

The Quarterly Review of Interest Rate Risk

Office of Thrift Supervision



List of Charts and Graphs

Treasury Rates	1
Libor/Swap Rates	2
Mortgage TBA-Pricing & Risk	2
Median Pre- and Post NPV Capital Ratios	3
Median Sensitivity Measures	3
Median Effective Durations	4
Thrifts with NPV Capital Ratios Under 4 percent	4
TB-13a Matrix	5
Aggregate & Regional Data	6- 11

For further information, please contact:
 Scott Ciardi, Director
 Risk Modeling & Analysis
 (202) 906-6960

Risk Modeling & Analysis Division

Staff Contacts:

Andrew Carayannis (202) 906-6919
 Jeff Adams (202) 906-6388
 Harry Chadive (202) 906-6898

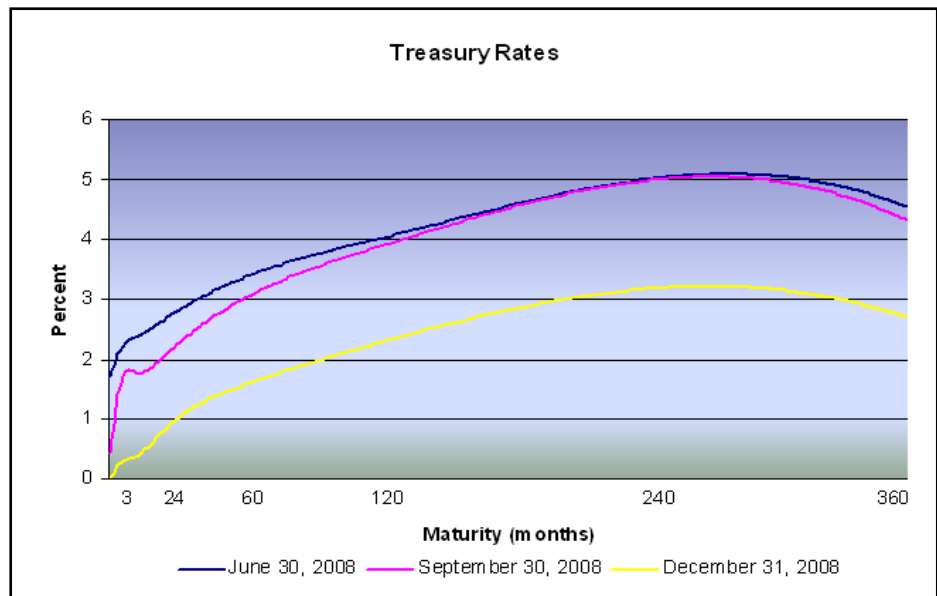
1700 G Street, N. W.
 Washington, D.C. 20552

Editor's Note: As you can see, we have made a few changes to the QR of IRR this quarter. After almost nine years, we thought it was time for a facelift. In addition to the obvious cosmetic changes, we have attempted to provide a more in-depth discussion of the quarter-to-quarter changes we are seeing in the industry's interest rate risk results. Lastly, we have eliminated the feature article from this edition, but note that it may return in future editions. Let us know what you think of our changes!

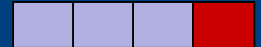
Declining Interest Rates Trigger Significant Changes to Pre-Shock Capital and Sensitivity

During the fourth quarter 2008, Treasury rates declined considerably at all maturities and the yield curve flattened modestly, with intermediate and long-term rates dropping more than short-term rates (see Exhibit - 1.) The three-month and one-year rates fell by 81 basis points (bps) and 141 bps, to .11% and .37%, respectively. The two-year, five-year and ten-year rates declined by 124 bps, 143 bps, and 160 bps to .37%, .76% and 1.55%, respectively. The 30-year rate dropped from 4.31% to 2.69%, a decline of 162 bps. The spread between the two-year and ten-year rates, a common measure of yield curve steepness, dropped from 185 bps to 149 bps, a decline of 36 bps.

Exhibit - 1



The fourth quarter changes to the Libor/Swap curve were even more dramatic, especially at the short-end of the curve (see Exhibit - 2.) The one-month and three-month Libor rates declined by an incredible 349 bps and 262 bps, respectively; and the two-year and ten-year swap rates declined by 190 bps and

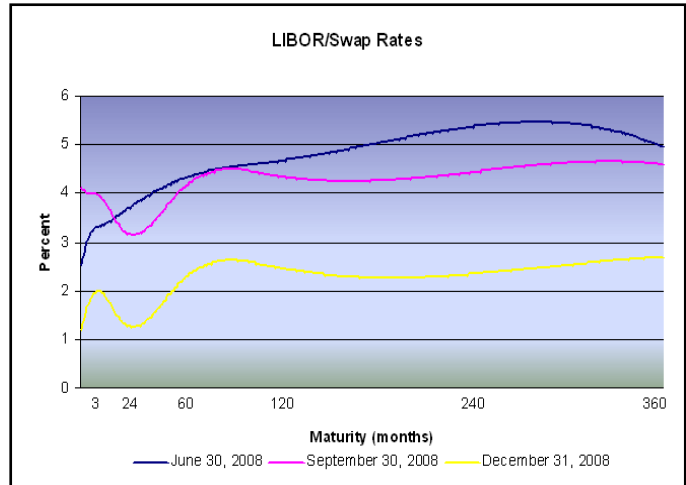


Declining Interest Rates Trigger Significant Changes to Pre-Shock Capital and Sensitivity (continued)

188 bps, respectively. The spread between the two-year and ten-year swap rates increased slightly from 101 bps to 103 bps.

