#### THRIFT INDUSTRY

# **Interest Rate Risk Measures**

# Office of the Comptroller of the Currency

Credit and Market Risk Policy

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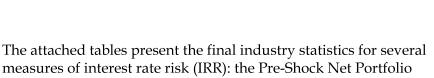
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#### Credit and Market Risk Policy

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#### Third Quarter 2011



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 December, 2011 cycle will be available on the OTS Web page at http://www.ots.treas.gov/StatisticalReleases by February 28, 2012.

# **Interest Rate Risk Measures**

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TABLE 1: Pre-Shock NPV Ratio\* as of 9/30/2011

	Quintile	Percent of Industry	*Pre-Shock NPV Ratio
Н	1st	10	9.30
S		15	10.11
WORST		20	10.74
≥	2nd	30	11.78
1		40	12.61
	3rd	50	13.48
		60	14.60
*	4th	70	16.09
L		80	18.32
BEST	5th	85	19.96
m		90	22.18

<sup>\*</sup> 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 9/30/2011

Quintile		Percent of Industry	*Sensitivity Measure
_	1st	10	157
S		15	129
6		20	114
WORST	2nd	30	90
EST ←		40	67
	3rd	50	57
		60	48
	4th	70	38
		80	28
ш	5th	85	24
B		90	17

<sup>\*</sup> 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 9/30/2011

Quintile	Percent of Industry	*Post-Shock NPV Ratio
1st	10	8.48
	15	9.45
	20	10.09
2nd	30	11.11
	40	12.00
3rd	50	12.78
	60	14.00
4th	70	15.10
	80	17.46
5th	85	19.03
	90	20.95
	1st 2nd 3rd 4th	Industry  1st 10

<sup>\*</sup> 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 9/30/2011

	Quintile	Percent of Industry	-100 bp	PV Ratio +200 bp ss Than:
_	1st	10	8.68	9.53
S		15	9.79	10.40
WORST		20	10.37	10.99
3	2nd	30	11.38	11.91
<b>†</b>		40	12.32	12.80
	3rd	50	13.27	13.52
		60	14.36	14.63
* <b>+</b>	4th	70	16.01	15.90
L		80	18.18	17.92
BEST	5th	85	19.77	19.45
ω		90	21.93	20.96

<sup>\*</sup> 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 9/30/2011

Quintile	Percent of Industry	-100 bp	NPV Ratio +200 bp Than:
1st	10	-86	-148
	15	-69	-119
	20	-59	-93
2nd	30	-47	-54
	40	-35	-28
3rd	50	-25	0
	60	-11	27
4th	70	-1	58
	80	14	89
5th	85	26	108
	90	40	132
	1st 2nd 3rd 4th	Industry  1st 10 15 20 2nd 30 40 3rd 50 60 4th 70 80 5th 85	Industry -100 bp Less  1st 10 -86 15 -69 20 -59 2nd 30 -47 40 -35 3rd 50 -25 60 -11 4th 70 -1 80 14 5th 85 26

<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 494 OCC-regulated institutions for which the Sep 2011 Interest Rate Risk Exposure Reports are available.

Prepared by the Credit and Market Risk Policy Division, OCC, Washington, D.C., 1/4/2012.

## **Interest Rate Risk Measures - Mutuals**

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TABLE 6: Pre-Shock NPV Ratio\* as of 9/30/2011

	Quintile	Percent of Industry	*Pre-Shock NPV Ratio
_	1st	10	10.74
S		15	11.32
WORST		20	11.83
≥	2nd	30	13.06
1		40	13.89
	3rd	50	14.90
		60	16.17
+	4th	70	19.02
EST		80	20.54
Щ	5th	85	22.29
œ		90	24.57

<sup>\*</sup> 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 7: Interest Rate Sensitivity
Measure\* as of 9/30/2011

Quintile		Percent of Industry	*Sensitivity Measure
$\vdash$	1st	10	164
S		15	143
6		20	125
WORST	2nd	30	97
1		40	74
	3rd	50	60
		60	49
+	4th	70	42
F		80	28
BEST	5th	85	24
m		90	18

