items are considered necessities, and thi tourth is associated with their long-term net worth goal. The remaining items are etras, or luxuries, that the Meads would like to acquire during the year but probabiy can do without. Once they have prepared their budget, the Meads will be able to determine which of their short-term goals they can afford during the coming yeat.


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## 2016

- Begin fund for private schooling
- Save money for new home
- Buy 4WD vehicle (trade every 4 years)
- Diversify and increase investments
- Review life insurance

2022

- Buy new \$700,000 home
- Purchase new furniture
- Increase annual contribution to funds for schooling


## 2026

- Increase investments, retirement funds
- Purchase boat
- Take European vacation
- Accumulate net worth of \$810,000

2032

- Children in university
- Buy third car for children
- Remodel home
- Accumulate net worth of \$875,000
- Take vacation to USA


## 2036

- Children finish university
- Build retirement funds
- Investigate where to live upon retirement
- Accumulate net worth of \$950,000

2043
Retire from jobs
Sell home, buy townhouse

- Travel to China
- Accumulate net worth of \$1,000,000

Short-term Goals (for the coming year)

| Priority | Goal Description | Dollar Outlay |
| :--- | :--- | :---: |
| 1 | Buy new brakes for Ford | $\$ 425$ |
| 2 | Buy clothes for Mary | 2,500 |
| 3 | Buy suit and sport jacket for Tom | 1,650 |
| 4 | Accumulate net worth of 200,000* | - |
| 5 | Buy electric garage door opener | 350 |
| 6 | Take two-week vacation to Hawaii | 6,000 |
| 7 | Buy workshop equipment | 1,500 |
| 8 | Take ski trip to Snowy Mountains | 4,800 |
| 9 | Replace stereo system components | 1,450 |

*Because of numerous interactions, the dollar outlay requirea li, achieve this goal cannot be clearly specified.

## BUDGETING

Once you define your short-term firancial goals and financial condition, you can prepare a cash budget for the coming yea: A budget is a short-term financial planning report that helps you achieve your shat-term financial goals. As such, it also makes a positive contribution towards the achievement of your long-term financial goals.

## $?$ Budget: A calt projection based on forecasted cash flows for a future time period.

By carefully evaluating your current financial situation, spending patterns, and goals, you can develop a realistic budget consistent with your personal lifestyle, family situation, and values. As you go through the budgeting process, you will have to decide how to allocate your income to reach your financial objectives. The resulting budget will be a valuable money management tool that provides the necessary information to monitor and control your finances in a fashion consistent with goal achievement. If followed, your budget will help you accomplish two very important objectives: implementing a system of disciplined spending - as opposed to just existing from one pay to the next - and reducing needless spending so you can increase the funds allocated to savings and investments.

Typically, the number of inflow and outflow categories increases as you accumulate more assets and debts, and you have more family responsibilities. As you move through the life cycle, your financial situation will become increasingly more complex, thereby
further increasing the importance of financial planning activities such as budgeting. Not until retirement can you expect this process to begin to simplify.

Like the cash flow statement, a budget should be prepared on a cash basis; thus, we call this document a cash budget. A cash budget deals with cash receipts and cash outlays that are expected to occur in the coming year. For budgeting purposes, it makes no difference whether money is being spent on living expenses or on loan payments; in either case, an outflow of cash is involved, and therefore the amounts would be included in the cash budget.

On the other hand, an asset purchased on credit would not be included, at least not until loan payments were made. Basically, a cash budget contains annual estimates of inflows and outflows, including savings and investments. It is usually divided into monthly intervals, although in some cases other time intervals may be more convenient.

The cash budget preparation process has three stages: estimating inflows, estimating outflows, and finalising the budget. When estimating, you should take into account any anticipated changes in the cost of living and their impact on your budget components. If your inflow is fixed - not expected to change over the budgetary period - increases in various items of outflow will probably cause the purchasing power to deteriorate.

## Estimating inflows

The first step in the cash budget preparation process is to estimate inflows for the coming year. Because bills are most commonly rendered and Dall monthly, it is best to estimate inflow as well as outflows using monthly intervals. The forecast takes into consideration all inflows expected for the year; for example, the tale-home pay of both partners, expected bonuses or commissions, annuity income, and interest, dividend, rental and asset (particularly security) sale inflow.

