

## Chapter 4

# Personal Financial Statements

### Chapter Objectives

Students must be able to:

- State the Main Personal Financial Statements
- Explain and Construct a Net Worth Statement
- Classify the Various Assets Into Broad Categories
- Explain the Assets Quality and Solvency Situation of a Client
- Compute the Existing Liabilities Based on the Current Principal Outstanding
- Construct the Income Statement
- Determine the Net Cash Surplus
- Evaluate If the Cash Flow is Sufficient to Meet Major Objectives
- Undertake Some Key Financial Ratio Analysis
- Establish if the Client Has Enough Passive Income to Retire

## Chapter 4

# Personal Financial Statements

### Introduction

The one thing that truly separates financial planners from an ordinary financial services agent is the mandatory preparation of personal financial statements. Construction of personal financial statements is essential to undertake any kind of financial planning. Even if the area of concern is narrowly defined to include tax, investment or insurance the construction of personal financial statements is relevant. A professional financial planner knows money is a scarce commodity and therefore it is important to look at the overall financial situation of a person before embarking on any particular course of action. Sometimes the client will just be interested in tax, insurance, investment or estate planning, but a financial planner needs to know where the client is financially. He must have a picture of the client's overall financial position. He will proceed to work on his specific objective only after he has understood the client's overall financial position.

A RFP designee should familiarize himself thoroughly with personal financial statements and understand the financial history of every person. Financial planners around the world are beginning to find that there is an inner financial world with people. They discover specific emotions attached to financial decision making. People's views about money are very different and their attitude to life is also very different. These emotions and attitudes impact their financial decision making.

### Financial Statements – Tell a Story

Wayne Dyer had written in his book 'The erroneous zone' that we are today the sum total of all the decisions that we have made." Similarly as with life your financial position is the result of all the financial decisions that you have made in your lifetime. How solid your balance sheet looks is a result of your financial decisions in the past. Tremendous understanding about the person can be had by just studying a person's financial statements. Of course these statements change on a regular basis but when you take a snap shot of his finances you will discover a history, a trend, an ability or lack of ability and even competence or non-competence to manage his finances. His risk profile will also be reflected by his financial statement. Of course a financial planner is not there to judge a client but to understand the client and work with him on his many objectives.

There are basically two financial statements used in personal financial analysis. They are the balance sheet or the net worth statement and the cash flow statement. A regular review of these statements can contribute immensely to the betterment of your financial situation. A financial planner will start his analysis using these statements. Let us now understand these statements.

## **Balance Sheet or Net Worth Statement**

This term is of course taken from accounting. Accountants prepare a set of accounts mainly the balance sheet and the income statement for a business. They employ a double entry bookkeeping system that gives a balance sheet. All the assets will balance with all the liabilities and the owner's equity. The surplus from the Income statement will be carried to owner's equity as retained earnings. In personal financial statements the owner's equity is called Net Worth. Sometimes this statement is called the Source and Application of funds. But this is a historic picture. The accountants use historical cost and not market values. In personal finance we need to use current values. We will want to know the market value of his assets and the current value of his liabilities. His net worth will reflect current values.

### Balance Sheet

Assets	Liabilities
	Owner's Equity or Net Worth

The balance sheet can be expressed as an equation:

Total Assets less Total Liabilities = Net Worth.

Expressed plainly it states: What one owns less what one owes = what one gets to keep

## **How Rich or Solvent are You?**

The Net Worth is often quoted by people to state how rich someone is or how solvent he or she is. But realistically net worth is only a theoretical value as no one really sells all his assets and pays up all the liabilities to collect the net worth of his assets. But it is a good reflection of how strong a person's financial position is. The balance sheet is a snap shot of a person's financial position at a particular point in time. It will change the very next day.

## **High Net Worth Individuals**

Financial planners normally prefer to work with high net worth individuals. High net worth individuals have more complex financial situations and therefore would want the services of the financial planner and of course they will also have the resources to pay for the services. Their financial product needs will also constitute larger sums of money and therefore larger fees or commissions for the planner. While finding high net worth clients is a useful prospecting exercise a financial planner serves all those who approach him for help.

## **Assets**

There are various classes or categories of assets. The analysis of these various classes of assets is very important in financial planning. There are three main categories:

1. Cash or cash equivalents (called liquid assets),
2. Investment assets, and
3. Personal use assets.

The placement of the assets into the various categories depends on why the asset was acquired and how the individual views the asset. For example if a person has acquired a painting for viewing pleasure and has no intention of selling it, the asset will be categorized as a personal use asset. If however, the painting was bought for its potential for increase in value and that it will be ultimately sold, then it can be categorized as an investment asset.

In accounting the assets are classified as current or fixed assets. Current assets are assets that have a shelf life of less than 12 months. These assets will be converted into cash within 12 months. Fixed assets are used in the business for more than one accounting period. They assist in the production of the final goods. In personal finance we look at the purpose and use of the assets. A typical asset column in a balance sheet will look as follows:

### **Common Asset Items (valued at fair market value, unless otherwise stated)**

#### **Cash/cash equivalents**

Checking account  
Savings account  
Fixed deposits  
Money market account  
Life insurance cash value

#### **Total cash/cash equivalents**

#### **Investment assets**

Stock portfolio  
Savings Bonds  
EPF balance  
Unit trusts (Net asset value)  
Property for rental

#### **Total investment asset value**

#### **Personal use assets**

Personal residence  
Automobiles  
Art/coin/stamp collection  
Personal property (e.g. furniture and fittings, jewellery, clothing)

#### **Total value of personal use assets**

#### **Total Assets**

## **Analysis of Assets**

**Cash or cash equivalents** can be converted to cash within a few days or on short notice. **Investments** are less liquid and will take some time to be converted to cash and some investment assets can be categorized as retirement assets which can only be realized upon retirement like the EPF. **Personal use assets** are assets which reflect a person's lifestyle. They do not generate income. All assets are shown in their current fair market value.

