

## Interest Rate Risk Measures

### Office of Thrift Supervision Risk Modeling & Analysis Division

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For further information  
please contact:  
Scott Ciardi  
(202) 906-6960

### Risk Modeling & Analysis Division

Scott Ciardi, Director  
Jonathan D. Jones

1700 G Street, N. W.  
Washington, D.C.

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The attached tables present the industry statistics for several measures of interest rate risk (IRR): the Pre-Shock Net Portfolio Value (NPV) Ratio, the Interest Rate Sensitivity Measure, the Post-Shock NPV Ratio, and the Change in NPV Ratio. These measures are defined in footnotes found in the tables. These tables can be used to assess an institution's level of IRR.

For example, an institution can find its approximate Post-Shock NPV Ratio ranking by referring to Table 3 on the following page. Assume XYZ Savings has a Post-Shock NPV Ratio of 8.6%. In the last column of the table, locate the first value that is larger than XYZ's Post-Shock NPV Ratio. For XYZ Savings, this corresponds to the second row of the table.

The first column of the second row presents XYZ's overall Post-Shock ranking: XYZ's Post-Shock NPV Ratio places this institution in the first quintile (the worst 20%) of the industry. The second column shows an institution's rank with greater precision. XYZ's Post-Shock NPV Ratio is among the bottom (worst 15%) of the industry for the current quarter.

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The Interest Rate Risk Measures reports are no longer available on the OTS PubliFax system. All documents previously available on PubliFax will be provided through the OTS Website.



# Interest Rate Risk Measures

**TABLE 1: Pre-Shock NPV Ratio\* as of 06/30/2005**

	Quintile	Percent of Industry	*Pre-Shock NPV Ratio
WORST	1st	10	10.1
		15	10.5
		20	11.1
	2nd	30	12.0
		40	12.7
BEST	3rd	50	13.7
		60	15.0
	4th	70	16.5
		80	18.6
	5th	85	20.5
	90	24.1	

\* The Pre-Shock NPV Ratio is defined as the base-case (pre-shock) NPV divided by the present value of assets in the base-case.

**TABLE 2: Interest Rate Sensitivity Measure\* as of 06/30/2005**

	Quintile	Percent of Industry	*Sensitivity Measure
WORST	1st	10	332
		15	302
		20	273
	2nd	30	233
		40	198
BEST	3rd	50	169
		60	144
	4th	70	118
		80	94
	5th	85	81
	90	69	

\* The Interest Rate Sensitivity Measure is defined as the decline (in basis points) in the NPV ratio caused by a +200 bp increase or -200 bp decrease in rates, whichever produces the larger decline.

**TABLE 3: Post-Shock NPV Ratio\* as of 06/30/2005**

	Quintile	Percent of Industry	*Post-Shock NPV Ratio
WORST	1st	10	8.3
		15	8.9
		20	9.5
	2nd	30	10.3
		40	11.3
BEST	3rd	50	12.0
		60	12.9
	4th	70	14.1
		80	16.5
	5th	85	18.7
	90	21.5	

\* The Post-Shock NPV Ratio is defined as the Net Portfolio Value (NPV) ratio after a +200 bp increase or -200 bp decrease in rates, whichever produces the smaller ratio.

**TABLE 4: NPV Ratio\* by Interest Rate Scenario as of 06/30/2005**

	Quintile	Percent of Industry	*NPV Ratio Less Than:	
			-200 bp	+200 bp
WORST	1st	10	9.4	8.6
		15	9.8	9.5
		20	10.4	9.9
	2nd	30	11.3	10.9
		40	12.2	11.7
BEST	3rd	50	13.2	12.4
		60	14.6	13.6
	4th	70	16.4	15.0
		80	19.1	16.8
	5th	85	20.9	18.7
	90	23.6	21.5	

\* The NPV ratio for any interest rate scenario is defined as the NPV in that rate scenario divided by the present value of assets in the same rate scenario.

**TABLE 5: Change in NPV Ratio\* by Interest Rate as of 06/30/2005**

	Quintile	Percent of Industry	*Change in NPV Ratio Less Than:	
			-200 bp	+200 bp
WORST	1st	10	-148	-323
		15	-126	-285
		20	-105	-261
	2nd	30	-77	-221
		40	-52	-176
BEST	3rd	50	-33	-141
		60	-12	-98
	4th	70	12	-56
		80	40	-14
	5th	85	66	10
	90	86	42	

\* The Change in NPV ratio is defined as the change (in basis points) in the NPV ratio caused by an interest rate shock of either -200 bp or +200 bp.

Note: The NPV ratio for any interest rate scenario is defined as the NPV in that rate scenario divided by the present value of assets in the same rate scenario. An institution's NPV is equal to the estimated present value of assets minus the present value of liabilities plus the net present value of off-balance sheet contracts. These results are based on 819 OTS-regulated institutions for which the June 2005 Interest Rate Risk Exposure Reports are available. Prepared by the Risk Modeling & Analysis Division, OTS, Washington, D.C.