## Estimating outflows

The second step in the cash heigeting process is by far the most difficult: preparing estimated outflows for the comung year. This is usually done using actual outflows from previous years, along with predetermined short-term financial goals. Good financial records, as discussed er for, make it easier to develop realistic outflow estimates. If you do not have past data, vou could re-examine old invoices and statements to approximate expenditures. Pay close attention to outflows associated with medical disabilities, divorce and child support, and similar special circumstances.

It is important that you become aware of your outlay patterns and how you spend money. In the absence of spending data, you can develop useful information by keeping track of your outflows over several months. Carefully study your spending habits to see if you are doing things that should be eliminated. Banks supply free software to reveal spending patterns.

In addition, you will probably find it easier to budget if you group them into several general categories, rather than trying to estimate each and every item. The percentage that you allocate depends on your age, lifestyle, and where you live. For instance, housing costs vary depending on location. Dining out generally is more expensive in metropolitan than rural areas; if you live in the suburbs, your commuting expenses may be higher than those for city dwellers.

Achievement of all short-term goals should be initially built into your estimates. To do this effectively, estimate the cost of achieving the goals as well as the timing of the

## 5. Cash Flow and Budgeting

outflows. Any current contributions towards achievement of long-term goals should also be qualified and appropriately scheduled into the budget. Equally important are additions to savings and investments, because planned savings should be high on everyone's list of goals. If the inclusion of all these items will not allow the budget to balance, you may have to remove some from the final budget. Always base estimated outflows on current price levels and then increase them by a percentage that reflects the anticipated rate of inflation.

## Finalising and Preparing the Cash Budget

After you estimate both inflows and outflows, you can finalise your budget by comparing projected inflows to projected outflows on month-to-month and annual bases. A balanced budget results when the total inflow for the year equals or exceeds total outflow. Budget preparation is complete once all monthly deficits are resolved and the total annual budget balances.

## The budget

The budget summary combines and summarises the schedules of estimated inflows and outflows. Usually the budget shows monthly figures as well as he annual total for each inflow and outflow item. When you have many categorie breaking the budget into separate schedules actually simplifies budget preparation. Admittedly, there is a lot of 'number crunching' in personal cash budgeting. As dilcissed earlier, personal financial planning software can greatly streamline the budge pieparation process.

Even if the annual budget balances, in cernin months outflows may exceed inflows, causing a monthly budget deficit. Likewise, 2 adget surplus occurs when inflows in some months exceeds outflows. Two remedies exist?

- shift outflows from months with biaget deficits to months with surpluses (or, conversely, transfer inflows if pascidle from months with surpluses to those with deficits); or
- use savings, investments or borrowings to cover temporary deficits.

Solutions exis to resolve the more difficult problem of an annual budget deficit. The first is to either liquidate enough savings and investments or borrow enough to meet the total budget shortfall for the year. Obviously, this action is not recommended, because it violates the objectives of budgeting: lesser outflows at a level that allows you to enjoy a reasonable standard of living while making progress towards your long-term goals. Reducing savings and investments or increasing debt to balance the budget reduces net worth.

The second is to cut low-priority items from the budget to bring it into balance. This method balances the budget without using external funding sources. Low-priority items are those associated with your least important short-term goals. These are flexible, or discretionary, outflows for non-essential items.

Another solution is to increase income by finding a higher paying job or perhaps a second, part-time job. This is obviously the most difficult technique and may result in a significant reduction in leisure activities and lifestyle. However, individuals who have no savings or investments to liquidate, who cannot borrow funds, and cannot cover necessary outflows may have to choose this route to balance their budgets.

Financial Law in Australia


## A cash budget for the Meads

Using their short-term financial goals and past financial statements, the Meads have prepared their cash budget for the 2014 calendar year based on cash flow analysis.

The Meads estimated total 2014 take-home annual salary is $\$ 360,000$ - that is,
$\$ 30,000$ for each month. By using take-home pay, they eliminate the need to show taxes,
medical fund payments, and other payroll deductions as outflows.
The Meads prepared a schedule of estimated monthly outflows, dividing outflows into fixed and variable as well as scheduling funds for emergencies and savings.