There will be some assets that will be difficult to value. One important asset category is **business ownership interest**. How do you value a business? There are accounting concepts that can be used to value a business interest. Otherwise one can simply forecast the fair market value that can be obtained in a willing buyer willing seller basis. Valuation of a business is important for estate planning purposes and will be covered in later modules.

In personal financial statements **Assets** should also be identified as belonging to husband or wife, whether it is jointly owned, whether rights of survivorship exist, whether it is a tenancy in common or a joint tenancy. Such concepts will be explored in the estate planning modules. Restructuring of assets or re-positioning of assets is a common planning input to help clients achieve their objectives. A common question asked is, if one of the spouses should die will the particular asset be sold or will it remain in the family.

## **Emergency Use Assets**

Assets are needed for emergency use in which case they have to be liquid. Having an emergency fund in cash or cash equivalents will be a sensible thing. Exactly how much is needed depends on the circumstances but most planners believe that an emergency fund that can cover 6 months of expenses will be a safe bet. But all assets cannot and should not be kept liquid. Assets are needed to fund major objectives that will come in the future. You need assets that will grow in value to fund future objectives. Long term assets generate a higher future value than short term assets. Assets are also needed to hedge against inflation. They need to grow more than the rate of inflation. So having long term investment assets is important in financial planning.

## **Personal Use Assets**

It is usual to have the biggest bulk of value in personal use assets. Your residence and automobiles will represent the biggest value. However such assets will not generate income during your retirement period. Income for living expenses during retirement is a big concern for most people. That is why having investment or financial assets to generate passive income are very important.

It is usual for the planner to calculate the asset portfolio rate of return for the client. It will be clear that most people if they lose their current source of income will be hard placed to replace their active or earned income. Their savings or investments will not be sufficient to generate the income lost.

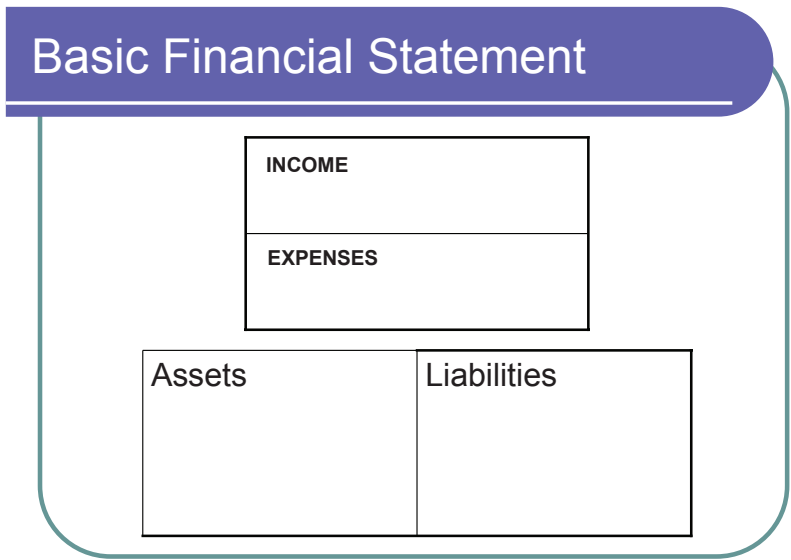
For the above reasons a financial planner must clearly identify all the assets and also the nature and characteristic of each asset.

### Malaysians' Asset Ownership pattern

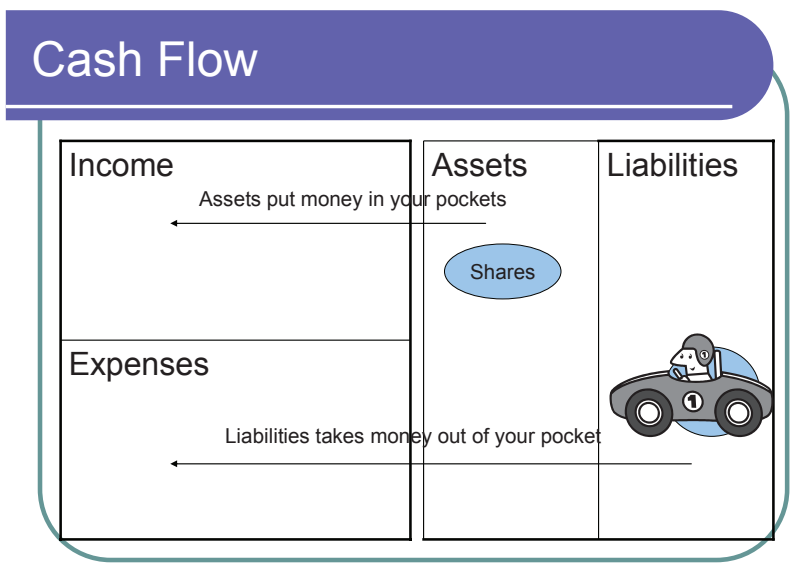
It will be good to have statistics on the percentage of Malaysians owning the various asset categories. In Malaysia asset ownership by the different racial communities has also received wide interest. The percentage of Malay ownership of shares in companies was recently the subject of great debate. The penetration of insurance ownership in Malaysia is also an area of concern. The asset ownership within urban and rural population also differs in many respects.