The overall decline in interest rates was driven largely by three separate reductions in the Fed Funds rate that occurred during the fourth quarter. On October 8, 2008, the Federal Reserve reduced the target Fed Funds rate by 50 bps to 1.50%. Three weeks later, it dropped the rate another 50 bps, to 1.00%. The last reduction occurred on December 16, 2008, when the target rate was reduced to a range between 0 and .25%. These actions, coupled with the Federal Reserve's November 2008 announcement of a plan to purchase up to \$500 billion (subsequently increased to \$1.25 trillion in March 2009) of agency mortgage-backed securities as part of an effort to jump start the housing market, prompted a steep decline in mortgage rates. On December 31, 2008, the Fannie Mae 60-day commitment rate on a 30-year, fixed rate mortgage was 4.49%, a decline of 135 bps from the September 30, 2008 rate of 5.84%

Exhibit - 2



As expected, the steep decline in mortgage rates significantly increased the value of fixed rate mortgages while reducing weighted average lives and effective durations. As noted in Exhibit - 3, the price of a FNMA 5.00 increased from 97.28 on September 30, 2008, to 102.28 on December 31, 2008. Over the same period, the effec-

Exhibit - 3

30-YEAR CONVENTIONAL 31-Dec-08												
Coupon (%)	WAC (%)	WAM (Months)	Price	10yr Avg CPR (%)	1yr Avg CPR (%)	Yield (%)	WAL (Years)	Z-Spread (BP)	OAS (BP)	Option Cost(BP)	Eff.Duration (Years)	Eff.Convexity
4.50	5.12	349	101.56	33.86	54.30	3.59	2.09	233	162	70.83	2.41	-327.56
5.00	5.58	353	102.28	38.14	55.41	3.45	1.75	237	181	55.97	1.76	-187.04
5.50	6.02	352	102.69	41.50	56.36	3.53	1.59	251	210	40.89	1.44	-77.75
6.00	6.54	353	103.09	44.58	56.05	3.68	1.50	270	243	27.20	1.27	-53.32
6.50	7.03	347	103.69	46.83	56.44	3.64	1.41	268	254	14.77	1.14	-62.18
7.00	7.60	348	104.63	48.81	56.44	3.33	1.34	241	236	5.36	1.05	-71.98
7.50	8.11	280	104.66	38.68	45.10	4.73	1.84	364	354	10.36	1.36	-83.86
8.00	8.58	261	104.78	39.91	45.25	5.08	1.78	404	398	6.47	1.30	-80.41

30-YEAR CONVENTIONAL 30-Sep-08												
Coupon (%)	WAC (%)	WAM (Months)	Price	10yr Avg CPR (%)	1yr Avg CPR (%)	Yield (%)	WAL (Years)	Z-Spread (BP)	OAS (BP)	Option Cost(BP)	Eff.Duration (Years)	Eff.Convexity
4.50	5.12	352	94.00	16.22	18.09	6.05	6.54	206	178	27.55	5.79	245.71
5.00	5.58	356	97.28	20.43	30.64	5.90	5.20	212	174	37.97	4.86	-102.19
5.50	6.02	356	99.56	25.49	46.42	5.75	3.73	239	181	57.51	3.92	-118.27
6.00	6.54	354	101.19	30.25	54.47	5.43	2.63	254	182	72.16	2.76	-69.71
6.50	7.04	348	102.50	34.16	56.05	4.95	2.03	229	170	59.83	1.92	-63.83
7.00	7.62	349	104.47	38.37	56.29	3.85	1.70	122	95	27.37	1.43	-39.49
7.50	8.11	283	105.41	30.63	43.24	4.80	2.36	204	175	28.71	1.74	-20.59
8.00	8.58	264	105.25	32.74	43.82	5.20	2.17	254	233	21.64	1.71	-17.88



Declining Interest Rates Trigger Significant Changes to Pre-Shock Capital and Sensitivity (continued)

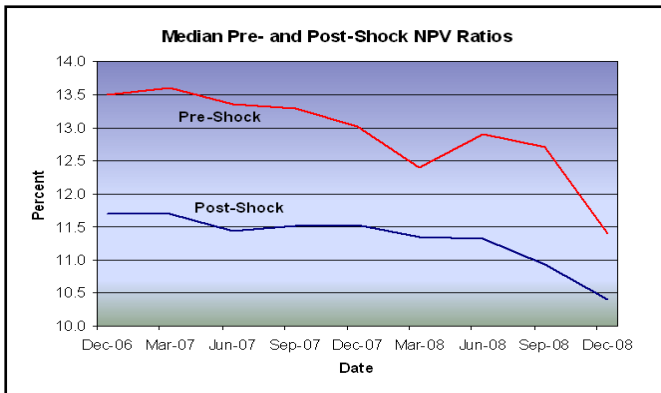
tive duration of the same security dropped from 4.86 to 1.76 and the weighted average life declined from 5.2 to 1.75.

Because the typical thrift tends to have a high concentration of long-term, fixed rate mortgages and short-term borrowings, falling interest rates usually have a beneficial impact on interest rate risk. Pre-shock NPV capital ratios typically increase due to a rise in asset values and sensitivity measures usually decrease because of faster projected prepayment speeds on fixed rate mortgages. However, the changes that occurred during the fourth quarter had an unexpected effect on the industry's IRR profile.

