# Early Loan Payoff Benefits

A lot of people are paying down debt including credit card balances, car loans, and mortgages, and this isn't surprising given the economic climate and uncertainty about the future. And this is great news. Increasing our payment amounts (pre-paying principal) is a good approach if paying the debt in full is not an option. Forming a "pay-down" or debt elimination plan is a great way to start, and trying out different approaches can help us select the one that works for us. Once we select a plan, and get started, we can track our progress. Seeing the benefits of "over-paying" on loans (or any debt) is a great incentive, and part of our regular analysis and review of personal finances should include a few "what if" scenarios anyway. Let's try an example.

Scenario: Let's say that I have a car loan that I've been paying for about a year, the interest rate is 6.5%, and I'd really like to see what it would take to pay off the loan early. The original four year loan was $13,500.00 with a monthly payment of $320.15. If I were to just make the regular payments, the interest paid would be $1,867.29 making the total amount of the loan $15,367.29 (red box to the right).
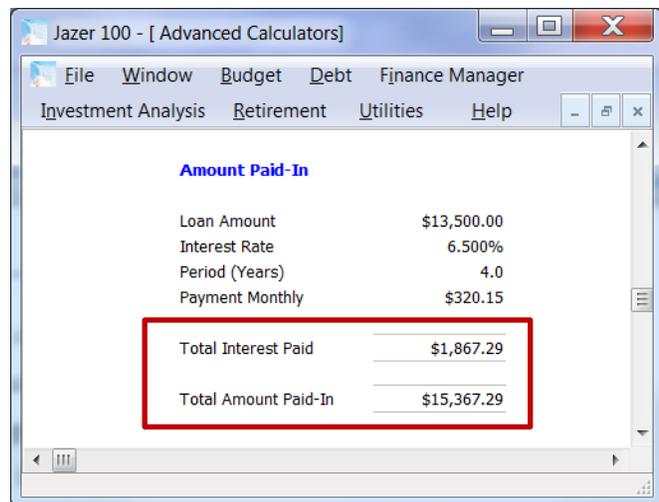
First, we need to get all of the information about the loan. I'd like to see where the loan stands in terms of where I am in the life of the loan (how many months to go), the current balance, how much of my monthly payment is going toward the principal, and how much is being eaten up by interest. Then I'll try a few different payment options and select the one that fits my financial situation and yet pays off the loan early and saves some interest at the same time.

In the window (on the next page) I can see that this month (Oct. 2012), I've already made 15 payments on the loan, and that my next payment (the payment for October) will consist of $267.88 in principal payment and the remaining $52.27 will be interest. The balance on the loan at this point is $9,650.75 (we use the September balance in this case. After Octobers' payment is made, the balance will be $9,382.87).

Jazer 100 - [Car Loan #1]

File   Window   Budget   Debt   Finance Manager   Investment Analysis   Retirement   Utilities
Help

Car Loan #1

			Total Payback	$15,367.29
Loan Amount	$13,500.00		Total Interest	$1,867.29
Interest Rate	6.500%		Over Payments	$0.00
Term in Years	4.0		Interest Savings	$0.00
Start Date	07/01/11		Monthly Payment	$320.15

Month/Year	Pymnt #	Principal	Interest	Balance	Over-Payment
Jul 2011	1	$247.03	$73.13	$13,252.97	$0.00
Aug 2011	2	$248.37	$71.79	$13,004.61	$0.00
Sep 2011	3	$249.71	$70.44	$12,754.90	$0.00
Oct 2011	4	$251.06	$69.09	$12,503.83	$0.00
Nov 2011	5	$252.42	$67.73	$12,251.41	$0.00
Dec 2011	6	$253.79	$66.36	$11,997.62	$0.00
Jan 2012	7	$255.16	$64.99	$11,742.46	$0.00
Feb 2012	8	$256.55	$63.61	$11,485.91	$0.00
Mar 2012	9	$257.94	$62.22	$11,227.97	$0.00
Apr 2012	10	$259.33	$60.82	$10,968.64	$0.00
May 2012	11	$260.74	$59.41	$10,707.90	$0.00
Jun 2012	12	$262.15	$58.00	$10,445.75	$0.00
Jul 2012	13	$263.57	$56.58	$10,182.18	$0.00
Aug 2012	14	$265.00	$55.15	$9,917.18	$0.00
Sep 2012	15	$266.43	$53.72	$9,650.75	$0.00
Oct 2012	16	$267.88	$52.27	$9,382.87	$0.00

The over-payment column on the right side is where I will enter the actual amounts by month that I over-pay once I make my decision. This way if I have to skip a month along the way, or I can increase the over-payment one month I have that option. The tool will use whatever I put in that column to calculate the totals and track the loan.