The final step is to combine the monthly schedules to create the monthly cash budget summary: see Table 5.6. This allows the Meads to analyse their monthly position
to see whether they achieve savings and investments or need to borrow to cover monthly shortages.

Although the budget shows January 2014, variations will occur in savings levels (even deficit savings) and may result in a cumulative deficit for future months. To cover such deficits, Tom and Mary would need to arrange a loan. If they had used their savings to finance the deficits, they would lose some interest earnings, included as income. If they want to reduce the deficits more quickly, they can delay clothing and entertainment outlays until later in the year. If they could not obtain funds to cover the deficits, they would have to reduce spending further or increase cash-flow.

## Comparing actual results to budgeted figures

In the final analysis, a cash budget has value only if (1) you use it and (2) you keep careful records of actual cash flows. These records show whether you are staying within budget limits. Record this information in a budget record (electronic or manual) often enough so that you don't overlook anything of significance, yet not so often that it becomes a nuisance.

At the beginning of each month, record the budgeted amouni for each category and enter cash received and money spent. With the exception of (e)tain accounts (like salary) and fixed accounts like mortgage or loan payments, moct rategories will end the month with a positive or negative variance, indicating a cash Sci 1 lus or deficit.

This monthly comparison makes it easy to ideniify major budget categories where receipts fall far short or spending far exceeds desired levels (variances of 5 to $10 \%$ or more). Once you pinpoint these areas, you can take corrective action to keep your budget on course. However, it is not enough tosimpl? etermine the size of the variances. You should analyse them, particularly the larger ones, to find out why they occurred. If recurring deficits indicate that an account wai under-budgeted, you may need to adjust the budget to cover the outlays, reducing ove-budgeted or non-essential accounts. Only in exceptional situations should you finarict budget adjustments with savings and investments or borrowing.

Control is impor ant not only in individual categories but also in the total monthly budget. By examinis end-of-month totals for all accounts, you can discover whether you have a net budget surplus or deficit and take appropriate action to maintain a balanced budget for the rest of the year.

The Meads' budget for January shows how their actual inflows and outflows compare to the various budget categories and where variances exist. Such periodic feedback is essential for budgetary control and to ensure that actual items stay within the budgeted amounts. This schedule allows you to identify problems and take steps to bring individual accounts and/or the whole budget into balance. Looking at the budget, we see that actual inflow and outflow levels do not match with an overall variance for the month shown. The Meads will need to examine and make adjustments to balance cash inflows and outflows unless they wish to seek credit to finance cash shortfall.

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## table_5.6 Monthly Budget

## Step 1 Estimate

Meads' budget for month of January 2014


## o,

| Budgeted Amounts |
| :--- |
| expected inflows from all |
| sources; this amount is to be |
| allocated among various |
| outflows |
| Step 2 |
| Budget amount for an |
| emergency fund, periodic |
| spending and financial goals |
| Step 3 |
| Budget set amounts that you |
| are obligated to pay |
| Step 4 |
| Budget estimated amounts that |
| are to be spent for various |
| household and living items |
| Projected Inflows |
| Salaries \& other income |
| Projected Outflows |
| Emergency Fund and Savings: |
| Emergency fund savings |
| Savings for insurance |
| Savings for vacation |
| Savings for investments |
| Total Savings |
| Fixed Outflows |
| Mortgage pâyment |
| Rates \& taxes |
| Loan payment |
| Insurance |
| Total Fixed Outflows |
| Food, dining, consumables |



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5. Cash Flow and Budgeting

## Summary

This chapter considered the importance of financial reports and budgeting in the achievement of financial goals. The following list summarises the major points covered:

