# Chapter 8 - Credit Card Management

Credit cards are a great tool providing the ability to buy now and pay later. The caveat is that balances accumulate along with interest and can get to point where paying them off can be huge undertaking and years to accomplish. Although, they are different in the way they are structured as with paying student and car loans which also accumulate interest. The simplest way to think about it is that when carrying a credit card or loan, every day that passes interest accumulates on top of the principal balance and that takes away from disposable income.

For most people borrowing money is necessary in order to have day to day items such as homes, cars and furniture as they are large ticket items and cost more than what people can save. This is more prevalent for people in low paying jobs and/or those just starting in the working world after high school or college. In any event, a higher ***credit score*** (a number assigned to a person that indicates to lenders their capacity to repay a loan) allows money to be borrowed at cheaper rates. Credit scores are built through establishing credit mainly through consumer loans and credit cards. In any event, by paying bills when they are due and with a manageable amount of debt, in time this will establish a favorable credit score.

Credit score ranges:

Between 700 & 850 = Very good or excellent credit score
Between 680 & 699 = Good credit score
Between 620 & 679 = Average score
Between 580 & 619 = Low credit score
Between 500 & 579 = Poor credit score
Between 300 & 499 = Bad credit score

## *Main Factors for Credit Score Development*

Bank accounts: They do not get reported to the credit bureaus, however having an account history can be a vital component when lenders consider issuing a credit card or loan for the first time. The amount of cash available becomes more prevalent when purchasing a home.

Employment history: Creditors want to see if stable employment can be maintained and in conjunction the amount of income will help to determine what a loan amounts may be given as well as the interest rates they will offer.

Residence history: Lenders will also look to see how often one moves and whether the residence is owned or rented. As with employment history, having a stable residence is looked upon as a positive.

Look to the bank: Establishing a relationship with the bank will improve the chances in obtaining a loan or credit card through them. The existing relationship should carry some weight.

Store Cards: These credit cards generally have low credit limits and more lenient approval requirements making them easier to get approval.

Finance a store purchase with a same-as-cash offer: some let consumers purchase items on credit with a deal that allows no interest for a set period of time. In essence it is a type of loan, but the key is to pay the card off during the interest-free period.

*Secure credit*: This card requires a cash collateral deposit that becomes the credit line for that account. For example, if $500 is put into the account; then it behaves like a debit card in that once the $500 is exhausted, the account goes back to a zero balance. Then more money needs to be added to use the card to use it again. This is a backdoor to establishing or reestablishing credit but it is important to understand the fees that may come with it.

### 8.1 Credit Card Interest Accumulation

To truly understand how credits cards are operate is to know how they accumulate interest. Most use the average daily balance formula:

Take the beginning balance each day and add any new advances, unpaid finance charges and subtract any credits and payments. Then all of the daily balances in the billing cycle are divided by the total number of days in the billing cycle.

| Day | Balance | Day | Balance | Day | Balance |
|---|---|---|---|---|---|
| Day 1 | $100 | Day 11 | $200 | Day 21 | $300 |
| Day 2 | $100 | Day 12 | $200 | Day 22 | $300 |
| Day 3 | $100 | Day 13 | $200 | Day 23 | $300 |
| Day 4 | $100 | Day 14 | $200 | Day 24 | $300 |
| Day 5 | $100 | Day 15 | $200 | Day 25 | $300 |
| Day 6 | $100 | Day 16 | $200 | Day 26 | $300 |
| Day 7 | $100 | Day 17 | $200 | Day 27 | $300 |
| Day 8 | $100 | Day 18 | $200 | Day 28 | $300 |
| Day 9 | $100 | Day 19 | $200 | Day 29 | $300 |
| Day 10 | $100 | Day 20 | $200 | Day 30 | $300 |

In Table above the average daily is $6,000:

**-Day 1 through 10: $100 x 10 = $1,000**
**-Day 11 through 20: $200 x 10 = $2,000**
**-Day 21 through 30: $300 x 10 = $3,000**

**$6,000 / 30 days = $200**

Next is to take the average daily balance multiply by the annual percentage rate and divided the periodic rate by 12 for the number of months in the year.

