Chapter 1 - Developing the Budget

By definition, to budget is to track one's net income in a given time period (usually monthly) against the expenses taking away from it and as a result the income is used up by the expenses leaving a zero balance. Budgets are not meant to leave a positive or negative balance. For example, after a month's worth of bills Jasper has $500 remaining. Where would where the money be allocated to? There are several items such as spending money, savings or paying bills. Perhaps Jasper could have realized he did have the money to see his favorite rock band. On the inverse what if there was a $500 shortage then the budget was not created or allocated properly and that money needs to come from another area to pay shortage down to zero.

The fundamental reason to budget is to predict as accurately as possible what expenses, savings and investments are going to be each month on a consistent basis. It is a knowledge tool to have a grasp on how and where money is being spent. Without tracking the budgeter typically will pay more money for items that what the perceived intent was. Depending on the amount of expenses there may be a few hundred transactions to record each month. For example, suppose Jasper assumes that he is spending $400 a month on groceries but doesn't track it. Therefore, when he is in the grocery store he buys food without a tracking the cost for each visit. After three or four trips to the store he will have purchased dozens of items which renders it extremely difficult to determine his actual cost. If Jasper purchases a latte each day from the coffee shop and three or four energy drinks each week how does he know how much he's spent. If he tracked his cost for gas he may realize that he is spending more than he'd like and may change his course of action to find a cheaper price for fuel a few miles down the road.

When it comes to fixed expenses such as a mortgage or rent payment tracking them is simplified as the amount is known each month. However, without tracking all expenses in time, most people will end up with a negative cash flow which results in people having to borrow money through consumer loans or credit cards. While these vehicles will pay down debt the amount owed is increased due to interest accumulation. In the event of a 401k there are high cost penalties to withdrawing money and it is not recoverable.

Budgets come with a stigma that signifies someone as "cheap" or a "penny pincher." The thought is that when a person is watch dogging their money that they are not willing to spend it without being hesitant or asking a series of questions. While the budget construction is the same, the expenses people have to spend are relative to their income. Therefore, if someone earns $35,000 or $500,000 they have to budget in order to keep expenses, savings and investments growing. Failing to do so can cause daily stress and impacts future goals.

1. The Initial Budget Outline

The key to executing the budget is to plan a year ahead of time to account for the total income and total expenses as they may not be consistent from month to month. This exercise can be created on scratch paper or through spreadsheet software or an online budget tool. Regardless of the available tools it still starts with the basics and even then, it doesn't ensure that Jasper will be disciplined with his money. It is a given that his budget will require modification due to things such as a raise in pay to an increase in the heating bill.

To get started is to simply create an outline with the most important rule being to list every bill incurred in a given month. Many of them are fixed amounts such as a car or mortgage payment, however Jasper must delve deeper to into the smallest of expenses. As long as an item occurs/is paid monthly then it needs to be a line item. Below are some sample items:

Life/Auto Insurance	Gas/Electric	Internet Bill	Newspaper
Kids Programs	Cell/Home Phone	Haircut	Bowling League
Child Care	Cable Bill	Lawn Service	Credit Card
Taxes/Insurance	Prescriptions	Doctor/Medical	Health Club

After identifying the bills, create six columns and give each one a bill name, the amount, when it is due and columns for sent, paid and check/receipt number. When writing out the non-fixed bills, verify the amounts from the prior bank statements going back 3-6 months. After adding up the total, divide accordingly to create an average expense amount for the budgeted amount.

Bill Name	Amount	Due Date	Sent	Posted	Check/Receipt #
Rent	$861	8/1	7/30	8/7	124
Student Loan	$300	8/15	8/5	8/6	125
Child Care	$300	8/3	8/2	8/2	AE555
Auto Insurance	$105	8/5	8/2	8/8	XXX22

1.1 Including Every Expense

It easy to know the obvious things that have to be paid each month, but it is more challenging to determine the exact costs for all of the outflows on a monthly basis. Many items are not necessarily a "**fixed cost**" *(an amount that stays remains each period)* although they require one or more payments each month. This is an imperative aspect because in order to have a true budget, information must be as accurate as possible. Examples of this are gasoline and groceries: if Jasper drives to work, then he makes a certain number of trips to the pump each month and for groceries, the amount he purchases each month can vary widely. (In many households groceries are the second largest monthly expense) The following list displays examples of common repeatable expenses:

