# THRIFT INDUSTRY Interest Rate Risk Measures

# Office of Thrift Supervision

Risk Modeling and Analysis Division

*Release Date:* 9/22/2009



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

### Risk Modeling and Analysis Division

Scott Ciardi, Director Andrew Carayannis Jeff Adams Jonathan D. Jones

1700 G Street, N.W. Washington, DC 20552

### Second Quarter 2009

The attached tables present the final 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 relative to the industry and its respective mutual or stock peer group.

For example, an institution can find its approximate Pre-Shock NPV Ratio ranking by referring to TABLE 1 on the following page. Assume XYZ Savings has a Pre-Shock NPV Ratio of 18%. In the last column of the table, locate the first value that is larger than XYZ's Pre-Shock NPV Ratio. For XYZ Savings, this corresponds to the tenth row of the table.

The first column of the tenth row present XYZ's overall Pre-Shock ranking: XYZ's Pre-Shock NPV Ratio places this institution in the fifth quintile of the industry. The second column shows an institution's rank with greater precision. XYZ's Pre-Shock NPV Ratio is better than approximately 85 percent of the industry for the current quarter.

The Preliminary Interest Rate Risk Measures report for the September, 2009 cycle will be available on the OTS Web page at http://www.ots.treas.gov/StatisticalReleases by November 12, 2009.

## THRIFT INDUSTRY

### Second Quarter 2009

# **Interest Rate Risk Measures**

Page 2

#### of 6/30/2009 Percent of \*Pre-Shock Quintile Industry **NPV** Ratio 1st 10 8.72 WORST 15 9.36 20 9.90 2nd 30 10.93 40 11.67 3rd 50 12.56 60 13.77 4th 70 15.24 BEST 80 17.74 85 5th 19.22 90 21.69

TABLE 1: Pre-Shock NPV Ratio\* as

\* 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.

Measure* as of 6/30/2009				
Quintile	Percent of Industry	*Sensitivity Measure		
1st	10	264		
	15	218		
	20	199		
2nd	30	165		
	40	128		
3rd	50	93		
	60	75		
4th	70	56		
	80	44		
5th	85	35		
	90	27		
	Quintile 1st 2nd 3rd 4th	Percent of Industry       1st     10       1st     15       20     20       2nd     30       3rd     50       60     40       4th     70       80     5th		

TABLE 2: Interest Rate Sensitivity

\* The Interest Rate Sensitivity Measure is defined as the decline (in basis points) in the NPV ratio caused by a +200 bp increase or -100 bp decrease in rates, whichever produces the larger decline.

### TABLE 3: Post-Shock NPV Ratio\* as of 6/30/2009

(	Quintile	Percent of Industry	*Post-Shock NPV Ratio
ъ	1st	10	7.40
S		15	8.18
WORST		20	8.71
N	2nd	30	9.75
+		40	10.59
	3rd	50	11.40
		60	12.37
+	4th	70	13.88
F		80	16.51
BEST	5th	85	17.80
8		90	20.19

\* The Post-Shock NPV Ratio is defined as the Net Portfolio Value (NPV) ratio after a +200 bp increase or -100 bp decrease in rates, whichever produces the smaller ratio.

	TABLE 4: NPV Ratio* by Interest Rate Scenario as of 6/30/2009				
	Quintile	Percent of Industry	-100 bp	PV Ratio +200 bp ss Than:	
	1st	10	8.54	7.57	
S		15	9.14	8.30	
WORST		20	9.76	8.91	
Ň	2nd	30	10.82	10.02	
+		40	11.78	10.82	
	3rd	50	12.57	11.62	
		60	13.69	12.87	
+	4th	70	15.29	14.26	
F		80	17.97	16.66	
BEST	5th	85	19.42	17.92	
8		90	22.05	20.57	

\* 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 6/30/2009

	Quintile	Percent of Industry	-100 bp	n NPV Ratio +200 bp Than:
Ē	1st	10	-58	-260
ŝ		15	-48	-216
WORST		20	-39	-196
≥	2nd	30	-23	-161
ŧ.		40	-9	-118
	3rd	50	0	-87
		60	11	-57
ŧ	4th	70	25	-27
F		80	39	0
EST	5th	85	48	17
£		90	66	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 -100 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 747 OTS-regulated institutions for which the Jun 2009 Interest Rate Risk Exposure Reports are available.

Prepared by the Risk Modeling and Analysis Division, OTS, Washington, D.C., 9/22/2009.

## THRIFT INDUSTRY

## Interest Rate Risk Measures - Mutuals

Page 3

#### of 6/30/2009 Percent of \*Pre-Shock Quintile Industry **NPV** Ratio 1st 10 9.99 WORST 15 10.85 20 11.37 2nd 30 12.50 40 13.41 3rd 50 14.62 60 16.16 4th 70 17.66 BEST 80 19.50 85 5th 20.91 90 23.72

TABLE 6: Pre-Shock NPV Ratio\* as

\* 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.

