# "5 to 7 year payoff" Substantiation 

© John Cummuta
March 2010

## Data

- Average February 2010 30-yr fixed-rate mortgage interest rate is $\mathbf{5 . 4 0 \%}$ according to HSH Associates Financial Publishers www.hsh.com
- Average consumer credit card rate (non-reward): $\mathbf{1 5 . 3 9 \%}$ according to http://www.indexcreditcards.com/creditcardmonitor/
- Average $\mathbf{3 6}$ month used car loan is $\mathbf{7 . 0 7 \%}$ according to www.bankrate.com
- The Federal Reserve reports what is called the household debt service ratio or DSR. This measure tells us the ratio of all debt payments to disposable income. Current statistics (Q3 2009) indicate this ratio at $\mathbf{1 2 . 8 5 \%}$ - meaning that consumers spend roughly $13 \%$ of their disposable, after tax income, to pay off mortgage obligations and consumer debt such as auto and personal loans, like credit cards.
- To create the Federal Reserve's DSR measure, payments are calculated separately for revolving debt and for each type of closed-end debt, and the sum of these payments is divided by disposable personal income as reported in the National Income and Product Accounts. For revolving debt, the assumed required minimum payment is $2-1 / 2$ percent of the balance per month. This estimate is based on the January 1999 Senior Loan Officer Opinion Survey, in which most banks indicated that required monthly minimum payments on credit cards ranged between 2 percent and 3 percent and had not changed substantially over the previous decade.

Payments on closed-end loans, which are calculated for each major category of closed-end loan, are derived from the loan amount outstanding, the average interest rate, and the remaining maturity on the stock of outstanding debt.

Estimates of the amount of mortgage debt are taken from the Federal Reserve Board's flow of funds accounts, and estimates of outstanding consumer debt are taken from the Federal Reserve's G. 19 statistical release. For consumer debt, a more detailed breakdown by type of closed-end loan is obtained using internal Federal Reserve estimates and data from the Board's Survey of Consumer Finances (SCF).

Interest rates on closed-end consumer loans are obtained from the Federal Reserve's G. 19 and G. 20 statistical releases, with the exception of student loan rates, which are obtained from the Student Loan Marketing Association (Sallie

Mae). An estimate of the interest rate on the stock of outstanding debt is obtained by weighting the recent history of interest rates using information on the age of outstanding loans in the SCF. The interest rate on the stock of outstanding mortgage debt is an estimate provided by the U.S. Department of Commerce, Bureau of Economic Analysis.

Maturity series for consumer debt are taken from the G. 19 release and from the SCF. Maturity series for mortgage debt are obtained from Credit Suisse First Boston.

- That leaves $87.15 \%$ of this average household's monthly take-home pay for household living expenses (groceries, utilities, insurance, etc.), discretionary spending, and savings
- $10 \%$ more of take-home pay is used for a standard Accelerator Margin ${ }^{\mathrm{TM}}$ (the money added to debt payoff each month in the Transforming Debt into Wealth® process), so that leaves $77.15 \%$ of the household's take-home pay for household living expenses, discretionary spending, and savings
- According to the U.S. Federal Reserve "Household Debt Service Burden" report, total monthly consumer debt payments (the $12.85 \%$ of disposable income reported above) break down as follows: $56 \%$ payments on consumer debts and $44 \%$ for the mortgage P\&I payment.
- From this data, in conjunction with household income data from the U.S. Census Bureau, we can construct four statistically-representative households, on four income tiers.
- The chosen gross incomes for these households represent the midpoints of the top five household income quintiles as reported by the U.S. Census Bureau. The bottom quintile is not considered here, since these households do not generally make enough income to be granted much credit. The four household annual gross incomes are:
- Low income: $\$ 33,550$
- Middle income: $\$ 62,500$
- Upper middle: $\$ 87,500$
- Upper income: $\$ 250,000$ (this is actually the bottom of the highest reported income range, which is " $\$ 250,000$ and above")