- Personal financial planning provides a framework for making financial decisions that are consistent with your long- and short-term financial goals. Sound financial planning involves developing, implementing and controlling plans and strategies for putting goals into action. Professional financial advisers help with the planning process. Preparing and using personal financial statements is important to financial planning, because they allow you to keep track of your current financial position and to monitor progress towards your financial goals
- A balance sheet reports on your financial position at a given point in time. It provides a summary of the resources you own (assets), the money you owe (liabilities), and your financial worth (net worth). Assets include liquid assets, investments, andreal and personal property. Liabilities include current liabilities that are due in less than one year (unpaid bills, credit obligations) and long-term liabilities (real estate mortgages, consumer loans). Net worth represents your actual wealthandis the difference between total assets and total liabilities.
- The cash flow statement summarises the cash receivecrand the money spent over a given time period. It is prepared on a cash basis and a such, reflects your actual cash flow. Cash outflows comprise (1) living expenses, ( $(2)$ purchases of assets, (3) taxes paid, and (4) paying debts. The cash surplus (or deist) is the difference between inflows and outflows. A cash surplus can be used to li.erease assets and/or reduce debts. This has a positive effect on the balance shee $i=$ net worth account. A cash deficit, in contrast, reduces assets and/or increasesuabts, acting to reduce net worth.
- Good records facilitate the preparation of personal financial statements. Organised records simplify tax return preatrition and provide the necessary documentation for tax deductions. Ratio analysis allows vou to interpret your personal financial statements to assess how well you are doing relative to your past performance. And the time value of money must be factored in to decisions when considering cash flows over periods of time.
- Long-term financial goals provide general direction for the long haul, while short-term goals should be more specific in nature and consistent with established long-term goals. Both types of financial goals will change depending on personal circumstances and stage in the life cycle.
- A cash budget will help implement a system of disciplined spending. Household budgets should be set up on a cash basis. They identify planned monthly cash inflows and cash outflows for the coming year. The objective is to take in more money than you spend so that you add to your net worth over time. The final step in the budgeting process is to compare actual inflows and outflows to budgeted figures to learn if you are living within budget and, if not, to take appropriate corrective actions.


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## Questions

1 Explain the difference between a budget and a financial plan.
2 Show how financial statements fit into the personal financial planning process.
3 Define the balance sheet, its components, and how you would use it in personal financial planning.
Differentiate between investments and personal property.
4 What is a cash flow statement? What role does it serve in personal financial planning? Name the four basic types of expenditures.
5 Explain how records are used to ensure effectiveness and efficiency in the financial planning process.
6 Describe the cash budget and its inflows and outflows schedules.
How does a budget deficit differ from a budget surplus?
7 Distinguish between long-term and short-term financial goals. Comment on:
a personal situation and stage of life cycle;
b flexibility;
c inflation considerations;
d goal dates; and
e the key input to the cash budget.
8 Why is it important to use time value of money concepts in setting personal financial goals?

## Problems

1 For each of the items listed below, indicate in column $A$ whether it belongs to the cashflow statement (CF) or balan es sneet (BS). Indicate in column B whether it isan asset (A), liability (L), inflow (I) or ouflow (O).

| Item | Column A (Statement) | Column B (Classification) |
| :--- | :--- | :--- |
| Loan payable Utilitis s paid <br> Taxes owed Jewellery |  |  |
| Interest received Cash deposit |  |  |
| Paid telephone account Tax <br> refund due |  |  |
| School fees paid |  |  |
| Commissions received |  |  |
| Overdue credit card payment |  |  |

5. Cash Flow and Budgeting

2 The Milne household's financial statements for 2012 and 2013 contain the following information:

|  | $\mathbf{2 0 1 3}$ <br> $\$$ | $\mathbf{2 0 1 2}$ <br> $\$$ |
| :--- | :--- | :--- |
| Total net worth | 410,000 | 450,000 |
| Total assets | 980,000 | 810,000 |
| Liquid assets | 7,500 | 9,000 |
| Total current liabilities | 65,000 | 60,000 |
| Total monthly loan payments | 5,100 | 4,900 |
| Monthly gross (before tax) cash inflow | 12,500 | 14,000 |

Compute solvency, liquidity and debt service ratios for 2012 and 213 and advise the Milnes what the ratios reveal about changes in their financiâ condition.
3 Two households, Rudd and Gillard, have the following assets and debts as at31 December 2013. Prepare their balance sheets and compare theirfinancial positions.