### Rich Dad, Poor Dad

The popular author and investor Robert Kiyosaki in his famous book "Rich dad Poor dad" also categorically stated that some assets in your financial statement are not really assets. He considers your residence and automobiles as liabilities as by his definition assets are supposed to bring you cash or revenue and liabilities are those that use cash or consume cash. Therefore cars and houses consume cash through their mortgages and maintenance costs. It will be good if the planner can show their clients a Kiyosaki version of balance sheet.

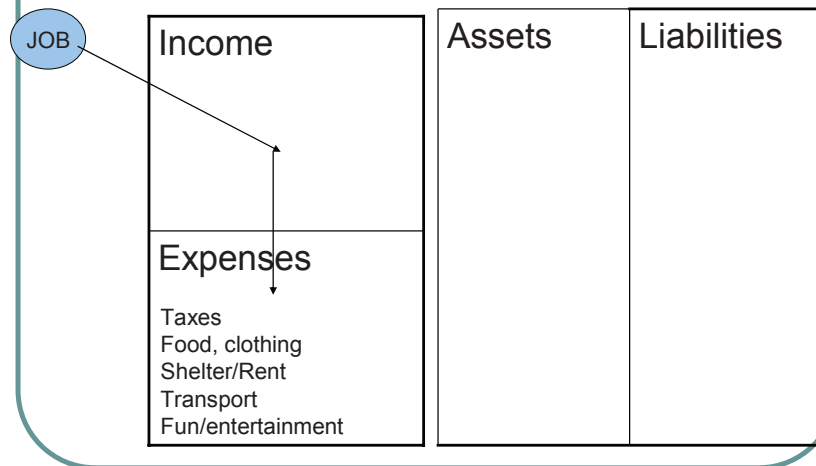


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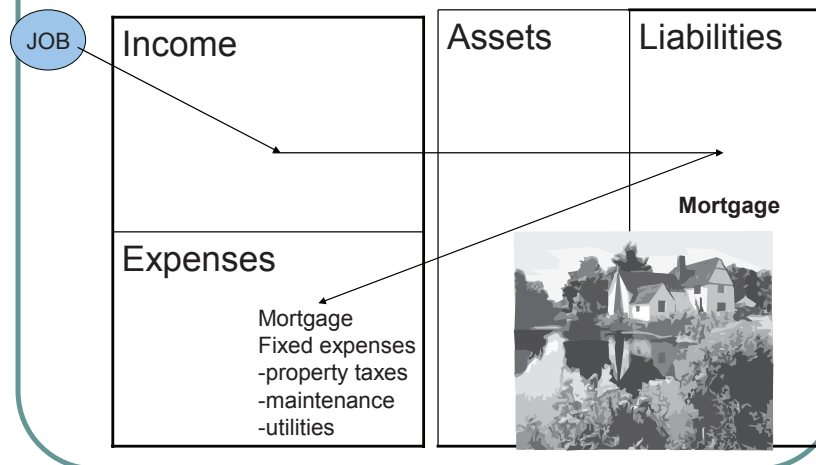
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### Cash Flow Pattern of a Poor person



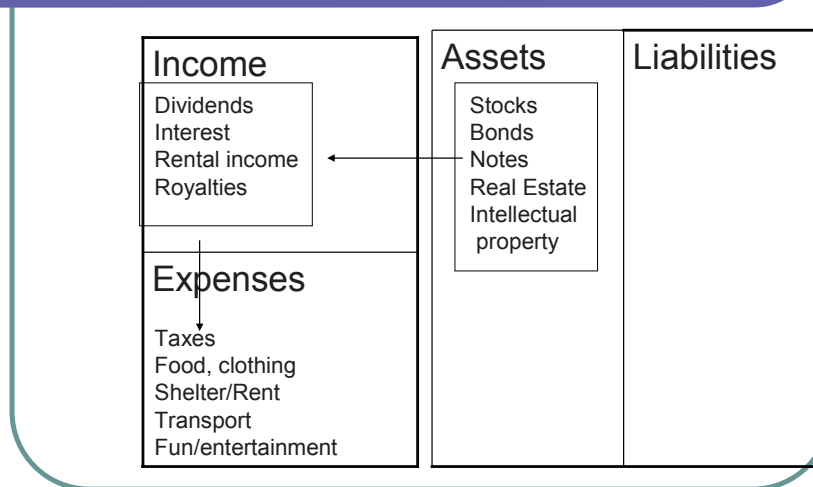
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### Cash Flow Pattern of a Middle-class person