**$200 x 10% / 12 - In mathematical form: $200 x .10/12 = $1.67**

The $1.67 is added to the overall balance at the end of the billing cycle:

**$300 + $1.67 = $301.67**

**8.2 Making Minimum Payments Increase Balances**
Every credit card has a ***minimum payment*** due each month by (an established percentage of the outstanding balance). There are varying percentages typically in the neighborhood of 1% to 4%. For example, the minimum payment is $25.

The minimum payment of $25.00 will be due at least 21 days after the billing statement is mailed or emailed according to law. With the balance at $301.67, paying the $25.00 will reduce the balance only to $276.67. However, the balance is revolving and for several months the $25 minimum pay is a fraction above the accumulated interest. From this pattern, if only the minimum payment it would take 14 months to bring the balance to zero:

| Month | Begin Balance | Avg Daily Balance | Interest | New Balance | Minimum Pmt |
|---|---|---|---|---|---|
| April | $300.00 | $200.00 | $1.67 | $301.67 | $25.00 |
| May | $276.67 | $276.67 | $2.31 | $278.97 | $25.00 |
| June | $253.97 | $253.97 | $2.12 | $256.09 | $25.00 |
| July | $231.09 | $231.09 | $1.93 | $233.01 | $25.00 |
| August | $208.01 | $208.01 | $1.73 | $209.75 | $25.00 |
| September | $184.75 | $184.75 | $1.54 | $186.29 | $25.00 |
| October | $161.29 | $161.29 | $1.34 | $162.63 | $25.00 |
| November | $137.63 | $137.63 | $1.15 | $138.78 | $25.00 |
| December | $113.78 | $113.78 | $0.95 | $114.73 | $25.00 |
| January | $89.73 | $89.73 | $0.75 | $90.47 | $25.00 |
| February | $65.47 | $65.47 | $0.55 | $66.02 | $25.00 |
| March | $41.02 | $41.02 | $0.34 | $41.36 | $25.00 |
| April | $16.36 | $16.36 | $0.14 | $16.50 | $25.00 |

In looking at the figures to borrow $300 it costs $1.67. Under this scenario the credit card company has made $1.67 to provide $300 in credit or .0055% on their money. This is may seem like a respectable return in the business world however, they're looking for much greater returns. In reality most credit cards have charges occurring every month with greater balances thus generating more income. Their intent is to have consumers build balances to a point where it takes them years to pay them off while keeping payments low each month as to not crimp the budget. This also why they add credit limits so balances do not get out of control so they don't risk their investment. Hence, keeping a relatively consistent balance with small drawn-out payments will generate large profits over time creating high return on investment. When they get to this point even considering the cases where a customer defaults, as long as they've made more in payments than what they allowed for credit they still profit (considering the cost for normal business operations). From there they can write the losses off during tax time.

In first the scenario above it was based on a one-month purchasing criteria but what happens when new purchases are added with only the minimum payment being applied that is less than the interest calculation? For example, suppose a $50 purchase is added monthly at the first of the month to pay a bill with a minimum payment of 3%.

| Month | Balance | Purchases | Ave Daily Bal | Interest | New Total | Min Pmt |
|---|---|---|---|---|---|---|
| April | $300.00 | $300 | $200.00 | $1.67 | $301.67 | $25.00 |
| May | $276.67 | $50 | $326.67 | $2.72 | $329.39 | $25.00 |
| June | $304.39 | $50 | $354.39 | $2.95 | $357.34 | $25.00 |
| July | $332.34 | $50 | $382.34 | $3.19 | $385.53 | $25.00 |
| August | $360.53 | $50 | $410.53 | $3.42 | $413.95 | $25.00 |
| September | $388.95 | $50 | $438.95 | $3.66 | $442.61 | $25.00 |
| October | $417.61 | $50 | $467.61 | $3.90 | $471.50 | $25.00 |
| November | $446.50 | $50 | $496.50 | $4.14 | $500.64 | $25.00 |
| December | $475.64 | $50 | $525.64 | $4.38 | $530.02 | $25.00 |
| January | $505.02 | $50 | $555.02 | $4.63 | $559.65 | $25.00 |
| February | $534.65 | $50 | $584.65 | $4.87 | $589.52 | $25.00 |
| March | $564.52 | $0 | $564.52 | $4.70 | $569.22 | $25.00 |