During the fourth quarter, 629 out of the 745 thrifts that filed Schedule CMR actually had a decrease in their pre-shock NPV capital ratio. The median pre-shock NPV

on assets, even after factoring in the shorter average life of most liabilities. Additionally, single-family mortgages possess "negative convexity" which serves to offset valuation gains that would typically be afforded to instruments without embedded prepayment options in a falling rate environment. (Keep in mind, an increase in the value of a liability has a negative impact on capital.) Thrifts with high concentrations of structured FHLB advances were particularly hard hit. In some cases, the value of these instruments rose by nine or ten percent. Second, the option-adjusted spreads on single-family mortgages increased considerably during the fourth quarter, indicating an increase in the perceived credit risk of such instruments. All things being equal, an increase in the OAS of a mortgage will decrease price. Third, deposit intangible values, which are treated as an asset in the NPV Model, declined considerably between the third and fourth quarter. In the current low rate environment, deposit intangible values tend to be low because the opportunity to pay below market rates is somewhat limited and non-interest costs tend to put a floor on the degree to which monthly cash outflows can fall. The large quarter-to-quarter change was even more pronounced because deposit intangibles are one of the few assets in NPV Model that are discounted using Libor rates. Lastly, the declining value of self-reported CMOs and trust preferred securities hit some firms particularly hard. Due to deteriorating credit quality, the aggregate value of these instruments declined considerably and further eroded pre-shock NPV capital levels.

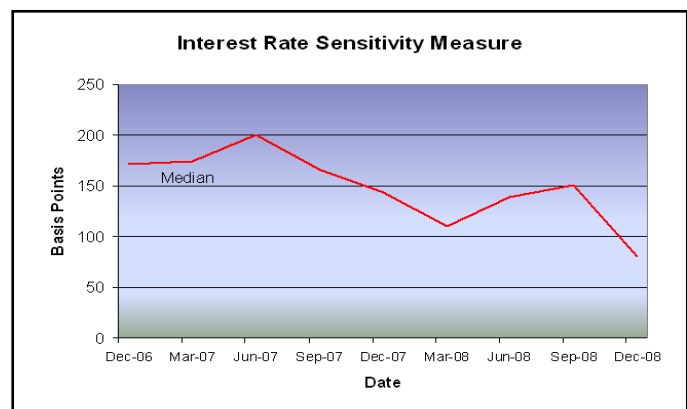
Exhibit - 4



capital ratio for the industry dropped from 12.71% to 11.35%, a decrease of 136 bps. Similarly, the median post-shock NPV capital ratio fell from 10.94% to 10.40%, a decrease of 54 bps (see Exhibit - 4.)

This unexpected result can be attributed to several factors. First, the NPV Model discounts most assets using the Treasury curve, whereas most liabilities are discounted using the Libor/Swap curve. Because the Libor/Swap rates declined much more than Treasury rates, the valuation gains on liabilities outpaced the valuation gains

Exhibit - 5





Declining Interest Rates Trigger Significant Changes to Pre-Shock Capital and Sensitivity (continued)

As expected, the median sensitivity measure for the industry dropped considerably during the fourth quarter due to the dramatic rise in projected prepayment speeds on single-family mortgages (see Exhibit - 5.) This quarter, the median sensitivity measure for the industry was 81 bps, down from 151 bps the previous quarter, a decline of 46%. Further, the sensitivity measure decreased for 578 of 756 institutions that submitted Schedule CMR, or approximately 90% of the industry.

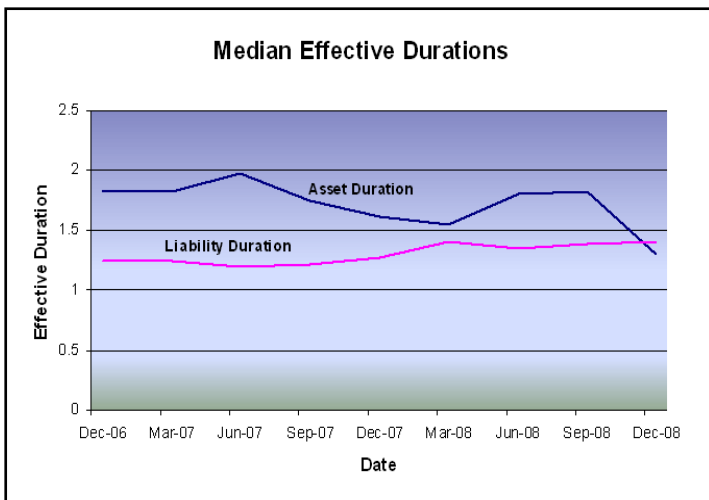
The median effective duration of assets decreased 53 bps between September and December, falling from 1.83 to 1.30. The median effective duration of liabilities increased slightly from 1.38 to 1.4; and the median duration gap for the industry slipped from .45 to -.10, indicating that a majority of the industry is now more exposed to a downward shift in interest rates (see Exhibit - 6.) The topic of negative dura-

tion gap was discussed in the third quarter 2002 edition of the [Quarterly Review of Interest Rate Risk](#). From a supervisory perspective, the steep decline in pre-shock NPV capital and the increase in the number of institutions with post-shock NPV capital ratios below four percent is cause for concern. However, the overall interest rate risk profile of the industry is still good as the dramatic decrease

in sensitivity this quarter helped offset the negative impact of the sharp decline in pre-shock NPV capital. Additionally, capital ratios, as measured by the NPV Model, are still relatively high. From a TB-13a perspective, the number of institutions with "significant" and "high" levels of interest rate risk actually declined from 40 in September to 23 in December (see Exhibit - 7.) Most notable is the change in the number of thrifts with sensitivity measures in excess of 200 bps. In September, 283 institutions had a sensitivity measure above

Exhibit - 7

Exhibit - 6

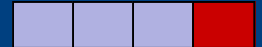


tion gap was discussed in the third quarter 2002 edition of the [Quarterly Review of Interest Rate Risk](#).