<sup>\*</sup> 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 9/30/2011

1st 10 10.12 15 10.80 20 11.32 2nd 30 12.27 40 13.05 3rd 50 14.20 60 15.39 4th 70 17.88 15 80 19.59 5th 85 20.95 90 23.22	Quintile		Percent of Industry	*Post-Shock NPV Ratio
40 13.05 3rd 50 14.20 60 15.39 4th 70 17.88 80 19.59 5th 85 20.95	Н	1st	10	10.12
40 13.05 3rd 50 14.20 60 15.39 4th 70 17.88 80 19.59 5th 85 20.95	S		15	10.80
40 13.05 3rd 50 14.20 60 15.39 4th 70 17.88 80 19.59 5th 85 20.95	P		20	11.32
3rd 50 14.20 60 15.39 ▼ 4th 70 17.88 ► 80 19.59 5th 85 20.95	3	2nd	30	12.27
60 15.39 ▼ 4th 70 17.88 ► 80 19.59 Sth 85 20.95	1		40	13.05
4th 70 17.88 80 19.59 5th 85 20.95	EST +	3rd	50	14.20
80 19.59 5th 85 20.95			60	15.39
M		4th	70	17.88
M			80	19.59
m 90 23.22		5th	85	20.95
	m		90	23.22

<sup>\*</sup> 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 9: NPV Ratio\* by Interest Rate Scenario as of 9/30/2011

	Quintile	Percent of Industry	-100 bp	PV Ratio +200 bp ss Than:
	1st	10	10.35	10.99
S		15	10.95	11.62
WORST		20	11.48	11.88
3	2nd	30	12.66	12.83
1		40	13.80	13.75
	3rd	50	14.72	14.77
		60	16.17	16.28
+	4th	70	18.73	18.36
H		80	20.58	20.11
BEST	5th	85	22.18	20.95
m		90	24.60	23.52

<sup>\*</sup> 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 9/30/2011

Quintile	Percent of Industry	-100 bp	NPV Ratio +200 bp Than:
1st	10	-83	-159
	15	-66	-136
	20	-57	-103
2nd	30	-43	-64
	40	-30	-45
3rd	50	-21	-14
	60	-9	16
4th	70	-2	47
	80	18	70
5th	85	34	89
	90	42	121
	1st 2nd 3rd 4th	Industry  1st 10 15 20 2nd 30 40 3rd 50 60 4th 70 80 5th 85	Industry -100 bp Less  1st 10 -83 15 -66 20 -57 2nd 30 -43 40 -30 3rd 50 -21 60 -9 4th 70 -2 80 18 5th 85 34

<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 208 OCC-regulated institutions for which the Sep 2011 Interest Rate Risk Exposure Reports are available.

Prepared by the Credit and Market Risk Policy Division, OCC, Washington, D.C., 1/4/2012.

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

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#### TABLE 11: Pre-Shock NPV Ratio\* as of 9/30/2011

	Quintile	Percent of Industry	*Pre-Shock NPV Ratio
_	1st	10	8.68
S		15	9.48
WORST		20	10.01
≥	2nd	30	11.10
1		40	11.89
	3rd	50	12.67
		60	13.47
*	4th	70	14.60
EST		80	16.45
Щ	5th	85	17.09
m		90	18.98
91 110		90	18.98

<sup>\*</sup> 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 12: Interest Rate Sensitivity Measure\* as of 9/30/2011

Quintile		Percent of Industry	*Sensitivity Measure
$\vdash$	1st	10	153
S		15	122
WORST		20	107
3	2nd	30	85
1		40	65
EST +	3rd	50	54
		60	47
	4th	70	37
		80	28
	5th	85	24
a		90	15

<sup>\*</sup> 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 13: Post-Shock NPV Ratio\* as of 9/30/2011

Quintile		Percent of Industry	*Post-Shock NPV Ratio
BEST ← → WORST	1st	10	7.92
		15	8.62
		20	9.30
	2nd	30	10.37
		40	11.20
	3rd	50	12.09
		60	12.84
	4th	70	14.07
		80	15.56
	5th	85	16.23
m		90	18.30

<sup>\*</sup> 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 9/30/2011

	Quintile	Percent of Industry	*NPV Ratio -100 bp +200 bp Less Than:	
<b>→</b> WORST	1st	10	8.15	9.02
		15	8.86	9.78
		20	9.57	10.24
	2nd	30	10.68	11.23
		40	11.52	12.09
	3rd	50	12.38	12.90
		60	13.26	13.65
•	4th	70	14.39	14.74
1		80	16.32	15.99
BEST	5th	85	17.22	16.87
a		90	18.63	19.14

<sup>\*</sup> 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 9/30/2011

	Quintile	Industry -100 bp		NPV Ratio +200 bp Than:
WORST	1st	10	-91	-128
		15	-73	-106
		20	-60	-75
	2nd	30	-48	-47
1		40	-37	-13
	3rd	50	-26	12
		60	-14	39
+	4th	70	0	71
H		80	12	99
BEST	5th	85	22	121
m		90	36	159

<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 OCC-regulated institutions for which the Sep 2011 Interest Rate Risk Exposure Reports are available.

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