After one year's time the balance (New Total column) stands at $569.22 with a total of $850 in purchases despite $247.75 payments. In looking at the table, if nothing changed in the purchasing pattern and the minimum payment structure remained the same, the balance would never reach zero because of the $50 in purchases each month.

### 8.3 The Minimum Payment Language
Often seen with credit card companies or through websites that have credit card payoff calculators, the premise is that "this card would paid off in . . . months based on this $ . . . minimum payment. The caveat is that the consumer is informed how long it will take to pay the card off but that is based on what is owed at that point in time with no new purchases.

This solidifies the sole point of credit cards position in making money. At some point in the scenario above they would lose money because the money lent out will never paid back because the purchases exceed the interest accrual and the minimum payment Therefore, in their business models they expect a certain percentage of their customers will pay back their debt so can hedge against the ones who don't.

Credit card issuers at a point had gone even deeper with their business model allowing *negative amortization* (which is when minimum monthly payments are less than the interest charged each month and therefore does not decrease debt). To curb this activity, the Office of the Comptroller of the Currency Board of Governors of the Federal Reserve System stepped in administered guidelines to eliminate negative amortization.  In no specific formula was set, but forced credit card companies to make the minimum payment to cover the month's accrued interest and a portion of the total balance. When reading the fine print for a card issuers rules on minimum payments it will read like the example below:

*If the balance is less than $25, your minimum payment will equal the balance. Otherwise, the minimum payment will be the greater of $25 or 1% of your balance plus interest (periodic interest charges) and late payment fees.*

Consequently, the **minimum payment percentage** for each credit card can be different, but generally speaking (credit card companies simply a set percentage of the balance typically designed to cover a little more than that month's finance charges). The Table below assumes Jasper has a $2,000 credit limit using the above rules to pay of 2% of the balance plus interest or $25. This scenario shows how the minimum payment allows the card issuer to bring in money every month while setting the stage to build interest owed back to them for months to come.

| Month | Balance | Purchases | Ave Daily Bal | Interest | New Total | Min Pmt |
|---|---|---|---|---|---|---|
| April | $300.00 | $300 | $200.00 | $1.67 | $301.67 | $25.00 |
| May | $276.67 | $100 | $376.67 | $3.14 | $379.81 | $25.00 |
| June | $354.81 | $100 | $454.81 | $3.79 | $458.60 | $25.00 |
| July | $433.60 | $100 | $533.60 | $4.45 | $538.04 | $25.00 |
| August | $513.04 | $100 | $613.04 | $5.11 | $618.15 | $25.00 |
| September | $593.15 | $100 | $693.15 | $5.78 | $698.93 | $25.00 |
| October | $673.93 | $100 | $773.93 | $6.45 | $780.38 | $25.00 |
| November | $755.38 | $100 | $855.38 | $7.13 | $862.50 | $25.00 |
| December | $837.50 | $100 | $937.50 | $7.81 | $945.32 | $25.00 |
| January | $920.32 | $100 | $1,020.32 | $8.50 | $1,028.82 | $25.00 |
| February | $1,003.82 | $100 | $1,103.82 | $9.20 | $1,113.02 | $25.00 |
| March | $1,088.02 | $100 | $1,188.02 | $9.90 | $1,197.92 | $25.00 |
| April | $1,172.92 | $200 | $1,372.92 | $11.44 | $1,384.36 | $27.69 |
| May | $1,356.67 | $200 | $1,556.67 | $12.97 | $1,569.64 | $31.39 |
| June | $1,538.25 | $200 | $1,738.25 | $14.49 | $1,752.74 | $35.05 |