Calculating the payoff term, I enter the current balance, interest rate, and payment amount (shown at the right). There are 33 more months of payments (including October) if I continue to pay the regular payment amount. Using this calculator, I can modify the payment amount to see how much an increase in payment will affect the length of time I'll be paying the loan.

Jazer 100 - [Advanced Calculators]

File   Window   Budget   Debt   Finance Manager
Investment Analysis   Retirement   Utilities   Help

Loan Payoff Term

Current Balance	$9,650.75
Interest Rate	6.50%
Payment	$320.15
Months to Pay Off	33
(Years to Pay Off)	(2.8)

Trying different payment amounts:

If I pay an extra $50.00 each month (making my payment $370.15) I can eliminate 4 months' worth of payments (shown to the right), and have 29 months remaining instead of 33 months, but I'd like to do better.
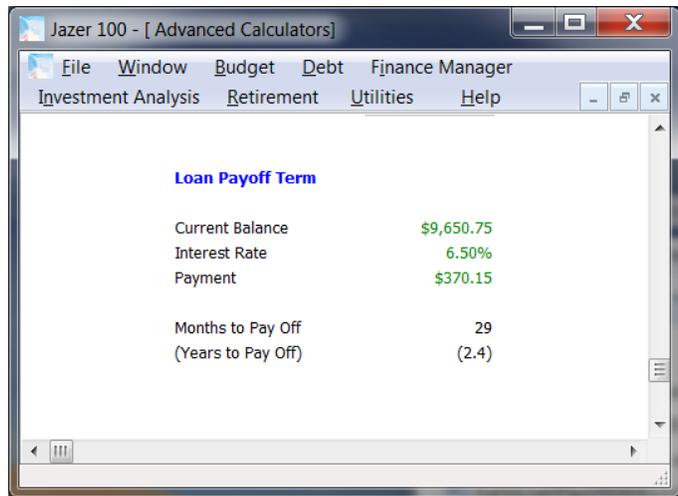
If I pay an extra $79.85 each month (making my payment $400.00) I can eliminate 7 months (not shown), but that still means over two years (26 months) of payments.

If I pay an extra $129.85 each month (making my payment $450.00), I can eliminate 10 months of payments, and have the loan paid off in just under 2 years (23 months).

This is the plan that I'd like to go forward with if possible, but there's another number that I'd like to check. The total interest that I'll pay on the loan is going to change using my new payment method,

and the difference between the new total interest and the old total interest is the amount of interest that I'll save by increasing the payment. Saving interest is a great incentive for paying a little extra, in addition to getting it paid off early.

Recall from the original loan that the total pay-back amount is $15,367.29 and the interest portion of that is $1,867.29. Using my new payment plan will reduce both of these numbers, and I could use several calculations to find the difference. For the sake of simplicity, I'll use the tool. For each month that I'm going to make an over-payment, I add the over-payment amount ($129.85) to the over-payment column beginning with October (see the screen capture on the next page).

The Total Interest now shows $1,589.42, and the Total Payback is $15,089.42 which is a reduction of $277.87 (all of this is interest saved).

Car Loan #1

			Total Payback	$15,089.42
Loan Amount	$13,500.00		Total Interest	$1,589.42
Interest Rate	6.500%		Over Payments	$2,856.70
Term in Years	4.0		Interest Savings	$277.87
Start Date	07/01/11		Monthly Payment	$320.15