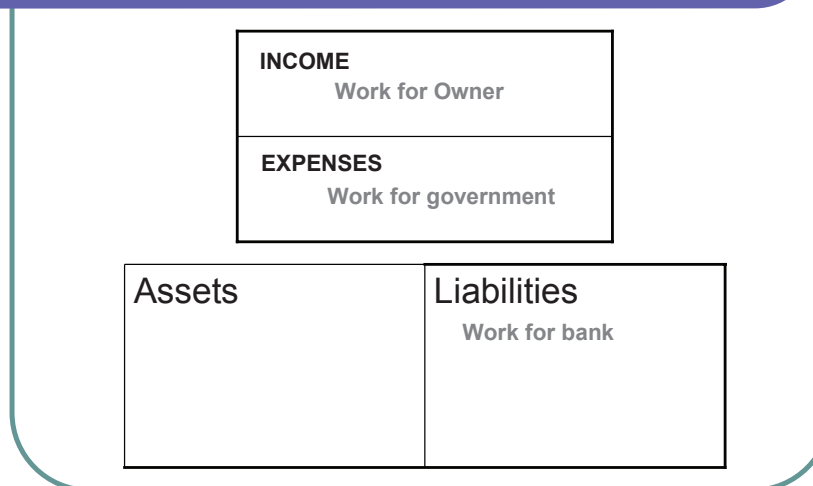
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## Cash Flow Pattern of a Rich Person



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## Basic Financial Statement of the Masses



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### Liabilities

The liability section of the balance sheet or net worth statement will show all the outstanding debts or loans of the client. This would be the principal loan or debt outstanding as of that date. Typical liabilities will be housing loan, car loans, credit card debts and other personal loans. If people had signed as 'guarantors' to loan takers there is a possibility that a liability exist. However, it is more useful to write footnotes on the situation and the client has to watch carefully the performance of the loan. Many have had their financial life ruined by guaranteeing other people's loans. While there is a great risk to the signatory, the banks have insisted on following this procedure. Cases of being kind to family and friends have placed many people in deep trouble.



## **Short Term and Long Term Liabilities.**

Liabilities can be classified as short term or long term. In accounting short term liabilities have to be settled within 12 months. Typical short term liabilities that need to be settled within a short time are taxes and credit card debt. Mortgage debts are also settled on a monthly basis. In personal finance once you have incurred the liability it is all current and short term liabilities. Most loans although long term carries a monthly payment. Any default in payment will lead to the banks or finance houses calling in the loans. Any difficulty of this nature will lead to a chaotic financial position. The assets used as collateral will be pulled back, confiscated or forced sold leaving the client in a bind. If he is declared a bankrupt then the official assignee steps in and the individual's income and assets are managed by the official assignee. Creditors will have a stranglehold on the client. It is heartening to hear many bankrupts getting out of trouble but I wonder if they are the exception rather than the rule.

## **Contingent Liability**

If the individual rents or leases a property for a specified term, the entire outstanding (full term) rent can be reflected as a liability. His net worth will be affected by this financial commitment. This type of liability is called contingent liability. The client has to repay or redeem these liabilities in the event they have turned sour or unfavorable. Contingent liabilities that are unlikely to happen can be entered as a footnote to the statement.

Typical liability section in the balance sheet will be as follows:

<b><u>Liabilities and Net Worth</u></b>	
<b><u>Liabilities</u></b>	
<b>Housing mortgage</b> (principal balance)	
<b>Auto loan</b> balance (the remaining full term payment outstanding)	
<b>Credit card</b> balances (each card reflected separately)	
Other loans and commitments	
<b>Total liabilities</b>	-
<b><u>Net Worth</u></b>	
Difference between Total Assets and Total Liabilities	
<b>Total Liabilities and Net Worth ( equals Total Assets)</b>	

## **Cash Flow Statement**

This second financial statement, the cash flow statement, is perhaps even more important than the net worth statement. It reflects the cash flows coming in and the cash flows going out; income versus outgoings or expenses for a specified period. There is a net income if the income exceeds the expenses and there is a net deficit if the expenses exceed the income. Of course you cannot spend money you do not have. The deficit is met by borrowings.

Many households like governments practice budget deficit which is financed by borrowings. Governments expressed purpose for borrowing and spending is to stimulate the economy. Households have a budget deficit to fuel their desire to consume more today. They want the goods or services today and so spend future income on current needs. Their debts mount up and soon half their income is used to pay up the loans or debt. The Malaysian government at this moment in time uses more than half its revenue each year to settle its fixed loan commitments. With 25 percent going to pay remuneration of government servants there is but only 25% left to finance development expenditure. Therefore in order to stimulate the economy it has to keep borrowing. A household must watch out for this pitfall. The government can print money or raise taxes, the individual cannot. So his logical step would be to live within his means. Income must be greater than outgoings.

### **Typical items in a Cash Flow Statement:**

Example family

#### **Cash Flow Statement**

For the Year ended 31<sup>st</sup> December 2007

#### **Cash Inflows**

Salaries and cash perquisites  
Dividends received  
Interest income  
Distributions from unit trusts  
Bonuses

#### **Total Inflows**

#### **Cash Outflows**

##### **Savings and investments**

##### **Fixed payments on loans/credit cards/insurance**

Mortgage payments/rents  
Auto loan payments  
Insurance premiums  
Taxes (Pay as you earn)  
Credit card payments (minimum payments)

#### **Total fixed outflow**

**Variable payments**

Food  
Transportation costs  
Clothing and personal care products  
Sports and Entertainment/vacations  
Medical/dental care for family  
Utilities and household expenses  
Child expenses (food, clothing, and education)  
Miscellaneous

**Total variable outflow****Total Outflows****Net Inflow****Analysis of Cash Inflows**

Inflows are vital for the survival of the family. The stability of inflows is important to financial planning. The inflows also reveal if the person is able to retire as the composition of passive income to active or earned income reveals his dependence on employment or business engagement. Investment income must ultimately replace his active income during retirement. It will be necessary to estimate the future increase in income as well. Some funding objectives can defer savings when the incomes have improved. Projections of future values will take into consideration future increases in income.