Gifts/Holidays	Vitamins/Supplements	Charities
Magazine Subscriptions	Credit Card Annual Fee	Accountant
Memberships	Association Fees	Trash Sewer/Services
Medical Deductibles	Dental Deductibles	License Plates

1.2 Supplemental Budget Items

While it is comfortable having knowledge of the reoccurring bills each month, there are several that crop up throughout the year that are not tracked. These are the items that are often overlooked due to their infrequent intervals as they can occur every quarter, biannually or annually or periodically. Without proper allocation and management this is the where a budget will typically fail. The reason being is that when these additional expenses occur they take away from the income. As budgets are designed to leave a zero balance at the end of the monthly cycle all of the money has been allocated. Consequently, if in one month three birthdays occur, along with medical expenses the budget may be left with a negative balance. This transpires into drawing money from savings vehicles or cutting back on other expenses or spending money.

Birthdays/Holidays	Vitamins/Supplements	Charities
Magazine Subscriptions	Credit Card Annual Fee	Accountant
Memberships	Homeowner Association Fees	Trash Sewer/Services
Medical Deductibles	DVD Movie Service	License Plates

In light of the fact that these expenses are not paid every month they need to be treated that way. After identification, they need to be written down with the inclusion of the amount(s) owed along with the frequency of when they occur. The next step is to divide the total amount of each expense by the number of times it is owed based on its frequency. For example, suppose a DMV license plate renewal fee is due yearly and costs $108 and trash service costs $45 every three months. Therefore, the equations are:

$108/12 results a total of $9 a month

$45/3 results a total of $15 a month

Once all of the expense calculations are accounted for then each expense is treated as if it is due monthly and with a fixed amount. Once this exercise is completed then an additional heading needs to be added to the spreadsheet titled ***Supplemental***. This additional touch point in the budget means this money will allocated each month to another bank account as fund to stipend the expenses for they come due.

Bill Name	Amount	Due Date	Sent	Posted	Check/Receipt #
Mortgage/Rent	$861	5/1	4/27	5/6	3434343
Groceries	$250	5/1	4/27	5/6	233332
Supplemental					
License Plates	$15	12/1	12/1	N/A	N/A
Trash Service	$9	9/1	9/1	N/A	N/A

For items binned to the Supplemental category they also need to keep be kept in a separate ledger so that money can be accessed and tracked for when the bills require payment. TABLE 1.3 displays a sample for license plates and trash service and the frequency for when they are due. For example, license plates are due yearly on December 1st and April 1st for the January, February and March months of service.

Bill Name	Due Date	J	F	M	A	M	J	J	A	S	O	N	D	Total
License Plates	12/1 (yr)	9												9
Trash Service	4/1 (qtr)	15												15

The benefit to having a Supplemental account is that all of the periodic bills are covered when they come due, however the drawback is there is a reduced pool of money to live on each month. The antithesis is to prevent being dinged with unexpected bills that can throw a budget into the negative for one of two ways:

-In a given month there is not enough income to cover the expenses

-In a given month there may a surplus due to the periodic expenses not coming due and the additional funds are spent thereby leaving a shortage in future months

1.3 Expenses and Take Home Pay

Now that Jasper has determined all of his expenses the next step is to determine his monthly income to assess whether his inflows are enough to offset his outflows. The table below highlights his entire list that is laid out descending from the largest expense to the smallest.

Bill Name	Amount
Mortgage/Rent	$861
Student Loan	$300
Child Care	$300
Groceries	$250
Cable Bill	$115
Cell Phone	$115
Auto Insurance	$105
Dining Out	$100
Gasoline/Transit	$85
Furniture (financed)	$65
Bowling	$55
Gas Utility	$50
Electric Utility	$50
Credit Card (financed)	$50
Home Phone	$45
Computer (no interest)	$33
Health Club	$30
Doctor Appointments	$30
Memberships	$26
Hair Cut	$25
Oil Change	$10
Supplemental	
Trash Service	$15
Vitamins	$10
Life Insurance	$10

Take Home Pay Figure

When figuring out take home pay (net income), costs including medical, dental coverage, union dues, flexible savings accounts (FSA) and employer plans such as 401k are taken out pre-tax.