From a supervisory perspective, the steep decline in pre-shock NPV capital and the increase in the number of institutions with post-shock NPV capital ratios below four percent is cause for concern. However, the overall interest rate risk profile of the industry is still good as the dramatic decrease

	Under 100bp	101-200bp	201-400bp	Over 400bp	Total
Over 10%	230	124	47	1	402
6% to 10%	187	73	27	2	289
4% to 6%	26	8	7	1	42
Below 4%	10	6	5	2	23
Total	453	211	86	6	756

	Under 100bp	101-200bp	201-400bp	Over 400bp	Total
Over 10%	183	125	132	22	462
6% to 10%	68	80	92	9	249
4% to 6%	7	10	18	0	35
Below 4%	1	3	6	4	14
Total	259	218	248	35	760



Declining Interest Rates Trigger Significant Changes to Pre-Shock Capital and Sensitivity (continued)

200 bps, or approximately 37% of the industry. In December, the number fell to 92, or 12% of the industry.

As in the past, however, it is important to point out that our sensitivity and pre-shock NPV capital results are misleading for some institutions. Undoubtedly, prepayment activity has picked up considerably for prime, conforming loans. However, anecdotal evidence suggests that non-conforming borrowers are still encountering significant difficulty in their attempts to refinance.

As of December 31, 2008, the 30-year jumbo retail mortgage rate was 7.01%, down from 7.21% on September 30, 2008, but still well above the conforming retail mortgage rate of 5.26% at year-end. Accordingly, the prepay