## Calculated facts based on the above data

- The following income tax rates come from IRS Pub 15 and www.taxadmin.org :
- Low income: $9.1 \%$ Fed, $2 \%$ state
- Middle income: $12 \%$ Fed, $3 \%$ state
- Upper middle: $14 \%$ Fed, $4 \%$ state
- Upper income: $24 \%$ Fed, $5 \%$ state
- This results in take-home, after-tax (disposable) incomes of:
- Low income: $\$ 28,826$
- Middle income: $\$ 53,125$
- Upper middle: $\$ 71,750$
- Upper income: $\$ 177,500$
- The Federal Reserve's DSR (Debt Service Ratio) of $12.85 \%$ of disposable income (above) would mean these households are paying the following annual total debt payments:
- Low income: \$3,704
- Middle income: $\$ 6,837$
- Upper middle: $\$ 9,220$
- Upper income: $\$ 22,809$
- Using the $44 \%$ ratio given in the Federal Reserve's "Household Debt Service Burden" report, the mortgage P\&I payment amounts for these households would be:
- Low income: $\$ 1,630 / \mathrm{yr}$. = $\$ 136 / \mathrm{mo}$.
- Middle income: $\$ 3,008 / \mathrm{yr}$. $=\$ 251 / \mathrm{mo}$.
- Upper middle: $\$ 4,057 / \mathrm{yr} .=\$ 338 / \mathrm{mo}$.
- Upper income: $\$ 10,036 / \mathrm{yr} .=\$ 836 / \mathrm{mo}$.
- Using the HSH Associates Financial Publishers current 30-year, fixed-rate mortgage interest rate of $5.40 \%$
- And assuming the average home-owning household is around the (3-yr) midpoint of the National Association of Realtors ${ }^{\circledR}$ statistic that most households move or refinance every 5 to 7 years...
- The above monthly payments calculate to:
- Low income:
- Original loan: $\$ 24,220$
- Balance at payment $\# 36=\$ 23,135$
- Middle income:
- Original loan: \$44,700
- Balance at payment \#36 = \$42,698
- Upper middle:
- Original loan: \$60,200
- Balance at payment \#36 = \$57,504
- Upper income:
- Original loan: $\$ 148,880$
- Balance at payment \#36 $=\$ 142,211$
- Using the Federal Reserve's "Household Debt Service Burden" report, the consumer non-mortgage monthly debt payment amounts for these households would be:
- Low income: $\$ 2,276 / \mathrm{yr}$. = \$190/mo.
- Middle income: $\$ 4,195 / \mathrm{yr} .=\$ 350 / \mathrm{mo}$.
- Upper middle: $\$ 5,666 / \mathrm{yr}$. = \$472/mo.
- Upper income: $\$ 14,016 / \mathrm{yr}$. = \$1,168/mo.
- We'll assume a $50 / 50$ split of these non-mortgage total monthly debt payments between auto loan payments and credit card payments
- Using the Federal Reserve's assumed minimum monthly credit card payment of $2.5 \%$ of the outstanding balance, the above calculated monthly household credit card payments (half the total non-mortgage debt payments) correlate to these total credit card balances:
- Low income: $\$ 3,800$
- Middle income: $\$ 7,000$
- Upper middle: \$9,440
- Upper income: $\$ 23,360$
- Using Bankrate.com's 36-month used car loan rate of $7.07 \%$, the monthly household auto payments (half the total non-mortgage debt payments) calculate to these remaining auto loan balances:
- Low income: $\$ 2,820$
- Middle income: \$5,820
- Upper middle: $\$ 7,820$
- Upper income: $\$ 19,380$


## Transforming Debt into Wealth® System's results based on these four household's income and debt data

- Based on the above facts, calculations, and resulting data, the Transforming Debt into Wealth ${ }^{\circledR}$ System debt-free timelines for these households are:
- Low income: 4 yr. 9 mo.
- Middle income: 4 yr. 9 mo.
- Upper middle: 4 yr. 9 mo.
- Upper income: 4 yr. 9 mo.
- This consistency in time-to-payoff shows that the system is scalable, "No matter what your income, no matter how much debt you have," because the debt total is always proportionate to the income.
- While some of the debt amounts generated by the government statistics above may seem anecdotally low, they are what the federal government has determined them to be. And they're probably accurate when considering the whole
population, where many people haven't refinanced in decades, and some have long since paid off their homes and other debts. Only a minority of Americans have a new or recent mortgage.
- But, to fully test the Transforming Debt into Wealth ${ }^{\circledR}$ System, let's double the mortgage balances to twice the federal government's statistical values.
- This doubling would produce the following mortgage balances and monthly payments:
- Low income: \$46,270 balance/\$298 P\&I payment
- Middle income: $\$ 85,396$ balance/\$550 P\&I payment
- Upper middle: $\$ 115,008$ balance/ $\$ 842$ P\&I payment
- Upper income: $\$ 284,422$ balance/\$1,836 P\&I payment
- With these twice-as-high mortgage balances, the Transforming Debt into Wealth ${ }^{\circledR}$ System debt-free timelines work out to:
- Low income: 7 yr. 2 mo.
- Middle income: 7 yr. 2 mo.
- Upper middle: 7 yr. 2 mo.
- Upper income 7 yr. 2 mo.


## Conclusion

- Using current government statistics and measurements to construct four sample households tiered by income level, this analysis has shown that the Transforming Debt into Wealth ${ }^{\circledR}$ System would pay off each of these households’ debts in 4 years 9 months.
- Even when doubling the mortgage balances, to allow for households who have utilized debt far beyond the government's Debt Service Ratio, the Transforming Debt into Wealth® System would totally pay off each of these households’ debts in 7 years 2 months.
- So the statement that an individual or household could, "Pay off their debts, including their mortgage, in about 5 to 7 years," is substantiated.
- Also, because this analysis has shown that the TDIW system's results are scalable for the four income levels, the statement, "No matter what your income level, no matter how much debt you have," is also substantiated, because credit is granted by lenders proportionate to each borrower's income.
- Lenders use Debt to Income ratios similar in nature to the Federal Reserve's Debt Service Ratio to determine how much debt a given borrower's income can support.
- Lower income households will be granted lower total debt loads, while higher income households will be granted higher total debt loads.
- But since a given household's debt load is typically always proportionate to their income, that income can generally pay off that debt load within the approximate 5 to 7 year timeframe, providing that the household income remains at the full level that qualified the household for their debts in the first place.
- There will always be exceptions to these typical, "statistical" households, but these figures show that, for the average household - as measured mostly by the government the Transforming Debt into Wealth ${ }^{\circledR}$ System will fulfill its promises...if the household fully implements the system as taught.