If the minimum payment was made with no additional purchases after June it would take 94 months to pay the card off accumulating $669.09 in interest for a total of $2.669.09. This equates 2,861 days or 408 weeks or 23 cents per day in interest. When including principal plus interest this equates to .93 cents per day. In short .23 cents is a reasonable cost to pay for something; however, this means the credit card issuer made just above a 33% premium on their money.

*84 cents in comparison to common costs each month*

| Item | Daily Cost | Monthly Cost | Yearly |
|---|---|---|---|
| Credit Card | $.93 | $27.9 | $339 |
| Health Club (from budget) | $.98 | $30 | $360 |
| Electric Bill (from budget) | $1.64 | $50 | $600 |
| Coffee at coffee shop | $3.50 | $106.45 | $1,278 |

## 8.4 Making More than the Minimum Payment

It is universally understood that paying more the minimum payment is the best method to reducing credit card debt. Each credit card scenario is unique in terms of the payment that is due each month however the common practice should be to create a goal to get to a zero balance. A good method to start with is to make the minimum payment plus whatever additional money can be afforded. The following Table takes $7,100, with no additional payments that calls for a 1% minimum payment or $25. However, Jasper is going to pay 5% instead:

| Month | Balance | Purchases | Ave Daily Bal | Interest | New Total | Min Pmt |
|-------|---------|-----------|---------------|----------|-----------|---------|
| Apr | $7,100.00 | $7,100 | $7,100.00 | $59.17 | $7,159.17 | $417.13 |
| May | $6,742.04 | $0 | $6,742.04 | $56.18 | $6,798.23 | $396.09 |
| June | $6,402.13 | $0 | $6,402.13 | $53.35 | $6,455.48 | $376.13 |
| July | $6,079.36 | $0 | $6,079.36 | $50.66 | $6,130.02 | $357.16 |
| Aug | $5,772.86 | $0 | $5,772.86 | $48.11 | $5,820.96 | $339.16 |
| Sep | $5,481.81 | $0 | $5,481.81 | $45.68 | $5,527.49 | $322.06 |
| Oct | $5,205.43 | $0 | $5,205.43 | $43.38 | $5,248.81 | $305.82 |
| Nov | $4,942.99 | $0 | $4,942.99 | $41.19 | $4,984.18 | $290.40 |
| Dec | $4,693.78 | $0 | $4,693.78 | $39.11 | $4,732.90 | $275.76 |
| Jan | $4,457.14 | $0 | $4,457.14 | $37.14 | $4,494.28 | $261.86 |
| Feb | $4,232.42 | $0 | $4,232.42 | $35.27 | $4,267.69 | $248.65 |
| Mar | $4,019.04 | $0 | $4,019.04 | $33.49 | *$4,052.53* | $236.12 |

The results show the New Total at $4,052.53 which is 42.9% reduction. Comparatively speaking, after one year in the Table above with just making the 1% standard minimum payment the balance would be at $6.403.94 or a 9.8% reduction.

*Two thoughts:*

-If Jasper paid 5% for the entire duration until he reached a zero balance it would take 74 months.

-The thought here is that being able to afford the first monthly payment in April at $417.13 if that trend could continue the balance would be paid off in the 20th month.