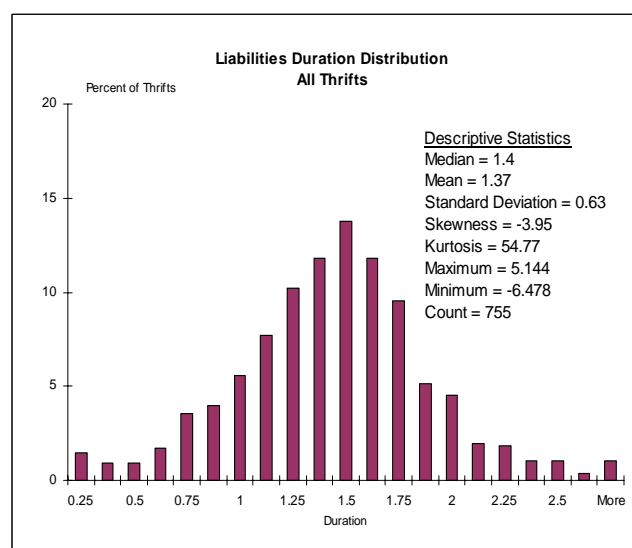
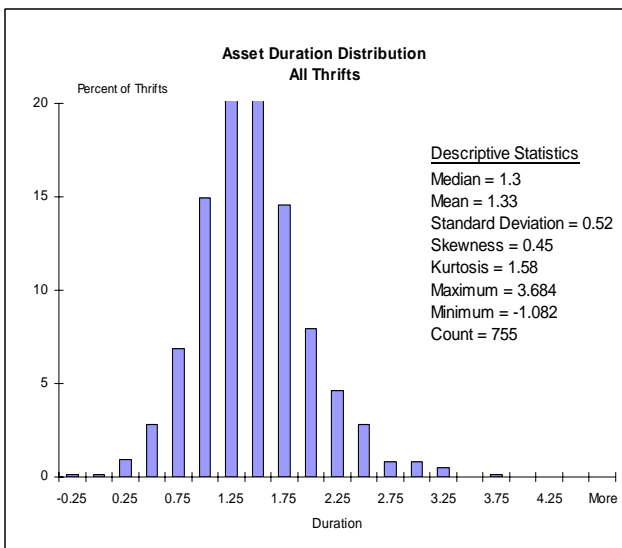
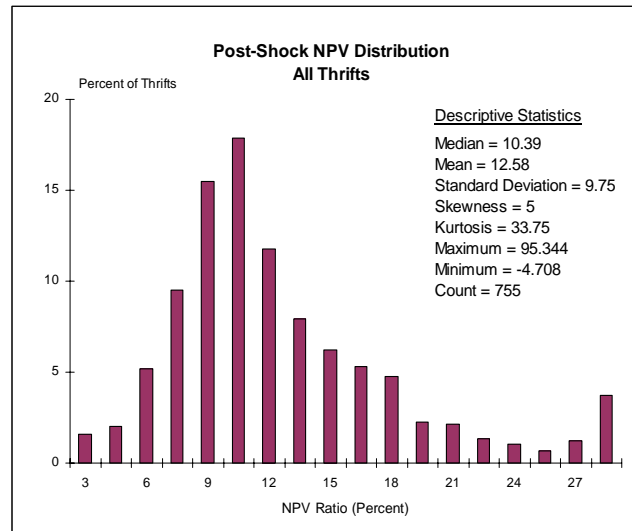
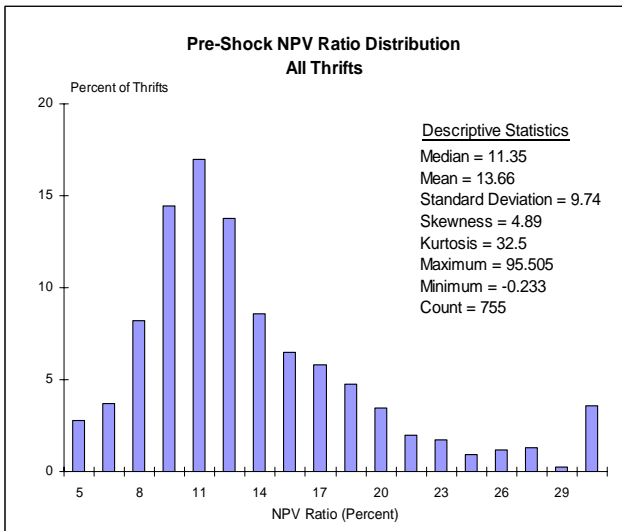
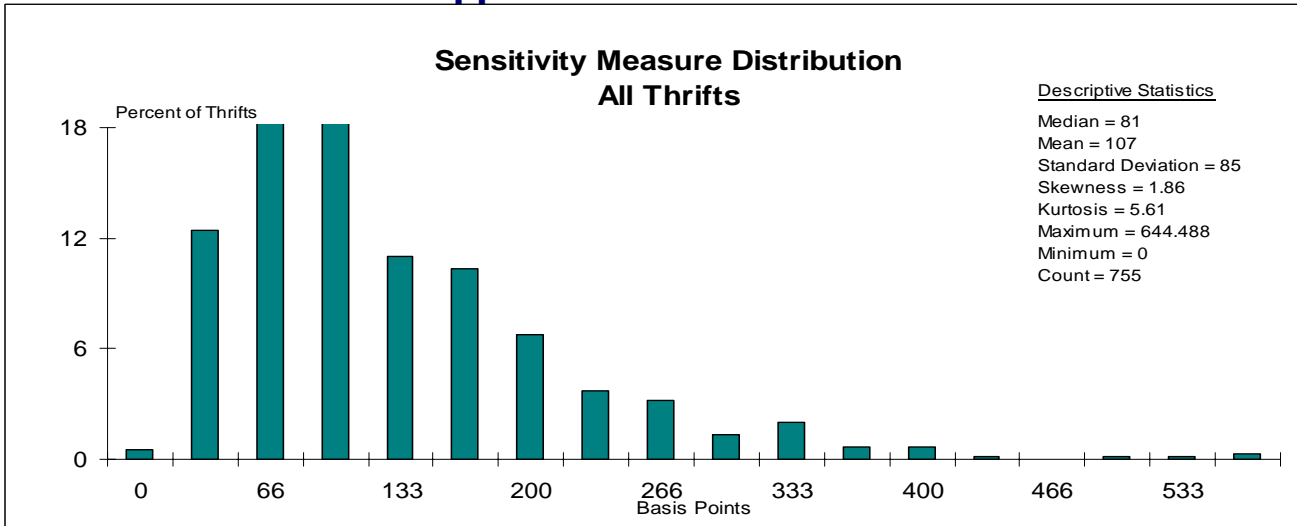
incentive on jumbo mortgages is not nearly as strong as that for conventional mortgages. In addition, many sub-prime and Alt-A borrowers may not be able to meet the stricter underwriting standards now in place at many institutions.

Because the NPV Model treats all single-family mortgage loans as prime, conforming exposures, the sensitivity measure at institutions with a considerable amount of non-conforming mortgage product may be understated and because the market price of many of these loans are well below par, the pre-shock NPV capital of these institutions may be overstated. As a result, these supervisory results should be viewed cautiously.