Jasper's salary is $60,000 per year: His average is $5,000 for the reason that there are 4.3 weeks (52 / 12 = 4.3 rounded) per month on average which is important when determining actual monthly income. Hence, being paid weekly equates to four checks per month and for biweekly it is two checks per month. Furthermore, each year being paid weekly means that there are four months in which a fifth check is paid and for biweekly, there are two months in which a third check is received. Being paid on the 15th and 30th every month or monthly always generates the same schedule. (Typical pay schedules are weekly or biweekly) These pay schedules mean that income will vary from month to month as shown in the Figure below displaying the 2013 calendar year.

Paid how often	Extra Check Received			
Weekly – Starting January 4th	March	May	August	November
Biweekly – Starting January 11th		May		November

When determining income, using the lowest monthly amount received in a given month is the method to ensure that income is not overstated in any given month. (For ***erratic pay schedules*** *such as a bartender the incomes needs to be determined from the average regular and average tips – based days and/or season*) The paycheck for the weekly structure is $1,154 ($60,000/52) and the paycheck for the biweekly structure is $2,308 ($60,000/26).

Income in 8 of 12 months	Income in 4 of 12 months
$1,154 x 4 = $4,616	$1,154 x 5 = $5,770

Income in 10 of 12 months	Income in 2 of 12 months
$2,308 x 2 = $4,616	$2,308 x 3 = $6,924

In both scenarios the lowest amount in any month is $4,616 and this is what Jasper is going to use as his monthly income figure. As for the months with an extra paycheck in TABLE 1.7, this is money that can be used for many purposes which is configured after completing the budget. *(For simplicity Jasper is paid on biweekly payment schedule).*

$4,616 (Household income) - $2,735 (Expenses) = $1,881

Taxes from the IRS

As of January 2013, the government withholds 1.45% for ***Medicare*** and 6.2% for ***Social Security***. Depending on the residency, there may be state taxes withheld. The Federal tax rate is based on choices of marital status, number of exemptions being claimed other income withholding methods that are detailed in the IRS' Publication 15 Employers Tax Guide. A certified public accountant (CPA) is a great resource to help determine the amount of taxes that should be withheld each year in order not to pay tax to the government.

1.4 Building a Savings Vehicle

Jasper's calculations reveal a $1,881 surplus equating to a margin of 40.7% which is to say in business terms that for every dollar, 60.3% is allocated toward expenses and 40.7% is profit.

What constitutes a healthy profit margin is relative based on each household or for that matter, a business depending on the industry. As a matter of reference, the ***Consumer Finance Protection Bureau (CFPB)*** (a federal agency that regulates consumer protection regarding financial products and service) as of January, 2014 is recommending that mortgage lenders should not allow a borrower to obtain a mortgage loan if the ***debt-to-income ratio***, specifically the back-end ratio (debt divided by gross income) is higher than 43%. Although Jasper is paying rent, if he was paying a mortgage payment it would constitute a ratio of 26.2% ($1,309/$5,000). $1,309 is the debts to creditors including mortgage (rent in Jaspers case for this exercise), credit cards, student loans and the like. Therefore, a buffer of 16.8% is a robust position

-He needs spending money to have for his leisure meaning he is paying himself for the work he has performed

-He needs to put money into savings to account for unforeseen events in his day-to-day life and for retirement planning

1.4.1 Saving for Retirement

There are a handful of retirement savings options – if the employer does not offer a plan the employee can invest in an after tax retirement plan such as Roth (money is invested after income). The employer may offer a 401k plan (pretax) which is the most common in business. Jasper's employer has followed suit and offers the 401k plan (covered in Chapter 27) which allows an employee based on governmental rules to allow an employee to contribute up to $18,000 per year into an investment account (as of January 2016). Investing pretax reduces the amount the IRS can levee against a taxpayer.