The following issues must be studied in analyzing inflows.

**1. Stability of income**

It is quite important to have a stable income. It also helps if you have a large income. Income is what we are fighting for all our lives. In mid life there are many disruptions to income and so the stability of income is a vital factor. People trying their hand on business or self-employment create some instability for a few years. Many suffer permanent impairment to their income position.

**2. Fluctuation of income**

People in business or self employment may have fluctuating incomes. Fixed commitments may contribute a challenge to those earning irregular incomes. People in these situations must establish a six months emergency fund to weather these irregular patterns of income. It is common to experience mid-life crisis and a change in jobs. Some even contemplate going on their own after a long period in employment. These situations produce some interruptions in income and even loss in capital savings. While many survive these entrepreneurship hurdles many are also left in the cold with poor business acumen and other important reasons like being under-capitalized, and lacking marketing prowess.

### 3. Deductions from gross income

In Malaysia it is becoming a common phenomenon to have various deductions through the payroll. Taxes are now deducted from gross salary under the Scheduler Tax Deduction scheme. These are taxes that are based on estimates of income for the current basis year. Revisions will be necessary upon the final submission of return forms. Other direct deductions for loan repayments and savings contributions reduce the net income received. Some will have hardly anything left after all their deductions. Incomes can be presented as gross with deductions taken up at the expense level. This way it is clearer to see where the income is going.

### Analysis of Expenses

Expenses are a major area of concern. In most situations the income is fixed and therefore it is in the analysis of expenses that a surplus can be derived to put into savings. The most important distinction is the division of expenses into fixed and variable. The type of expenses will also reveal the urgency and importance of the expense. Discretionary expenses which can be deferred or postponed or even avoided will allow savings to be accumulated to meet important long term objectives.

**Savings and investments** are placed as a separate category of expenses. It is commonly asked, "Do you save first and spend the balance or do you spend first and save the balance?" For this reason and the importance of savings and investments it is categorized separately.

Common **fixed** payments are loan commitments. Credit card payments become fixed as people tend to pay just the minimum required on their balances. Alimony and child support payments will figure more prominently in the future with the increase in divorces.

Another important category is **taxes**. They are classified as fixed here to show the PAYE (pay as you earn) system. Taxes are however dependent on income earned. Under the self-assessment and current year tax system we have to estimate our income quite correctly so that the tax at source is adequate to cover the final tax computation.

**Variable** expenses are difficult to track or monitor as they are usually paid in cash or out of pocket. It will take discipline to write down these expenses for future analysis. It is best to have a system of recording expenses as they incur within the day or the morning after. Unless households follow an 'imprest cash' system the payment of cash or use of credit cards will make keeping records a major task. In the olden days in the rich Indian households there was always a bookkeeper who kept the family books. Today it will be good to appoint somebody in the family to be the bookkeeper. I wonder who will be the better accountant in the household, the wife or the husband.

### 4. Fixed versus variable expenses

The primary analysis will involve separating the fixed expenses from the variable expenses. Having current income to pay for the fixed commitments is an absolute must. Although there are some rules about how much debt burden a person can bear many do not pay heed to this constraint. Credit card debt and other personal loans can impinge heavily on someone's cash flow. These convenience debts have a high cost attached to them. One of the primary tasks of

a financial planner is to help the client get rid of these high cost consumer debts. The interest paid on these debts could be well utilized to save for more worthy long term goals.

### **5. The degree of control on expenses**

All goals that involve savings will require the client to analyze his expenses and determine if they can be forgone to put into a savings plan. The degree of control over expenses becomes important. Expenses determine lifestyle. In order to save one must put aside or forgo some lifestyle expenses. Some expenses are habit related. Alcohol, cigarettes and entertainment are difficult to give up. Of course a client is not expected to give up much of his lifestyle expenses. That is why he is earning an income. However, if his goals dominate he will have to prune his expenses somewhere. If money is put into some committed savings vehicle the client is less prone to spend it. He may limit his spending and extravagance because the money has been set aside. Good examples of committed vehicles are Provident funds, real estate and even life insurance policies.

### **6. Necessary versus unnecessary expenses**

Keeping up with the Joneses is a wasteful financial habit. It is necessary to examine your expenses as to how necessary they are and if they can be avoided. For example it was easy those days to get by without tuition. The schools did a good job. Today the kids are shuttled to a hundred different places to keep up with the Joneses and competition. (The KIASU attitude). The quality of the expenses, the cost benefit ratio must be examined. One big area for analysis is the choice of education. College education is not cheap. Making mistakes in this area will hurt your finances. Many graduates have changed course mid-stream or even after they graduate. Parents are quite ignorant as to what their kids want. They impose their values on the children or do the reverse, leave the child who is still ill equipped to make a correct decision, to choose. Life is already challenging as it is. Making good education decisions for your children can save valuable cash flow. Parents can do more research in this area.

## **Net Inflow**

Hopefully one always has a net inflow where income exceeds expenses. However, the net inflow could be due to timing difference or recording error or inaccurate accounting. When actual cash flows are recorded the surplus finds its way to cash in hand or in the bank. Where expenses exceed income the extra expenses are met through borrowings. In today's world a person is able to dip into plastic money and expand his spending power. Where the minimum payment is only 5% of the credit card balance, the leverage or borrowing is 20 times. ( $100\%/5\% = 20$  times.) The focus is therefore not on the net surplus but on the variable and fixed cash outflows. Where is the money going?