- by *Scott Ciardi*

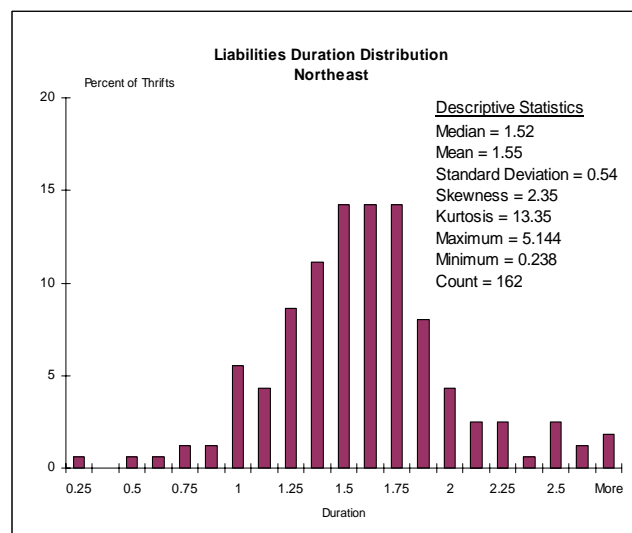
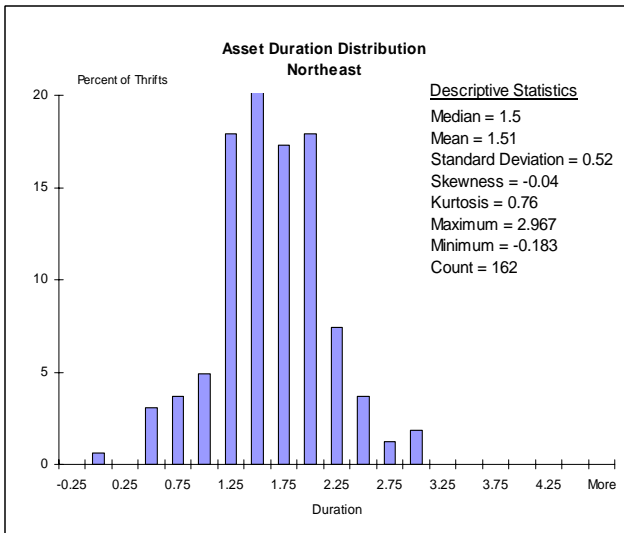
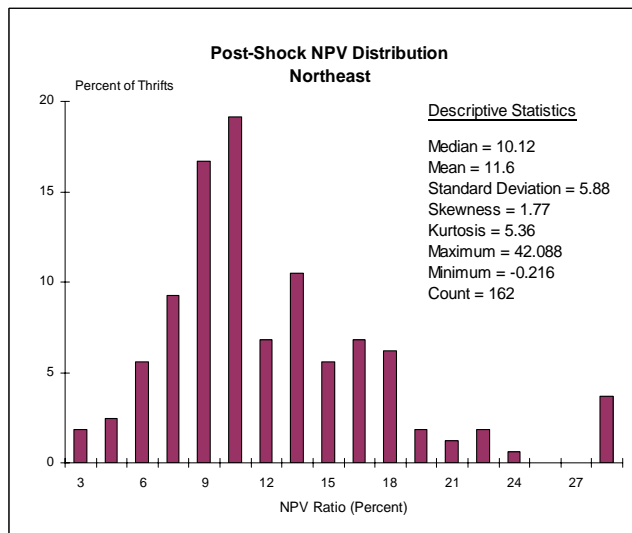
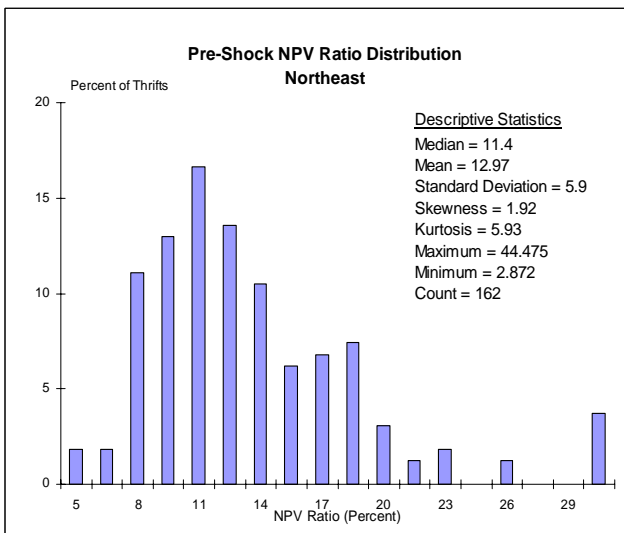
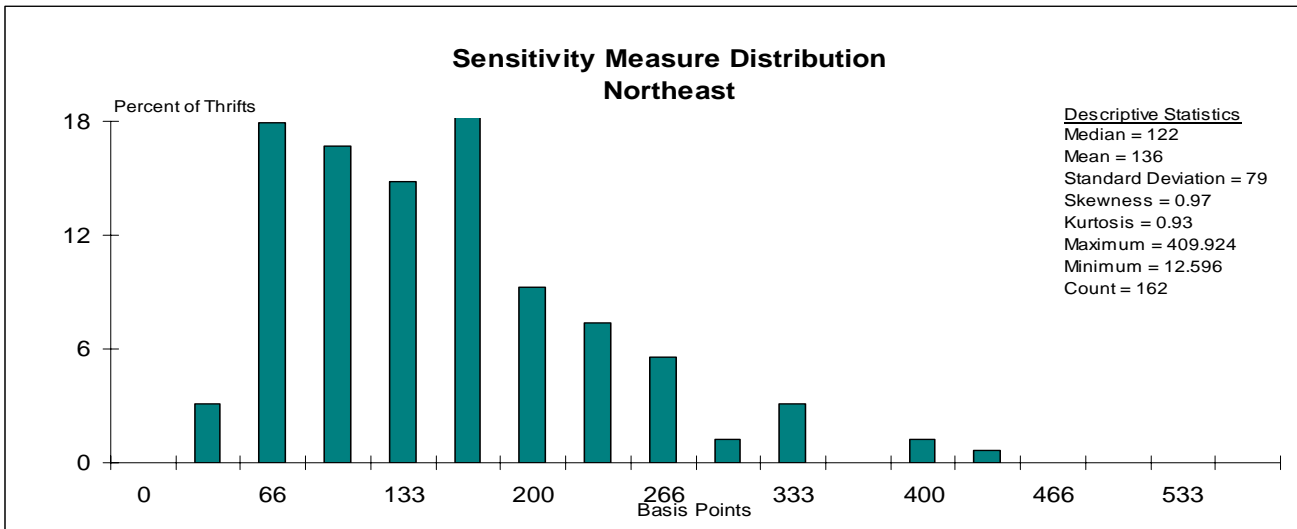