Jasper has decided that he wants to contribute 3% of his paycheck however, his original budget projected 25% tax from $80,000 leaving $60,000. This means he has to recalculate his income per paycheck by accounting for 401k ***pretax*** (before IRS withholding) which deviates from the base number from which the original budget was calculated. Jasper needs reassess two parameters:

-Recalculate his monthly income number based on 26 weeks ($80,000 / 26 = $3,077) as he is paid on a biweekly schedule

-Recalculate his take home pay based on the two-check per month schedule and the pretax 401k contribution:

-First, the gross pay is multiplied by 3% → $3,077 x 3% = $92
-Second, the $92 is subtracted from the $3,077 → $3,077 - $92 = $2,985
-Third, the $2,985 is multiplied by the 25% tax rate → $2,984 x .25 = $746
-Fourth, the $746 is subtracted from $2,985 → $2,985 - $746 = $2,239

Before the 401k was factored in, the take home pay was $2,308. With the 401k the result is lower by $69 bringing the new amount to $2,239. The additional benefit is that $92 per paycheck for the 401k contribution is $23 larger than the decrease in the disposable income and it will add up to $2,392 within a year's timeframe. Taking this into account the monthly take home income decreases to $4,478 from the original $4,616. This new calculation reduces the disposable income after paying bills:

$4,478 - $2,735 = $1,743

1.4.2 Emergency Fund

Most financial experts agree that having six months of disposable income is necessary for protection in the event of job loss or decrease in income. The premise is based on the time it takes an average person to find new employment which is 3-6 months. This is not necessarily a hard number as it depends on the job market and one's ***network*** (a connected group of people in the business community that can aid in a job search via business relationships).

If there is a loss of income and coupled with insufficient savings, money depletes quickly. In reviewing Jasper's budget his leisure activities would have to be put on hold along with smaller bills such as bowling and the health club membership. On the inverse items such as mortgage and car payments have to be taken care of to avoid ***defaulting*** (failing to fulfill a legal obligation such as loan). If Jasper did not have an Emergency fund he may fall into the common recourse of borrowing from retirement plans and using credit cards. These are actions than can take years to recover from.

$2,735 x 6 = $16,410

$16,410 is a large amount to save for based on Jasper's budget therefore he may choose to do it through regimenting. Using the current figure of $2,735, creating a table helps to make a determination how much can be allocated toward his goal.

Monthly Savings	Goal Obtained in:
$1,823	9.5 months
$912	18 months
$683	24 months
$460	36 months

Based on Jasper's leftover income of $1,743 it is impractical to be able to save that aggressively. In addition, as he is planning for other savings vehicles along with the likelihood of employment for three years he opts for the three year plan at $460 per month.

$1,743 - $460 = $1,283

1.4.3 Savings Account

This category can be used for a multitude of reasons often for items that are bit larger in scale than requires time accumulate money to pay for. A common example is for vacations that can cost hundreds of dollars or used to pay gifts during the December holiday season. Perhaps Jasper wants to purchase a motorcycle or pay or for bungee jumping or a parachuting experience. As savings is more of an arbitrary decision Jasper chooses to allocate $200 per month.

The benefit to this category is that it can be raised or lowered any point as it is not necessarily binned to any one item. The budget itself along with spending money (to be determined later) will handle all of Jasper’s expenses.

$1,283 - $200 = $1,083

1.4.4 Miscellaneous Fund

This topic is a broad one to cover however it is just as important as any other part of the budget. What happens if Jasper’s car suffers a flat tire or the microwave breaks and needs to be replaced? Where is the money to cover these expenses? The Miscellaneous category is used for items that come into play for a one-month cycle in short, to keep all of the other expenses from falling outside of their budgeted amounts. A good exercise to estimate a monthly expense amount is to look back over the last year or so and recall various items that dented the pocketbook. In essence, the money used for Miscellaneous could be substituted by the Savings fund and used just the same, however creating a separate category creates discipline not cross up funds and promotes a healthy challenge to maintain the intended balances each month. After Jasper created a list of the items that fit the category his goal is to dedicate $165 month. The hidden advantage of this of the Miscellaneous category is that if the money is not used in a given month it can be spent freely or saved for in the Supplemental account for future use.

$1,083 - $165 = $918

1.4.5 Rainy Day Fund

The Rainy Day fund is commonly associated with business where it behaves like the Emergency fund where a reserved amount of money is held to be used in times when regular income is disrupted or terminated so that day-to- day operations are ran as business as usual. For personal finance these funds could be used as one however, the Rainy Day fund is used more building money for things that are long-term down the road that are not feasible in the present state of life. Perhaps Jasper wants to purchase a motorcycle and a 64’ Mustang or refurbish his bathroom; this where this fund is utilized. It may also used to help supplement the Emergency fund if necessary. Based on Jasper’s budget he decides that the amount of money to allocate should be small as more pressing expenses should receive more attention.