Month/Year	Pymnt #	Principal	Interest	Balance	Over-Payment
Jul 2011	1	$247.03	$73.13	$13,252.97	$0.00
Aug 2011	2	$248.37	$71.79	$13,004.61	$0.00
Sep 2011	3	$249.71	$70.44	$12,754.90	$0.00
Oct 2011	4	$251.06	$69.09	$12,503.83	$0.00
Nov 2011	5	$252.42	$67.73	$12,251.41	$0.00
Dec 2011	6	$253.79	$66.36	$11,997.62	$0.00
Jan 2012	7	$255.16	$64.99	$11,742.46	$0.00
Feb 2012	8	$256.55	$63.61	$11,485.91	$0.00
Mar 2012	9	$257.94	$62.22	$11,227.97	$0.00
Apr 2012	10	$259.33	$60.82	$10,968.64	$0.00
May 2012	11	$260.74	$59.41	$10,707.90	$0.00
Jun 2012	12	$262.15	$58.00	$10,445.75	$0.00
Jul 2012	13	$263.57	$56.58	$10,182.18	$0.00
Aug 2012	14	$265.00	$55.15	$9,917.18	$0.00
Sep 2012	15	$266.43	$53.72	$9,650.75	$0.00
Oct 2012	16	$267.88	$52.27	$9,253.02	$129.85
Nov 2012	17	$270.03	$50.12	$8,853.14	$129.85
Dec 2012	18	$272.20	$47.95	$8,451.09	$129.85
Jan 2013	19	$274.38	$45.78	$8,046.87	$129.85
Feb 2013	20	$276.56	$43.59	$7,640.45	$129.85
Mar 2013	21	$278.77	$41.39	$7,231.84	$129.85
Apr 2013	22	$280.98	$39.17	$6,821.01	$129.85
May 2013	23	$283.20	$36.95	$6,407.95	$129.85
Jun 2013	24	$285.44	$34.71	$5,992.66	$129.85

Scrolling to the bottom of the loan schedule (next page), we can see that the life of the loan is also shorter. Instead of 48 payments there are now just 38 with a final payment of $66.59.

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Jazer 100 - [Car Loan #1]                                              ☐  ⬜  ✕

 File   Window   Budget   Debt   Finance Manager   Investment Analysis   Retirement   Utilities
 Help                                                                      _  ☐  ✕

      Sep 2013         27        $292.23        $27.92      $4,733.24       $129.85
      Oct 2013         28        $294.51        $25.64      $4,308.87       $129.85
      Nov 2013         29        $296.81        $23.34      $3,882.21       $129.85
      Dec 2013         30        $299.12        $21.03      $3,453.24       $129.85
      Jan 2014         31        $301.45        $18.71      $3,021.94       $129.85
      Feb 2014         32        $303.78        $16.37      $2,588.31       $129.85
      Mar 2014         33        $306.13        $14.02      $2,152.33       $129.85
      Apr 2014         34        $308.49        $11.66      $1,713.98       $129.85
      May 2014         35        $310.87         $9.28      $1,273.27       $129.85
      Jun 2014         36        $313.26         $6.90        $830.16       $129.85
      Jul 2014         37        $315.66         $4.50        $384.65       $129.85
      Aug 2014         38        $318.07         $2.08         $66.59         $0.00
      Sep 2014         39         $66.59         $0.36          $0.00         $0.00
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Increasing the payment each month will save me $277.87 in interest, and the loan will be paid off early. If I have some added expenses one month and can't make the increased payment, then that's fine. Another month when I have some additional money, I have the option to increase the over-payment and continue with my plan.

In the scenario above, we also looked at overpaying by $50.00 and didn't choose that option. To show the benefits of this scenario as well (in addition to paying off the loan early), I've re-populated the Loan Tracking tool using the $50.00 over-payment. The savings in interest would be $132.67.

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Jazer 100 - [Car Loan #1]                                              ☐  ⬜  ✕

 File   Window   Budget   Debt   Finance Manager   Investment Analysis   Retirement   Utilities
 Help                                                                      _  ☐  ✕


      Car Loan #1

                                                 Total Payback        $15,234.62
         Loan Amount      $13,500.00             Total Interest        $1,734.62
         Interest Rate        6.500%             Over Payments         $1,400.00
         Term in Years           4.0             Interest Savings        $132.67
         Start Date        07/01/11              Monthly Payment         $320.15
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If I were to put that same $50.00 into a savings account each month for 28 months, the interest received at 0.5% would be about $8.25. Not paying $132.67 in interest (the amount saved on the loan) or receiving $8.25 in interest from savings is really the choice here.

Summary: The ability to try various scenarios and see how the numbers really add up provides a tremendous benefit when planning and strategizing our personal finances. Whether we're looking at early loan payoff, debt reduction, savings, investing, or retirement, the ability to model different options beforehand helps us to choose the course of action that is right for us. Being able to track our progress and see the benefits along the way provides good incentive to keep going.

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