## 8.5 Additional Ways Credit Card Companies Make Money

There a handful of ways credit card companies make money from the consumer besides charging interest, however they are all avoidable. When a minimum payment is given on a credit card it means that the payment must be paid in full by the due date or a late charge may be assessed which can be no higher than $25 for a first offense and up to $35 for a repeat offense within six billing cycles. (As of 2016) When a late payment occurs it adds to the balance in turn increasing the amount of interest that will be charged. When credit cards payments are late for two consecutive billing periods the issuer has the right raise the interest which has no cap, however the rate is commonly seen around 29.99%. The Table below shows a scenario of what happens when late payments occur.

| Month | Balance | Purchases | Ave Daily Bal | Interest | New Total | Min Pmt |
|---|---|---|---|---|---|---|
|  | $7,100.00 | $300 | $7,100.00 | $59.17 | $7,159.17 | $130.76 |
| May | $7,028.41 | $0 | $7,028.41 | $58.57 | $7,086.98 | $129.44 |
| Jun | $7,086.98 |  |  |  |  |  |
| **Late Fee** |  | *$25.00* |  |  |  |  |
| *Jun* | *$7,111.98* | $0 | $7,111.98 | $59.27 | $7,175.25 | $130.98 |
| Jul | $7,175.25 |  |  |  |  |  |
| **Late Fee** |  | *$35.00* |  |  |  |  |
| *Jul* | *$7,206.25* | $0 | $7,206.25 | $60.05 | $7,266.30 | $132.72 |
| **Interest Rate Changed to 29.99% APR** |  |  |  |  |  |  |
| Aug | $7,266.30 | $0 | $7,266.30 | $181.60 | $7,447.90 | $256.08 |
| Sep | $7,191.82 | $0 | $7,191.82 | $179.74 | $7,371.56 | $253.45 |
| Oct | $7,118.11 | $0 | $7,118.11 | $177.89 | $7,296.00 | $250.85 |
| Nov | $7,045.15 | $0 | $7,045.15 | $176.07 | $7,221.22 | $248.28 |
| Dec | $6,972.93 | $0 | $6,972.93 | $174.27 | $7,147.20 | $245.74 |
| Jan | $6,901.46 | $0 | $6,901.46 | $172.48 | $7,073.94 | $243.22 |

Due to the back to back late fees (which totaled $60) the interest rate changing to 29.99% significantly raises the amount of interest charged each month; from July at $60.05 to August at $181.60 which is 66.9% increase in the interest accumulation.

### 8.6 Paying off Multiple Cards
It is very common for consumers to have two or three cards or more that are charging interest. The most popular are the likes of MasterCard or Visa but may also include businesses that offer store cards for their products such as department stores selling electronics, clothes or home improvement items. They come in many derivations each with their own interest rate and terms and behave like any other credit card.

*Consolidate to Low Interest Rate Cards*
There are companies that offer cards that will have a temporary low introductory rate for a specified time period to pay down balances. Cards can go low as 0% and can be a good temporary solution as long as the interest accumulated after the introductory period is less than the previous cards total interest accumulation each month. This means the interest rate after the introductory period is higher than the previous card(s). The following is an example of the main highlights an issuer may offer:

| Item | Summary | Details |
|---|---|---|
| Credit Level | Excellent Credit | 700+ |
| Purchase APR | 0% intro APR until MM/YYYY; 13%, 16% or 18.9% variable APR after that. (This APR will vary with the market based on the Prime Rate) | Variable APR |
| Transfer Information | 0% intro APR until MM/YYYY; 13%, 16% or 18.9% variable APR after that. (This APR will vary with the market based on the Prime Rate) | 3% adds to principal balance |
| Annual Fee | $25 | |

The key things to note in the offering are that excellent credit is required to obtain the offer and that transfers and purchases are subject to variable interest when the introductory rate is eclipsed. Typically, the introductory time period is 6-18 months which means it is important to be able to pay the balance down during this period before the interest begins to accrue. Additionally, the future interest rate may be higher than current interest rate and there is a balance transfer fee which will add to the principal balance.

For example, suppose a Jasper has two cards one with a balance of $6,500 (17% APR) and the other with $8,200 (18% APR) totaling $14,700. The first move is to calculate the balance transfer fee.