$918 - $115 = $803

1.4.6 College Education

Knowing that college is a costly, typically more than most expenses other than a mortgage loan, Jasper’s desires to create a college fund for his son’s future education. He decides to start with $100 per month to start with aspirations to add more to it in the future. This money will be withdrawn electronically each money into a specified financial investment vehicle. (Discussed in Chapter in the Investment Section of the book)

$803 - $100 = $703

1.4.7 The Income and Expense Summary

At this point in Jasper's investigation and decisions he can now review how the income versus the expenses and the savings/investments stack up. One of the main goals with a budget is not live just to pay bills but to "pay yourself." This is why after the numbers are calculated there needs to be spending money left over to use for leisure. As to what that amount should be based on the individual but it should be fair where it isn't over or under allocation relative to what the savings goals are in the monthly budget. As long as Jasper can pay his bills, save for his present day and the future then he has covered all of his bases. From there the goal is to continue to build keep expenses in control and add more money for his savings/investing vehicles for when income is increased through raises in pay, potential tax returns and extra/bonus checks.

Item	Amount	Used for
Expenses	$2,735	Monthly, quarterly, annually, periodically
Emergency Fund	$460	In the event of job loss/decrease in income
Savings	$200	Larger expenses short term items
Miscellaneous	$165	Monthly unpredictable expenses
Rainy Day Fund	$115	Savings for long term expenses
College Education	$100	Children's future college education

After all of the money is divvied up the final tally for the Spending category is:

$4478 - $3,775 = $703

1.5 Creating Bonus Checks Internal to the Budget

A hidden aspect to the budget for a biweekly (and weekly) pay schedule that it does not account for the two months in which there is a third check (four checks for weekly). As Jasper's budget is based on two pay periods per month, the additional two yearly checks check are mutually exclusive to the budget. Additionally, the months with the third check occur six months apart as shown for 2013 for a Friday pay period beginning January with the first paycheck on the second Friday, January 11^{th}.

Schedule	Timing and amount (2013)	Yearly total
Biweekly	March and November: $2,239 each check	$4,478

There are several ways in which the money can be utilized. A common method is when an additional check arrives it acts as a cash infusion into the monthly budget. Being that the check is $2,239 it can be divided by six and allocation equally to the budget until the next check arrives.

$2,239 / 6 = $373

From here Jasper can add it to spend money which would increase the amount from $703 to $1,076.16. He may also apply it to debts that are being financed that accumulate interest or he can use it. The most logical course of action is to pay down items that are charging interest as furniture displayed in Jasper's expenses summary. Paying more on principal than the monthly amount calls for reduces the overall interest charged over a lifetime of the loan. Other common options are to use the money for more expensive items such as buying a new television, going on vacation or whatever Jasper chooses to do. This is another part of paying himself.

1.8 How to Calculate for Monthly and Bimonthly Pay Schedule

Receiving paychecks on a bimonthly basis is usually commences on the 15th and 30th of every month however a "bonus" system can be setup. Instead of receiving 26 paychecks each year, he will receive 24. Therefore, the calculations will need to be adjusted. The first step is to determine the bimonthly net amount including the 401k:

-First, the gross pay is multiplied by 3% → $80,000 x 3% = $2,400
-Second, the $2,400 is subtracted from the $80,000 → $80,000 - $2,400 = $77,600
-Third, the $77,600 is multiplied by the 25% tax rate → $77,600 x .25 = $19,400
-Fourth, the $19,400 is subtracted from $77,600 → $77,600 - $19,400 = $58,200
-Fifth, the $58,200 is divided by 24 → $58,200 / 24 = $2,425

Now that the net pay is determined multiplying it by two generates the monthly income:

$2,245 x 2 = $4,850

The next step is to subtract the monthly expenses:

$4,850 - $3,775 = $1,075

The difference between being paid weekly and biweekly as opposed to monthly is $372. ($1,075 – $703) The only difference between all three of the payment schedules is when the money is obtained. With the monthly schedule it is opposite of bonus checks therefore, if money is needed in the budget then no action is required as the $372 is already baked in. If Jasper wanted to save additional money he can add it to his savings account or other options as desired.