## **Analysis of Financial Situation**

It would be good to undertake a thorough analysis of different areas of concern using the constructed financial statements. Some of the common areas to evaluate will be as follows:

1. Emergency fund	<ul style="list-style-type: none"> <li>✓ Does it exist</li> <li>✓ Is it sufficient for the individual's need</li> <li>✓ If insufficient can it be built up from net cash flow or can some assets be converted for this purpose.</li> </ul>
2. Level of debt	<ul style="list-style-type: none"> <li>✓ What is the current level of debt</li> <li>✓ What are the types of debt</li> <li>✓ Are there sufficient cash flows to expedite settlement or can other assets be used to liquidate the expensive debts</li> </ul>
3. Level of savings	<ul style="list-style-type: none"> <li>✓ How liquid is his portfolio</li> <li>✓ Are his savings adequate to meet his objectives</li> </ul>
4. Diversification of assets	<ul style="list-style-type: none"> <li>✓ How diversified are his assets holdings</li> <li>✓ What is his asset allocation strategy</li> </ul>
5. Level of preparation for retirement	<ul style="list-style-type: none"> <li>✓ Are assets being accumulated for retirement</li> <li>✓ Will he meet his retirement objectives</li> <li>✓ Does he have the cash flow for additional investments for retirement</li> </ul>
6. Tax situation	<ul style="list-style-type: none"> <li>✓ Is tax a real burden for the individual?</li> <li>✓ What investments are being taxed?</li> <li>✓ Can he apply some established tax planning ideas?</li> <li>✓ If in employment can he re-structure his employment package for better after-tax cash flow?</li> <li>✓ What are his chances for deferred compensation?</li> <li>✓ Is he having an appropriate business tax entity?</li> </ul>
7. Assets and Income at risk	<ul style="list-style-type: none"> <li>✓ What assets are exposed to natural perils</li> <li>✓ Disability and health risk cover</li> <li>✓ Hospitalization and medical cover</li> <li>✓ How much survivor income can the assets generate</li> <li>✓ Level, type and adequacy of insurance coverage</li> </ul>

## **Financial Ratios**

Financial ratios as used in accounting can be utilized to analyze an individual's financial position. Statistics seldom lie but they do not tell the whole truth either. Let us explore some common ratios that can be applied in financial planning. First we have to draft the financial statements.

**Balance Sheet or Net Worth Statement as at 31-12-2007****Cash/cash equivalents**

Checking account	3,000
Savings account	5,000
Fixed deposits	10,000
Money market account	10,000
Life insurance cash value	<u>8,000</u>
<b>Total cash/cash equivalents</b>	<b>36,000</b>

**Investment assets**

Stock portfolio (market value as at 31-12-2007)	15,000
Savings Bonds	20,000
EPF balance	90,000
Unit trusts (Net asset value)	15,000
Property for rental	<u>NIL</u>
<b>Total investment asset value</b>	<b>140,000</b>

**Personal use assets**

Personal residence (market value)	200,000
Automobiles (current market value)	35,000
Art/coin/stamp collection	not valued
Personal property (e.g. furniture and fittings, Jewellery, clothing)	<u>30,000</u>
<b>Total value of personal use assets</b>	<b>265,000</b>

**Total Assets** **441,000**

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**Liabilities and Net Worth****Liabilities**

<b>Housing mortgage</b> (principal balance)	130,000
<b>Auto loan</b> balance (the remaining full term payment outstanding)	45,000
<b>Credit card</b> balances (each card reflected separately)	20,000

Other loans and commitments (Overdraft)	<u>10,000</u>
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**Total liabilities** **205,000**

**Net Worth** **236,000**

(Difference between Total Assets and Total Liabilities)

**Total Liabilities and Net Worth (equals Total Assets)** **441,000**

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## Cash Flow Statement

For the Year ended 31<sup>st</sup> December 2007

### Cash Inflows

Salaries and cash perquisites	72,000
Dividends received (net)	5,000
Interest income	2,500
Distributions from unit trusts	3,200
Bonuses	<u>12,000</u>
<b>Total Inflows</b>	<b><u>94,700</u></b>

### Cash Outflows

<b>Savings and investments</b>	<b>7,200</b>
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#### **Fixed payments on loans/credit cards/insurance**

Mortgage payments/rents	18,000
Auto loan payments	9,000
Insurance premiums	3,500
Taxes (Pay as you earn)	12,000
Credit card payments (minimum payments)	<u>7,200</u>
<b>Total fixed outflow</b>	<b><u>49,700</u></b>

#### **Variable payments**

Food	17,000
Transportation costs	9,000
Clothing and personal care products	10,800
Sports and Entertainment/vacations	11,000
Medical/dental care for family	1,600
Utilities and household expenses	14,000
Child expenses (food, clothing, and education)	2,400
Miscellaneous	<u>2,000</u>
<b>Total variable outflow</b>	<b><u>69,800</u></b>

<b>Total Outflows</b>	<b><u>126,700</u></b>
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<b>Net Inflow (outflow)</b>	<b>(32,000)</b>
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## Financial Ratios

### 1. Basic Liquidity Ratio

Liquidity refers to the ease and speed with which an asset can be converted into cash. The asset should not be disposable at a loss or at a very much reduced margin. You can sell many things at a huge discount. The idea of a liquid asset implies getting the market value or as close to it as possible at the time of disposal.