**Credit Card 1: $6,500 x .03% = $195**
**Credit Card 2: $8,200 x .03% = $246**

The total is $441 which will bring the new total to $15,141. From here the next step is to come up with a payment plan based on the credit card issuer's terms which will be 0% for 18 months. Assuming after the 18 months the credit is in excellent standing the interest the rate is the lowest at 13% based on the APR.

*Determining the APR based on the prime rate*
The prime rate is the interest rate that commercial banks charge their most credit-worthy customers. (Usually the most prominent and stable businesses) The rate almost always stays the same between the major banks. If the prime rate is adjusted, the banks make the change at the same time. Other interest rates such as personal, automobiles and other financing loans are often pegged to the prime.

**Prime Rate**

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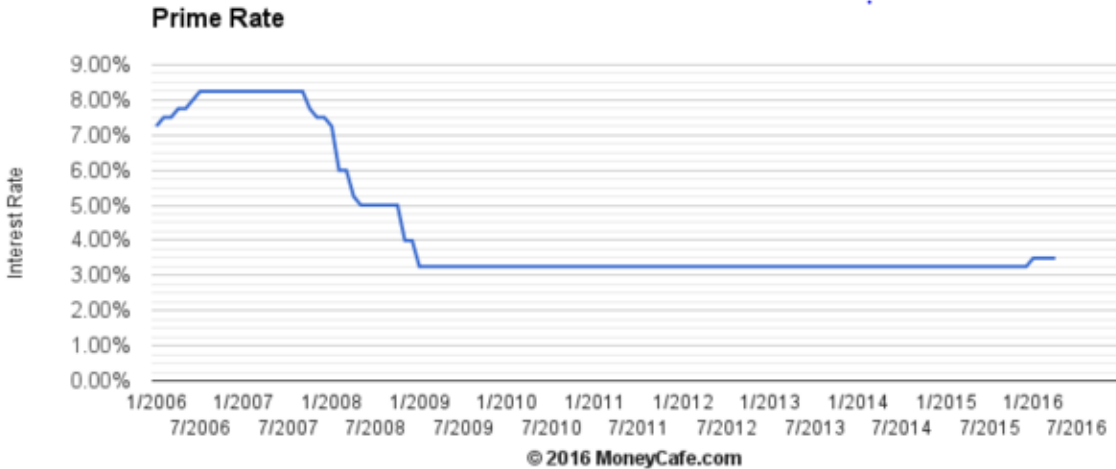
***When looking at a Credit Issuer's terms it will read in this format:***
*Variable rates may change when the Prime rate changes. We calculate variable rates by adding a percentage to the Prime rate published in (for example, the Wall Street Journal on the 25th day of each month). If the Journal is not published on that day, then see the immediately preceding edition.*

*Variable rates on the following segment(s) will be updated quarterly and will take effect on the first day of the January, April, July and October billing periods: Non-Introductory Purchase APR: Prime plus 9.5%, 12.5% or 16.4%; Non-Introductory Transfer APR: Prime plus 9.5%, 12.5% or 16.4%; Cash Advance APR: Prime plus 21.65%; Penalty APR: Prime plus 26.15%.*

In the example above receiving the 13% is stable assumption based on the trend of the prime rate due to its history of minimal fluctuations in small periods of time. Based on this information the prime rate is at 3.5%. The credit issuer assumes in their offering above that the 9.5% for excellent credit plus the prime rate at 3.5% totaling 13%.

***The Payment Plan during the Introductory Period***
Now that an established balance is at $15,141 there will for 18 months with no interest. The next premise is that by consolidating credit cards it should mean that interest rate in the future will be less than the interest rates on the previous cards. From there, the plan is to look at the minimum payments of the last month of the previous credit cards. This number will establish what payment was being afforded.