| RUDD HOUSEHOLD 2013 | 18,500 |
| :--- | :--- |
| Cash investments | 14,000 |
| Vehicles | 9,000 |
| Jewellery | 17,000 |
| Clothing | 40,000 |
| Artwork | 220,000 |
| Property | 10,500 |
| Caravan | 22,000 |
| Loan payable (6 mths) | 1,800 |
| Interest payable | 3,000 |
| Taxes payable | 78,000 |
| Loan payable, non-current | $\$ 4,650$ |
| GILLARD HoUSEHOLD 2013 |  |
| Cash |  |

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| Vehicles | 16,350 |
| :--- | :--- |
| Jewellery | 30,500 |
| Clothing | 7,700 |
| Artwork | 3,550 |
| Appliances | 42,500 |
| Property | 170,000 |
| Holiday caravan | 13,000 |
| Bills payable | 21,700 |
| Interest payable | 1,700 |
| Income taxes payable | 4,050 |
| Bank loan payable, current position | 2,500 |
| Bank loan payable, non-current | 37,500 |

4 The Thompsons are about to construct their balancg sheet and cash flow statement for the year ending 31 December 2013. They have phiogether the following information:

| Kay's salary | $\$ 37,000$ |
| :--- | :--- |
| Reimbursement for travel expenditurss | 1,950 |
| Interest on: <br> Savings account <br> Bonds | 110 <br> 70 |
| Groceries bought | 4,150 |
| Rent paid | 9,600 |
| Utilities paid | 960 |
| Car expenses | 650 |
| Tuition, books and supplies outlays | 3,300 |
| Books, magazines and periodicals expenses | 280 |
| Clothing and other miscellaneous expenditures | 2,700 |
| Cost of photographic equipment purchased with credit card | 1,600 |
| Amount paid to date on photo equipment |  |

5. Cash Flow and Budgeting

| Travel expenses | 1,950 |
| :--- | :--- |
| Purchase of a new car (cost) | 19,750 |
| Outstanding loan balance on car | 7,300 |
| Purchase of bonds | 4,900 |

Using the information provided, prepare a cash flow statement for the year ending31 December 2013.
5a For each of the cases shown in the following table, determine the amount of the equal annual end-of-year deposits necessary to accumulate the given sum at the end of the specified period, assuming the stated annual interest rate.

| Case | Sum to be accumulated (\$) | Accumulation period (years) | Interest rate (\%) |
| :--- | :--- | :--- | :--- |
| A | 5,000 | 3 | 12 |
| B | 100,000 | 20 | 7 |
| C | 30,000 | 8 | 10 |
| D | 15,000 | 12 | 8 |

5b You plan to retire in exactly 20 years. Your goai is to create a fund that will allow you to receive $\$ 20,000$ at the end of eachyear torthe 30 years between retirement and death. You know that you will be able to earn 11: per year during the 30-year retirement period.
i. How large a fund will you need wen you retire in 20 years to provide the 30-year, $\$ 20,000$ retirement annuity
ii. How much will youneed today as a single amount to provide the fund calculated in part i if you earn only $9 \%$ per year during the 20 years preceding retirement?
5c Lal, a 25-year-old grasfate, wishes to retire at age 65. To supplement other sources of retirement income, $n_{t}$ can deposit $\$ 2,000$ each year into an individual retirement fund. The fund will be invested to earn an annual return of $10 \%$, which is assumed to be attainable over the next 40 years.
i. If Lal makes annual end-of-year $\$ 2,000$ deposits into the fund, how much will he have accumulated by the end of his 65th year?
If Lal decides to wait until age 35 to begin making annual end-of-year \$2,000 deposits into the fund, how much will he have accumulated by the end of his 65th year?[Refer to Appendix 5A]

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6a Determine the equal annual end-of-year payment required, over the life of loans shown in the following table, to repay them fully during the stated term of the loan.

| Loan | Principal (\$) | Interest rate (\%) | Term of loan (years) |
| :--- | :--- | :--- | :--- |
| A | 12,000 | 8 | 3 |
| B | 60,000 | 12 | 10 |
| C | 75,000 | 10 | 30 |
| D | 4,000 | 15 | 5 |

