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## DEBT RATIO CALCULATIONS

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### Front-End and Back-End Ratios:

The purpose of the two debt ratio calculations are to determine how much of the borrower's income is used for their "housing costs." This is known as the "front-end" or "top" debt ratio. The other debt ratio is the "back-end" or "bottom" ratio. This is used to determine what percentage of the borrower's total gross income is used for total monthly debt service. This may also be referred to as total debt ratio.

Each loan type and credit grade will carry its own specific debt ratio requirements. The MLO is expected will be to know how to calculate the ratios and to know what the debt ratio tolerance is for the given loan the consumer is applying for.

For "A" paper conventional loans the ratios can vary widely depending on the overall strength of the file. **Generally speaking, conventional (manual) underwriting will fall into the range of 28% front-end and 36% back-end ratio.**

### Sub-Prime Ratios:

In the category of sub-prime lending, most lenders use the total debt ratio or the "back-end" or "bottom" ratio for qualifying purposes. This ratio will normally be 45% or 50%. The lender will stipulate the specific debt ratio allowance on their program matrix. Once again, credit scores, pricing, loan-to-values and overall strength of the file affects this number.

**Note:** New regulations have instituted rules that restrict subprime loans to a maximum total debt ratio of 50%.

**Grossing-up Income:** When an MLO encounters a borrower that is receiving net income, such as military disability or child support payments, most underwriters will allow the MLO to 'gross up' the income by a multiplier of 1.25 (125%) and use this grossed-up income as part of the borrower's total gross monthly income.

**Example:** Military disability payments of \$750 per month would be grossed-up as such: **750 X 1.25 = \$937.50.**

Be certain to check with the lender to determine what types of income are allowed to be grossed-up as it will vary from lender to lender.

**Short term / Long term debts:** Short term debts are those installment loans (that are not auto leases) that will be paid in full in ten months or less. Long term debts are those installment loans that will require more than 10 months to pay in full.

**Note:** Bone fide short term debt payments normally do not have to be included as part of the back-end debt ratio calculation.

## Pre-Qualifying Debt Ratio - Case Study

Joseph and Patricia Parker intend to refinance their two home mortgages by combining them into one 15-year fixed rate loan at 7%. Their current first mortgage is a 30-year loan at 8% with 24 years left to pay. The P&I is \$1,100.65 and the outstanding balance is \$140,737.94. The second mortgage was for 10 years at 9.5% with eight years left to pay. The P&I payment is \$517.59 and the outstanding balance is \$34,712.24.

Included in the new housing payment will be property taxes of \$125.00/month and \$30.00/month for homeowners insurance. Because they are borrowing more than 80% LTV, they will also have a \$65.00/month premium for private mortgage insurance.

In addition to the new mortgage, they have three years left on a car loan at \$425.00/month. They have four outstanding credit cards with minimum payments of \$175.00, \$100.00, \$90.00 and \$65.00/month. Patricia has a student loan with five years left, costing \$125.00/month. They also have a finance company loan for five years with a \$110.00 monthly payment.

The total closing costs and pre-paid finance charges will total \$4,549.82 and the Parkers want to include them in the new loan.

Joe works as a line foreman at a local manufacturing plant. He regularly works 40 hours a week and earns \$19.50/hour. He also receives non-taxable military disability pay of \$1,850.00/month. Patricia is working as an office manager of a large medical practice and earns a salary of \$50,000.00/year.

The Parkers recently had the house appraised at \$200,000.00.

The Parker's projected new P&I payment is \$1,617.89.

### Case Study Exercise

Complete the debt ratio worksheet and answer the following questions.

1)	What is the Parker's new loan amount?	\$
2)	What is the LTV of the new loan?	%
3)	How much will their PITI payment be?	\$
4)	What will the Parker's "front-end" debt ratio be?	%
5)	What will the Parker's "back-end" debt ratio be?	%
6)	How much would it cost the Parkers if they chose to pay one discount point to buy the rate down?	One Point = \$
7)	Bonus Question: If the Parkers were purchasing a home with the same terms and loan amount of \$180,000 and they were closing on April 18th, how much pre-paid interest would they be required to bring to the closing table?	\$

<h2 style="margin: 0;">Debt Ratio Worksheet</h2>					
Borrower(s): Joseph and Patricia Parker					
Home value or sales price	Loan Amount	LTV	Term	Interest Rate	
\$200,000			15 years	7%	
Income		Housing Payments		Other Debt Payments	
Borrower Base	\$	Principal Interest	\$1,617.89	Auto Loan 1	\$425.00
Borrower Other	\$	RE Taxes	\$125.00	Auto Loan 2	\$
Co-borrower Base	\$	Homeowners' Insurance	\$30.00	Auto Loan 3	
Co-borrower Other	\$	Mortgage Insurance	\$65.00	Installment Loan 1	\$125.00
Other Income	\$	PITI	\$	Installment Loan 2	\$110.00
<b>Total Gross Income</b>		<b>Total Housing Payment</b>		Installment Loan 3	\$
<b>\$</b>		<b>\$</b>		Installment Loan 4	\$
<b>Disability Income Grossed Up</b>  <b>\$1,850 X 1.25 =</b>		<b>Total payments excluding installment loans with less than 10 months left to pay</b>  <b>\$</b>		Revolving Loan 1	\$175.00
				Revolving Loan 2	\$100.00
				Revolving Loan 3	\$90.00
				Revolving Loan 4	\$65.00
<b>\$</b>		<b>\$</b>		Other	\$
				Other	\$
<b>\$</b>		<b>\$</b>		Other	\$
				Other	\$
<b>\$</b>		<b>\$</b>		Sub-Total	
				<b>\$</b>	
Debt Ratios					
<u>Total Monthly Housing Payment</u> =		<b>\$</b>		Front- or Top-End Ratio	
Total Gross Income =		<b>\$</b>		<b>%</b>	
<u>Total Monthly Debt Payment</u> =		<b>\$</b>		Back- or Bottom-End Ratio	
Total Gross Income =		<b>\$</b>		<b>%</b>	