# Mortgage Acceleration Plans Part I 

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## Introduction

It is a true statement that there are only two types of people in this world: Those that want to grow wealth using their home's equity, and those that would like to pay off the debt on their home as quickly as possible.

I think the above statement is absolutely true. Many readers of this newsletter will not completely understand the question because they are not familiar with how to use a home's equity to build wealth, and instead are trying to do what most Americans do, which is count down the days until the debt on their home is paid off.

## Accounting principles of mortgages

Money is borrowed from a lender and repaid over a preset time period. Each payment has an interest component and a principal balance re-payment component. By calculating the amount of the loan, the term of the loan, and the interest rate charged, a monthly payment can be determined.

Generally speaking, each residential mortgage payment is due on the first day of each month. What many people either don't understand or don't think about is that the interest charged on a mortgage is always paid in arrears (after it has been charged). In other words, the payment a client makes in July will be paying for the interest that had been charged and accrued in the previous month of June.

In the early period of a typical home loan, the majority of the payment is applied toward interest and at the end the majority is applied towards paying down the principal loan balance.

For example, a client with a 30-year home mortgage of \$200,000 and a $6.25 \%$ interest rate will pay a monthly payment of $\$ 1,231$ for the life of the loan. What's depressing is that after paying six payments, or $\$ 7,388.58$, the principal balance of the loan has only been reduced by \$1,153.30.

## Daily Interest

Most clients don't think about the fact that interest on their residential loans is charged on a daily basis. Many clients think of a home loan as a monthly loan not a daily loan due to the fact that only one payment a month is made from the client to the lender.

If you want to roughly calculate the daily or monthly interest charges, you would use the following formula:

Balance x interest / 365 = daily interest x 30.42 = monthly interest charge.
By using the calculation from the earlier example, you would calculate the daily interest as follows: $\$ 200,000 \mathrm{X} .0625$ / 365 X number of days. You will see that the first payment in example above is $\$ 1,231.43$ of which $\$ 1,041.67$ is the interest component. The leftover amount of $\$ 189.76$ is what is applied toward principal.

It is fairly simple to determine the amount of interest that will be paid over the next 30 years. In our example, $\$ 1,231.43$ X $360=\$ 443,314.80-\$ 200,000=\$ 243,314.80$.

If you look at a further breakdown of the amortization schedule, you can see how over time the principal balance reduces due to the fact that the interest component from each payment is reduced.

| Payment | Interest Applied | Principal Applied | Balance |
| :---: | :---: | :---: | :---: |
| 1 | $\$ 1,041.67$ | $\$ 189.77$ | $\$ 199,810.23$ |
| 60 | $\$ 973.61$ | $\$ 257.83$ | $\$ 186,674.48$ |
| 240 | $\$ 574.65$ | $\$ 656.79$ | $\$ 109,675.22$ |
| 360 | $\$ 6.38$ | $\$ 1,225.05$ | $\$ 0.00$ |

Let's look at the schedule above again and consider the client's reaction to the fact that after $\$ 73,885.80$ in payments, their loan balance has only been reduced by a little over $\$ 13,000$. This reaction is why many people search to find a program that will help them reduce that balance quicker (in addition to the goal of some day having their home loan paid off).

## Acceleration Plans

Part I of this newsletter will cover three types of acceleration plans: Rounding Up, Applying the Bonus, Bi-weekly Payments. Next week I'll discuss the best plan no one knows about called H.E.A.P.

For plans, we will use the following mortgage scenario:

Original Loan Amount - \$200,000
First Payment Date - February 1st, 2007
Interest Rate - 6.25\%
Term - 30-Year Fixed
Payment - \$1,231.43

## 1) Rounding Up

Rounding up the most common way people try to accelerate their mortgage. It is as simple as rounding up the next mortgage payment to the nearest denomination of $\$ 10$, $\$ 50$, or $\$ 100$. The extra payment is applied towards the principal balance which means when interest is charged, it will be charged on a slightly lower balance. Over time a client will slowly reduce
their principal balance and this in turn will reduce the amount of interest paid over the life of the loan.

Assuming the same mortgage scenario as outlined above. By simply rounding up, to $\$ 1,240, \$ 1,250$ or $\$ 1,300$, the borrower would be applying an additional amount from $\$ 8.57$ to $\$ 68.57$ per month. The chart below will show what the additional payments would do to that term.

| Payment | Additional Annual <br> Pmt | Payoff <br> Date | Total Interest <br> Paid | Interest <br> Saved |
| :---: | :---: | :---: | :---: | :---: |
| $\$ 1,231.43$ | $\$ 0.00$ | $2 / 1 / 2037$ | $\$ 243,316.00$ | $\$ 0.00$ |
| $\$ 1,231.43$ | $\$ 1,000.00$ | $5 / 1 / 2032$ | $\$ 196,968.00$ | $\$ 46,348.00$ |

Uncle Sam has helped the client reduce the term of the loan by almost five years (which helped the client save over $\$ 46,000$ over the life of the loan).