The basic liquidity ratio shows the **number of months** the family household could continue to meet its **expenses** from its cash and cash equivalents assets and other liquid investments should there be no income for some reason.

The monthly expenses is  $\text{Total outflow}/12 = 126,700/12 = 10,558$

Cash or cash equivalents plus other liquid investments = 36,000

Basic Liquidity Ratio =  $36,000 / 10,558 = 3.41$

This ratio indicates that this individual can support only less than three and a half months of expenses if there is no income. It is advisable to have at least three to six months of expenses covered by your liquid assets for emergency purposes.

### 2. Liquid Assets to Net Worth Ratio

This ratio gives an indication of what portion of the family's net worth is held in liquid assets. A minimum acceptable rate would be 15%.

Liquid assets to net worth ratio =  $\text{liquid assets} / \text{net worth}$

$$36,000 / 236,000 = 15.25\%$$

This individual has the minimum acceptable ratio of 15 percent.

### 3. Savings Ratio

The savings ratio indicates the percentage of gross income set aside for future consumption. These savings are important to achieve retirement and other accumulation goals. A ratio of 10% or higher is considered healthy.

Savings ratio =  $\text{savings} / \text{gross income}$

$$7,200 / 94,700 = 7.6\%$$

In this example the savings does not include the EPF contributions made at source. It is assumed that the salary is reflected net of EPF contributions. Therefore if the EPF contribution is included the savings rate becomes  $12\% + 11\% + 7.6\% = 30.6\%$ .

Malaysians by and large save more than the world average because of the compulsory EPF contributions.

#### 4. Debt to Asset Ratio

This is an overall measure of a person's ability to meet debts. It is also a measure of his solvency. How much assets does he have to pay off debts. A measure of 50% or less would be considered safe.

Debt to Asset ratio = total debt / total assets

$$205,000 / 441,000 = 46.49\%$$

Many may have income to cover basic expenses but may not be in a position to pay off debts with existing assets. This is considered a bad situation as you remain indebted for life as you are unable to liquidate your debt. A windfall or a lucky appreciation in the value of one of your assets will be the only way out of your debt. People in this situation are vulnerable to bankruptcy.

Another situation will be that individuals may have the assets but not the income to make the debt repayments. Some assets cannot be disposed off easily like business interest and therefore the cash crunch will come to haunt the debtor.

#### 5. Debt service Ratio

This is a key ratio that shows the percentage of income available to meet debt payments on all mortgage and consumer loans. A rate of below 35% indicates a strong position to meet debt repayments.

Debt service ratio = annual debt / annual take home pay

$$\begin{aligned} \text{Annual debt} &= \text{mortgage debt} + \text{auto loan} + \text{credit card payment} \\ &= 34,200 \end{aligned}$$

$$\begin{aligned} \text{Annual take home pay} &= 94,700 \text{ less taxes of } 12,000 \\ &= 82,700 \end{aligned}$$

$$\text{Debt service ratio} = 34,200 / 82,700 = 41.35\%$$

This person is quite comfortable with debt servicing although still above ideal percentage.

A variant of this ratio is the Non-mortgage debt service ratio:

$$\begin{aligned} \text{Non-mortgage debt service ratio} &= \text{annual non-mortgage debt repayments} / \\ &\quad \text{Annual take home pay} \end{aligned}$$

The lower the ratio the better. A less than 15% ratio is considered healthy. Above 20% indicates a high non-mortgage debt situation.

In this example:  $34,200 \text{ less } 18,000 = 16,200 / 82,700 = 19.59\%$ .

This is a borderline case.

## 6. Net Investment Assets to Net Worth Ratio

This ratio shows the percentage of investment assets to net worth. This reflects the capital accumulation in progress. A high ratio will mean that he has accumulated enough financial or investment assets that can generate investment income during his retirement years.

Net investment assets to net worth ratio = net investment assets / net worth

$$= 140,000 / 236,000$$

$$= 59.32\%$$

In this case the net investment ratio to net worth is very healthy. This shows this person is very concerned about asset accumulation and has been accumulating quite well.

### Summary of Financial Ratios

The example above reveals very satisfactory ratios. However, one grave situation is the negative cash flow of (32,000). This is a reason for concern. He is building financial assets at the expense of borrowing. His position in his lifecycle will tell us if he is still okay. To improve on his net worth he will have to bring his liabilities down and bring his deficit to neutral or surplus. This cash flow picture will reduce the individual's ability to borrow any further. Good financial ratios will still not give the full picture like in this case.

If he can stem his cash outflow he can still further improve his financial position.

## Self Assessment

1. What is the purpose of constructing financial statements?
  
2. What does the balance sheet represent in layman's terms? How useful is a series of successive balance sheets, (over specific time frames of 1, 3 5 or 10 years) be used in evaluating an individual's financial situation?
  