Measure* as of 6/30/2009			
(	Quintile	Percent of Industry	*Sensitivity Measure
Ъ	1st	10	325
S		15	277
WORST		20	245
≥	2nd	30	198
+		40	169
	3rd	50	137
		60	93
+	4th	70	73
EST		80	53
щ	5th	85	49
8		90	40

TABLE 7: Interest Rate Sensitivity

\* The Interest Rate Sensitivity Measure is defined as the decline (in basis points) in the NPV ratio caused by a +200 bp increase or -100 bp decrease in rates, whichever produces the larger decline.

#### TABLE 8: Post-Shock NPV Ratio\* as of 6/30/2009

Quintile		Percent of Industry	*Post-Shock NPV Ratio
	1st	10	8.38
S		15	9.49
WORST		20	9.96
Ň	2nd	30	11.07
+		40	11.83
	3rd	50	13.21
		60	14.38
+	4th	70	16.40
F		80	17.85
BEST	5th	85	19.12
8		90	22.21

\* The Post-Shock NPV Ratio is defined as the Net Portfolio Value (NPV) ratio after a +200 bp increase or -100 bp decrease in rates, whichever produces the smaller ratio.

ТА	TABLE 9: NPV Ratio* by Interest Rate Scenario as of 6/30/2009				
	Quintile	Percent of Industry	-100 bp	PV Ratio +200 bp ss Than:	
E.	1st	10	9.76	8.65	
S		15	10.69	9.54	
WORST		20	11.40	9.97	
$\geq$	2nd	30	12.31	11.25	
+		40	13.44	11.93	
	3rd	50	14.80	13.33	
		60	16.34	14.47	
+	4th	70	17.85	16.46	
F		80	19.97	17.99	
BEST	5th	85	21.38	19.23	
8		90	24.37	22.21	

\* 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 10: Change in NPV Ratio\* by Interest Rate as of 6/30/2009

	Quintile	Percent of Industry	-100 bp	n NPV Ratio +200 bp Than:
E	1st	10	-50	-311
WORST		15	-40	-275
Ь		20	-28	-240
≥	2nd	30	-14	-196
<b>↑</b>		40	-3	-165
	3rd	50	7	-133
		60	23	-92
ŧ	4th	70	34	-63
EST		80	50	-34
щ	5th	85	62	-19
m		90	75	1

<sup>\*</sup> 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 -100 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 286 OTS-regulated institutions for which the Jun 2009 Interest Rate Risk Exposure Reports are available.

Prepared by the Risk Modeling and Analysis Division, OTS, Washington, D.C., 9/22/2009.

**FINAL STATISTICS** 

## THRIFT INDUSTRY

### Second Quarter 2009

## **Interest Rate Risk Measures - Stock**

Page 4

#### of 6/30/2009 Percent of \*Pre-Shock Quintile Industry **NPV** Ratio 1st 10 7.99 WORST 15 8.89 20 9.36 2nd 30 10.28 40 10.98 3rd 50 11.66 60 12.48 4th 70 13.74 BEST 80 15.41 85 5th 17.39 90 20.44

TABLE 11: Pre-Shock NPV Ratio\* as

\* 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.

Measure* as of 6/30/2009				
(	Quintile	Percent of Industry	*Sensitivity Measure	
F	1st	10	213	
S		15	196	
WORST		20	181	
≥	2nd	30	134	
+		40	106	
	3rd	50	85	
		60	65	
+	4th	70	48	
L.		80	37	
щ	5th	85	31	
8		90	23	
BEST +	4th	50 60 70 80 85	85 65 48 37 31	

TABLE 12: Interest Rate Sensitivity

\* The Interest Rate Sensitivity Measure is defined as the decline (in basis points) in the NPV ratio caused by a +200 bp increase or -100 bp decrease in rates, whichever produces the larger decline.

#### ABLE 13: Post-Shock NPV Ratio\* as of 6/30/2009

Quintile		Percent of Industry	*Post-Shock NPV Ratio
E.	1st	10	7.05
S		15	7.65
WORST		20	8.26
N	2nd	30	9.07
+		40	10.05
	3rd	50	10.72
		60	11.42
+	4th	70	12.64
F		80	14.25
BEST	5th	85	16.11
8		90	19.00

\* The Post-Shock NPV Ratio is defined as the Net Portfolio Value (NPV) ratio after a +200 bp increase or -100 bp decrease in rates, whichever produces the smaller ratio.

TABLE 14: NPV Ratio* by Interest Rate Scenario as of 6/30/2009				
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\* 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 15: Change in NPV Ratio\* by Interest Rate as of 6/30/2009

Quintile	Percent of Industry	-100 bp	n NPV Ratio +200 bp Than:
1st	10	-69	-208
	15	-53	-194
	20	-43	-171
2nd	30	-29	-128
	40	-13	-92
3rd	50	-3	-65
	60	6	-35
4th	70	20	-9
	80	34	17
5th	85	40	32
	90	56	64
	1st 2nd 3rd 4th	Industry   1st 10   15 20   2nd 30   40 30   3rd 50   60 60   4th 70   80 55th	Industry     -100 bp Less       1 st     10     -69       15     -53       20     -43       2nd     30     -29       40     -13       3rd     50     -3       60     6       4th     70     20       80     34       5th     85     40

\* 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 -100 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 461 OTS-regulated institutions for which the Jun 2009 Interest Rate Risk Exposure Reports are available.

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