## 2) Applying the Bonus

Annually, millions of people receive some type of cash bonus from their employer or from an income tax refund. Most people then go out and blow the bonus on some new toy. If instead the bonus was applied to the mortgage payment, look how doing so could save someone thousands of dollars in interest over the life of a loan.

Let's assume the bonus or tax refund is $\$ 1,000$ a year and assume the same bonus comes every year for the life of the loan.

Look what happens to the mortgage when you apply the extra payment.

| Payment | Additional Annual <br> Pmt | Payoff <br> Date | Total Interest <br> Paid | Interest <br> Saved |
| :---: | :---: | :---: | :---: | :---: |
| $\$ 1,231.43$ | $\$ 0.00$ | $2 / 1 / 2037$ | $\$ 243,316.00$ | $\$ 0.00$ |
| $\$ 1,231.43$ | $\$ 1,000.00$ | $5 / 1 / 2032$ | $\$ 196,968.00$ | $\$ 55,841.00$ |

Uncle Sam has helped the client reduce the term of the loan by almost five years (which helped the client save over $\$ 46,000$ over the life of the loan).
-\$1,000 x 25 years = \$25,000 additional paid
$-\$ 1,231.43(\mathrm{pmt}) \times 57$ months (term reduced by) $=\$ 70,191$ savings
-Savings of \$70,191 - \$25,000 additional paid = \$45,191 actual savings.

## 3) Bi-weekly Plans

As stated earlier, most mortgage payments are due on the first day of every month. When this payment is made, the previous month's interest that has accrued is paid. So, if the previous month had 30 days, the interest would have been accruing for 30 days.

Simple math would equate this to twelve mortgage payments every year. Using our example, 12 payments of $\$ 1,231.43$ would be annual payments of $\$ 14,777.16$.

Today, many homeowners are utilizing the bi-weekly payment program. This program allows the borrowers to make one-half of their required monthly payment every two weeks. So, on February 1, instead of paying $\$ 1,231.43$, a payment of $\$ 615.71$ is made. Then, two weeks later another payment of $\$ 615.71$ is made.

Does this make sense? Let's see. There 52 weeks in a year. If you cut that in half, a client would end up making 26 payments a year. Since the payment amount is half of the full amount the client will actually make 13 full monthly payments a year (one more than usual).

Let's compare the numbers.

|  | Payment | Principle at 5 <br> Years | Total Interest 30 <br> Years | Interest <br> Saved |
| :---: | :---: | :---: | :---: | :---: |
| Standard <br> Monthly | $\$ 1,231.45$ | $\$ 186,674.48$ | $\$ 243,316.00$ | $\$ 0.00$ |
| Bi-weekly | $\$ 615.22$ | $\$ 179,195.95$ | $\$ 187,475.00$ | $\$ 55,841.00$ |

The chart details the total interest saved over the entire term of \$55,841 and the length of the term, which on the bi-weekly plan ends up being just over 24 years or almost a 6 -year reduction.

If you get a calculator out, you will see that 26 payments of $\$ 615.22$ totals annual payments of $\$ 15,995.72$ or an additional $\$ 1,218.56$. This equates to almost one additional payment per year. However, the bi-weekly program works better because the client would be applying principal twice a month, which reduces the interest paid every time a payment is posted.

Using the example, the interest on the original $\$ 200,000$ would be accruing at approximately $\$ 34.25$ per day. By paying $\$ 615.22$ on the 15th, the accrued interest of $\$ 513.75$ ( 34.25 X 15) would be paid and $\$ 101.47$ ( $615.22-513.75$ ) would be applied to the principal. This means that for the remaining days of the month, interest would only be charged on $\$ 199,898.53$ reducing the per-day interest charged. Although that amount is minimal, it compounds over time reducing the overall interest charges by thousands of dollars.

## Summary on Acceleration Plans 1-3

The plans talked about in Part I of this newsletter are mildly interesting and plans that many readers are aware of. I certainly think using any one of the three plans is better than doing nothing and simply paying your monthly mortgage payment. As with most planning, doing nothing simply costs you money.

Next week I will show you another simple, almost completely unknown and revolutionary way to pay down the debt on your home mortgage several years quicker then the previously discussed methods.