**Credit Card 1 minimum payment at $6,500 @ 17% =   $197.93**

**Credit Card 2: minimum payment at $8,200 @ 18% = $249.49**

The total comes $447.42 so this means that Jasper can afford to pay this amount every month as he has already been paying it. The new minimum payment for the first month is actually $454.23. The difference here is that the minimum payment with 0% will decrease each month; however, Jasper needs to keep the pedal to the metal and pay $454.23 every month to make a nice dent into the balance.

| Month | Balance | Purchases | Ave Daily Bal | Interest | New Total | Min Pmt |
|---|---|---|---|---|---|---|
| April | $15,141.00 | $0 | $15,141.00 | $0 | $15,141.00 | $454.23 |
| May | $14,686.77 | $0 | $14,686.77 | $0 | $14,686.77 | $440.60 |
| June | $14,246.17 | $0 | $14,246.17 | $0 | $14,246.17 | $427.39 |
| July | $13,818.78 | $0 | $13,818.78 | $0 | $13,818.78 | $414.56 |

*Minimum payment*

| Month | Balance | Purchases | Ave Daily Bal | Interest | New Total | Min Pmt |
|---|---|---|---|---|---|---|
| 18th month | $9,021.40 | $0 | $9,021.40 | $0 | $9,021.40 | $270.64 |

*Remain at $454.23*

| Month | Balance | Purchases | Ave Daily Bal | Interest | New Total | Min Pmt |
|---|---|---|---|---|---|---|
| 18th month | $7,419.09 | $0 | $7,419.09 | $0 | $7,419.09 | $454.23 |

With only the making the minimum payment for the entire zero interest term, the total after 18th months is $9,021.40 as opposed to paying $454.23 every month with a total of $7,419.09. This is a difference of $1,602.21. So by reducing the balance to $7,419.09 it is a reduction of 51%

For another frame of reference adding an additional $100 per month at $554.23 it would bring the total balance down to $5,719.09. Here the reduction would be 62%.

**8.7 Paying down Multiple Credit Cards without an Introductory Rate**
Consolidating balances using low interest rate credit cards is a beneficial opportunity if used properly however, there are people who don't have that option due to their credit scores being too low. This means late or missed payments have occurred leaving them with no option but to pay high interest rates. There two schools of thought when choosing which card to pay down:

Lowest Balance First: Provides the benefit of the *snowball effect* (a psychological effect that allows the borrower to feel empowered by paying down the lowest balance from multiple credit cards first as sense of accomplishment). The debt reduction strategy says that once the smallest debt is paid off, the borrower proceeds to the next lowest debt and so forth, gradually proceeding to the larger ones later.

Highest Interest First: This strategy results in the lowest total interest, but depending on the balance of your higher interest loans, it may take longer to see the first loan/debt completely paid off. As budgeting is about managing expenses and paying out less than what is required, the path is to first pay down the card accumulating the most interest. The only way to know which payoff method is the best is to perform calculations for both scenarios. For example, a furniture store card and a traditional credit card are accruing interest. The first task is to determine the current balance and the interest being charged rather than the interest rate itself.

| Financing | APR | Balance | Interest | Min Pmt | Budget Pmt |
|---|---|---|---|---|---|
| Furniture | 24% | $5,000.00 | $100.00 | $153 | $153 |
| Credit Card | 17% | $6,000.00 | $85.00 | $121.70 | $300 |

When analyzing the data for the furniture card the minimum payment is being made and the credit card is receiving $147 more than the minimum payment each month. While this is beneficial to reduce interest this additional money will reduce overall interest over time by redistributing that money toward the furniture card.

*Paying the lowest interest card first*
If the budget payment was made at $300 for the credit card every month until a zero balance was reached it would take 23 months with a total interest payout of $982.46.

| Begin Balance | Purchases | Avg Daily Balance | Interest | New Balance | Budget Pmt |
|---|---|---|---|---|---|
| $4,431.88 | $0 | $4,431.88 | $88.64 | $4,520.52 | $121.70 |
| $4,398.82 | $0 | $4,398.82 | $87.98 | $4,486.80 | *$427.84* |
| $4,058.96 | $0 | $4,058.96 | $81.18 | $4,140.14 | *$453.00* |

In the 23$^{rd}$ month there is $306.14 due to a partial payment remaining which can be added to the furniture card to create a new payment of $427.84. Additionally, for the months moving forward the entire $300 can be applied to the furniture card that will bring the monthly total to $453. This will allow for the card to be paid off in the 33$^{rd}$ month with a total interest amount of $2,628.66.