3. The balance sheet is divided into three broad categories: assets, liabilities, and net worth. Briefly define these components.
  - a. Assets
  - b. Liabilities
  - c. Net worth
  
4. Describe the three categories of assets on a balance sheet, and give examples for each.
  - a. Cash / cash equivalents
  - b. Invested assets
  - c. Use assets
  
5. Under which category would each of the following items be placed on a balance sheet?
  - a. Current account balance
  - b. Government securities
  - c. Money market fund
  - d. Stamp collection
  - e. Car/automobile
  - f. Stock portfolio
  - g. Residence
  - h. Employee Provident Fund

6. State what appears in the footnotes in personal financial statements and what is their purpose?
7. What is the purpose of a cash flow statement?
8. List two items that are placed under each of the following categories on the cash flow statements.
- Inflows
  - Fixed outflows
  - Variable outflows
9. Determine where each of the items goes to in the personal financial statements. Write “**BS**” for a balance sheet item and “**CF**” for cash flow items. (Note: Some items listed may not be components of either type of statement.)

.....	Dividend income
.....	Market value of stocks owned
.....	Cash on hand
.....	Money market fund balance
.....	Replacement cost of residence
.....	Mortgage balance (Principal)
.....	Payments to reduce debt or credit card debt
.....	Interest income
.....	Salaries
.....	Net asset value of unit trusts
.....	Taxes paid
.....	Alimony payments
.....	Market value of automobile
.....	Face value of bonds
.....	Insurance premium amounts
.....	Purchase price of stocks
.....	Entertainment expenses
.....	Mortgage payments
.....	Amount transferred from savings to meet expenses
.....	EPF fund balance

10. Kamariah has the following assets and liabilities as at 31st December 2007

- a. From the information provided, calculate Kamariah's net worth as at 31<sup>st</sup> December 2007

Residence

	<u>RM</u>
• Fair market value	110,000
• Mortgage balance	67,422

Port Dickson house

• Fair market value	130,000
• Mortgage balance	54,574

Automobile

• Fair market value	9,000
• Loan balance (20 installments Outstanding * 870)	17,400

EPF balance 35,000

Market value of Unit trusts held 24,000

Miscellaneous personal use property  
(Furnishings, clothing, etc) 57,500

Current account balance 3,700

Stock portfolio (mainly growth stocks) 27,200

Money market fund (held in unit trust) balance 12,000

- a. What is Kamariah's liquid-assets-to-net-worth ratio?
- b. Is her liquid-assets-to-net-worth ratio above or below the recommended level?

11. Jason Ho has the following assets and liabilities as at 31<sup>st</sup> December 2007.

- a. Calculate Jason's net worth as at 31<sup>st</sup> December 2007

Automobile	RM
• Purchase price	64,500
• Amount Financed	50,000
• Loan Balance	32,000
• Market value	21,500
Credit card balances	7,300
Current account balance	3,975
Money market fund balance	4,750
Growth stock portfolio	
• Market value	23,600
Miscellaneous personal property	
• Value	24,200

- a. What is Jason's debt-to-asset-ratio?
- b. Is his debt-to-asset ratio above or below the recommended amount?

12. Deana and Sharul have the following assets and liabilities as of March 1, 2007

- a. From the information provided, calculate the family's net worth as of March 1, 2007

Residence	RM
• Purchase price	168,000
• Original mortgage	150,000
• Current mortgage balance	87,000
• Fair market value	182,000
Automobile #1	
• Purchase price	45,000
• Fair market value	23,500
Automobile #2	
• Purchase price	48,500
• Original loan	38,500
• Present loan balance(total installments due)	14,500
• Fair market value	12,000
Current account balance	3,000
Certificate of deposit	
• Amount	6,000
• Current value	5,700
Growth stock mutual fund	
• Market value	27,500
Personal property	
• Value	31,000
• Credit card balances	13,100

- a. What is the Sharul family's net-investment-assets-to-net-worth ratio?
- b. Is the ratio above or below the recommended amount?



13. The following information describes the cash outflows and inflows for Bala and Sharmini for the year ending 31<sup>st</sup> December 2007.

a. Calculate Bala family's net inflow for the year ending 31<sup>st</sup> December 2007

	RM
Mortgage payments	1,463 per month
Car finance payments	775 per month
Insurance premiums	3,894
Gross salaries (EPF not included)	88,880
Food	13,500
Transportation	12,500
Utilities/household expenses	6,990
Clothing / personal care	8,700
Recreation / vacations	5,780
Medical / dental care	725
Property taxes (Quit rent/Assessment)	1,200
Income taxes (Withheld from pay)	6,850
Miscellaneous outflows	4,000
Interest Income	1,200
Income allocated to savings and investments	6,000
EPF contributions	9,768

b. What is Bala's debt service ratio?

c. Is their ratio above or below the recommended amount?

14. A financial planner will examine personal financial statements to understand the condition of a client's financial health. List questions that could be asked to help evaluate each of the following areas.
- a) Emergency fund
  - b) Level of debt
  - c) Level of savings
  - d) Diversification of assets
  - e) Preparation for retirement
  - f) Tax issues
  - g) Risk management
15. What is the formula for the basic liquidity ratio, and how is it used in evaluating an individual's financial position?
16. What is the formula for the liquid-asset-to-net-worth ratio, and how is it used in evaluating an individual's financial position?
17. What is the formula for the saving ratio, and how is used in evaluating an individual's financial position?
18. What is the formula for the debt-to-asset ratio? How is it used in analyzing a balance sheet?
19. The debt service ratio compares the annual repayments to service all consumer and mortgage debts with a person's annual take-home pay. What does this ratio show, and what is the formula?
20. What debt service ratio percentage level indicates adequate current take-home pay to make debt payments?
21. Describe the net investment-assets-to-net-worth ratio and tell us why it is an important ratio? What specific goals are addressed by this ratio?