Appendix A – All Thrifts



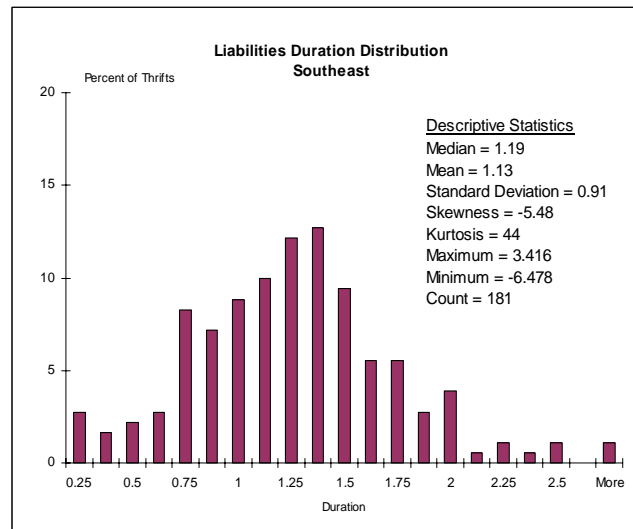
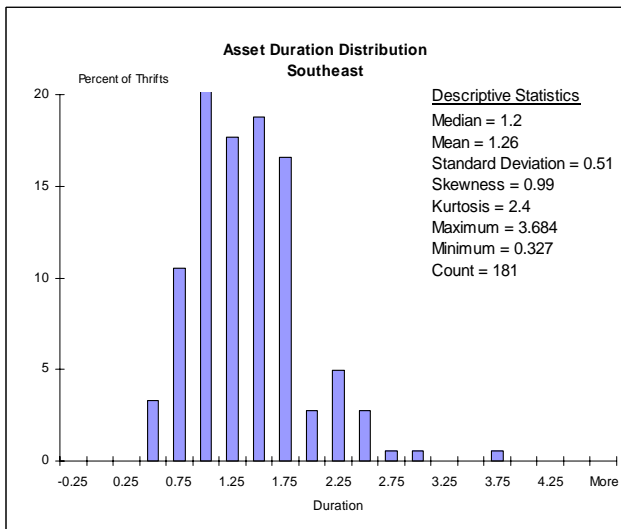
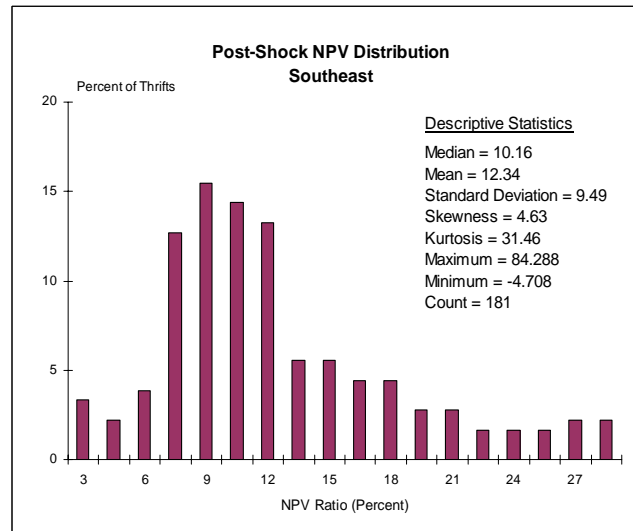
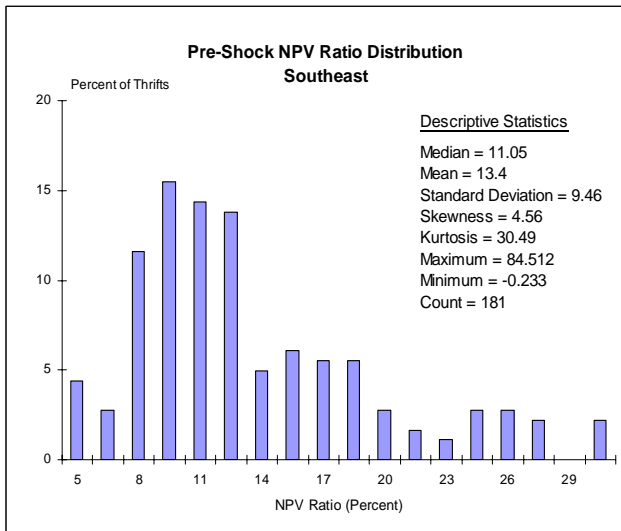
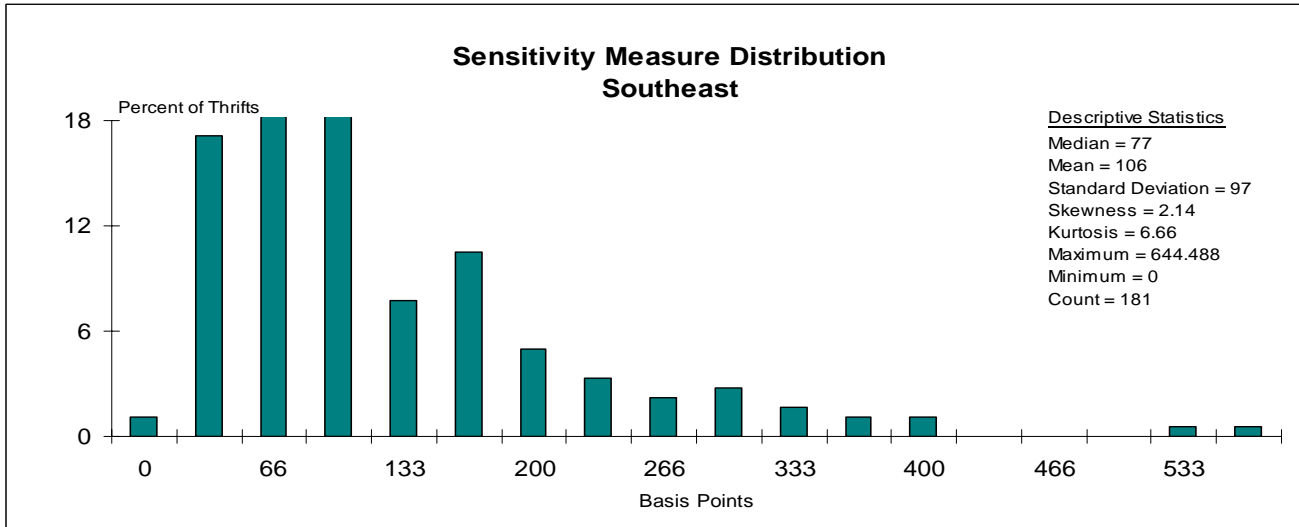