*Paying the highest interest card first*
In order to do this the budget needs to change so that the minimum payment for the credit card and the remaining money goes towards the credit card bringing the new monthly payment to $331.30

| Financing | APR | Balance | Interest | Min Pmt | Budget Pmt | New Pmt |
|---|---|---|---|---|---|---|
| Furniture | 24% | $5,000.00 | $100.00 | $153 | $153 | $331.30 |
| Credit Card | 17% | $6,000.00 | $85.00 | $121.70 | $300 | $121.70 |

If the new budget payment was made at $331.30 for the furniture card every month until a zero balance was reached it would be completed in the 20$^{th}$ month with a total interest accumulation of $1,011.69.

At this point the credit card in the 20$^{th}$ month has balance of $5,279.99 and is scheduled for the $121.70 payment; however, an additional $283.20 can be added to create a new payment of $404.72 due to the last payment being a partial month. Additionally, for the months moving forward the entire amount of $453 will allow the card to be paid off in the 33$^{th}$ month with a total interest accumulation of $2,044.60 in interest.

| Begin Balance | Purchases | Avg Daily Balance | Interest | New Balance | Budget Pmt |
|---|---|---|---|---|---|
| $5,253.51 | $0 | $5,253.51 | $74.42 | $5,327.93 | $121.70 |
| $5,206.23 | $0 | $5,206.23 | $73.75 | $5,279.99 | *$404.72* |
| $4,875.27 | $0 | $4,875.27 | $69.07 | $4,944.34 | *$453.00* |

*Interest Comparison*

| Pay off highest card first | Total Interest | |
|---|---|---|
| Furniture First @ $331.30 /month | $1,101.68 | *The difference between paying the highest interest card over the lowest interest card $554.84 with only a one-month difference to pay the cards off between both scenarios.* |
| Credit Card Second @ $121.70 /month | $2,044.60 | |
| *33 months to pay* | *$3,056.28* | |
| Pay off lowest card first | Total Interest | |
| Credit Card First @ $331.30/month | $982.46 | |
| Furniture Second @ $121.70/month | $2,628.66 | |
| *33 months to pay* | *$3,611.12* | |

**8.8 Diverting Budget Money to Pay Balances**

When thinking in terms of a credit card, every month that passes money is being taken away from the budget that can be reduced. Just because credit cards are afforded in the budget doesn't they aren't affecting it negatively. In looking at the credit card reduction strategy the goal is to put as much money toward the cards that reduce the most amount of interest until balances reach zero. To help further this effort is to look at the established budget and draw from areas where cash is being saved separate from money that is paid toward bills.

| | |
|---|---|
| Emergency | $460 |
| Savings | $200 |
| Miscellaneous | $165 |
| Rainy Day | $115 |
| College Fund | $100 |

The best places to drawn money from are areas that do not affect near future events. The Miscellaneous fund and is for unforeseen items and the Savings typically represent this. They are the line of defense to guard against unforeseen circumstances. The next lay layer is the Emergency Fund for major occurrences followed by the Rainy Day Fund and the College fund which are used as a "nice to have.

The goal is to tap into money when it isn't used. In any given month where Miscellaneous money has a surplus, this can be tapped into. From there, it is an objective choice however the only fund that should not be touched if all possible is Emergency Fund. The best way to decide which path to take is to try out a plan for a few months and make adjustments at each monthly cycle. It is important to note that these funds are arbitrary choices where money can be moved back and forth as desired. In addition, any money that remains in the Leftovers can be applied.