6b Jasper borrowed $\$ 15,000$ at a $14 \%$ annual rate of interest to be repaid over three years. The loan is amortised into three equal annual end-of-year payments. Calculate the annual end-of-year loan payment.
$6 c$ Jim is shopping for a used car. He has found one priced at $\$ 4,500$. The dealer has told Jim that if he can come up with a down payment of $\$ 500$ the deater will finance the balance of the price at a $12 \%$ annual rate over two years ( 24 nichtns). Assuming that Jim accepts the dealer's offer, what will his monthly (end-of-month) payment amount be?
7 Prepare a record of your cash inflows and outflows for tielast 30 days; then prepare a personal budget for the next month. Use the budget io control and regulate your outflows during the month. Discuss the impact of the budget on your spending behaviour as well as any differences between voar expected and actual spending patterns.
8 The following information is the presentand forecasted cash and net worth position of Tanya Abbott:

| Forecasted (\$) | Present (\$) |  |
| :--- | :--- | :--- |
| Salaries | 100,000 | 80,000 |
| Household expens?s | 80,000 | 60,000 |
| Other expenses | 5,000 | 4,000 |
| Loan payments | 13,000 | 10,000 |
| Interest | 1,500 | 1,500 |
| Cash surplus | 500 | 4,500 |
| Balance Sheet |  |  |
| Assets | 4,000 | 16,000 |
| Liquid assets | 13,250 | 11,500 |
| Investments |  |  |

5. Cash Flow and Budgeting

| Forecasted (\$) | Present (\$) |  |
| :--- | :--- | :--- |
| Personal property | 21,750 | 14,000 |
| Total | 39,000 | 41,500 |
| Liabilities and Net Worth |  | 2,000 |
| Current liability | 5,675 | 13,000 |
| Long-term liabilities | 14,125 | 15,000 |
| Total Liabilities | 19,800 | 26,500 |
| Net worth | 19,200 | 41,500 |
| Total | 39,000 |  |

Using ratios and comparisons, review the financial prospect of Tanva and recommendchanges to the forecasted position.

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## Case Studies

## Case study_5.1 Advice

Your parents are interested in getting advice on what is the best outcome at the end of a six-year period for investing a sum of money in the following options, given a $9 \%$ earning rate. What is the preferred option?

1 Invest \$5,000 as a lump sum today.
2 Invest \$2,000 at the end of each of the next five years.
3 Invest a lump sum of \$3,000 today and \$1,000 at the end of the next five years.
4 Invest $\$ 900$ at the end of years one, three and five.

## CASE study_5.2 Advisory Matters

1 Major banks operate financial advisory services. Ther services range from investment advice to superannuation strategies. Visit two lation banks and obtain their information booklets on financial advisory services. Compare and contrast their services, giving attention to the products they offer and $t z$ applied, if any, for their advisory work.
2 Obtain also at these banks their booklets setting out their saving schemes for customers. Compare and contrast the conditions and the interest provisions attached to these schemes, giving attention to minimum cancitions required for gaining the best interest rates.
3 A client is concerned about inis dwindling cash inflows and he wishes to delay payments on his credit cards. Explain the financial consequences of delaying payments when his cards carry $18 \%$ annurín terest rate.

## Websites

The following sites will supply further background and information on financial statements, budgeting and personal financial management:
www.cpaaustralia.com.au
www.afrsmartinvestor.com.au
www.fpa.asn.au
www.quicken.com.au
www.dixon.com.au
www.ato.gov.au
www.centrelink.gov.au
www.moneysmart.gov.au
www.calculatorweb.com

## Further Reading

CPA Australia

SmartInvestor
Financial Planning Association
Quicken
Dixon Advisory
Australian Taxation Office Centrelink
ASIC Guide on Investing
Financial and business calculators
Gitman L, Juchau R \& Flanagan J, Principles of Managerial Finance, Pearson Australia
Sydney, 2010.
Juchau R, et al, Accounting: Information for Decisions, Revised 2nd ed, Cengage, Victoria, 2009.
Madura J, Personal Finance, Prentice Hall, Sydney, 2011.
Smith B, DIY Financial Planning: Creating Wealth through Careful Financial Planning, Wrightbooks, Brisbane, 2008.
Valentine T et al, Modern Financial and Investment Planning, Pearson Australia, Sydney, 2011.

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[^0]:    Source: Kapoor et al (2006), Personal Finance, McGraw Hill.