Appendix B – Northeast Region



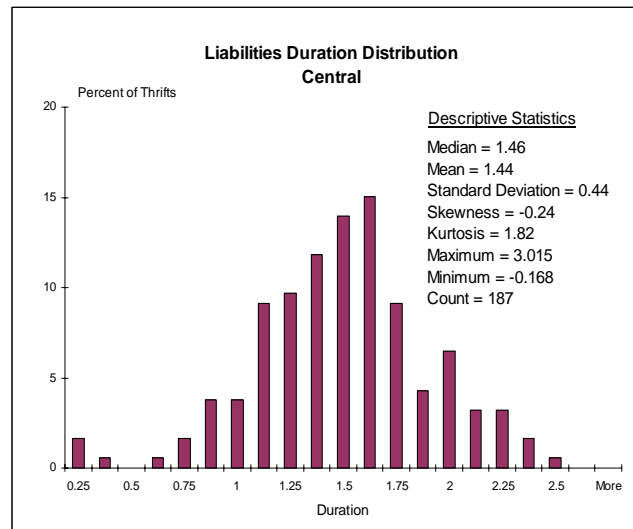
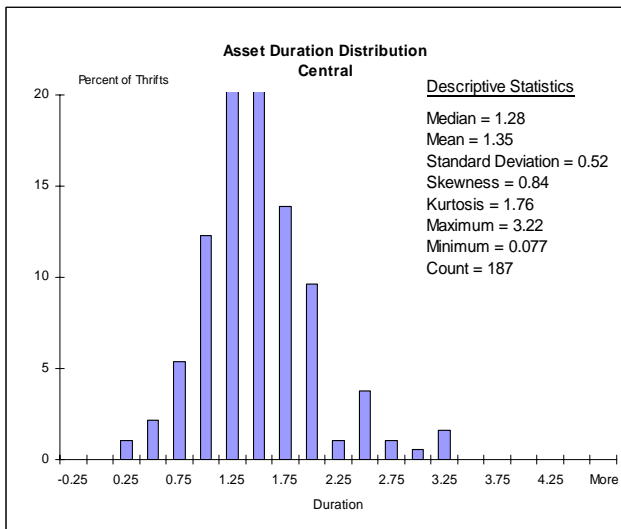
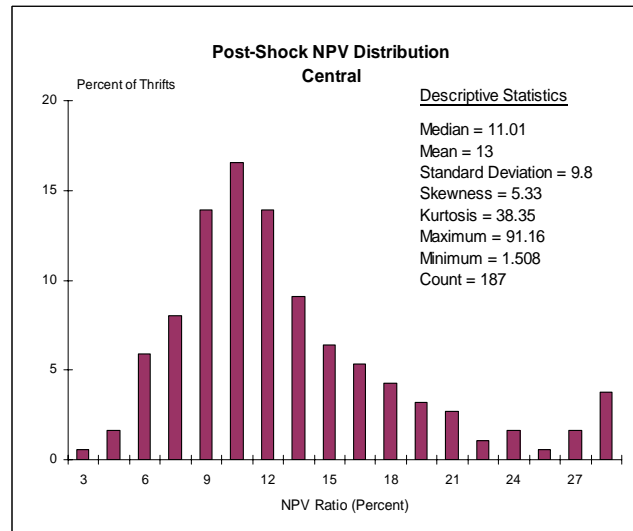
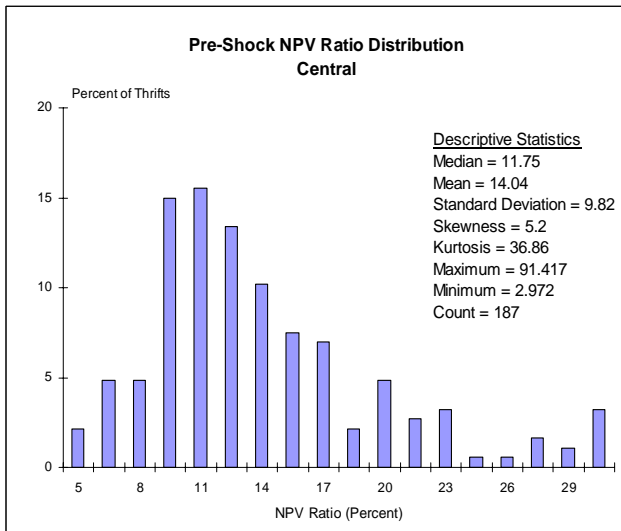
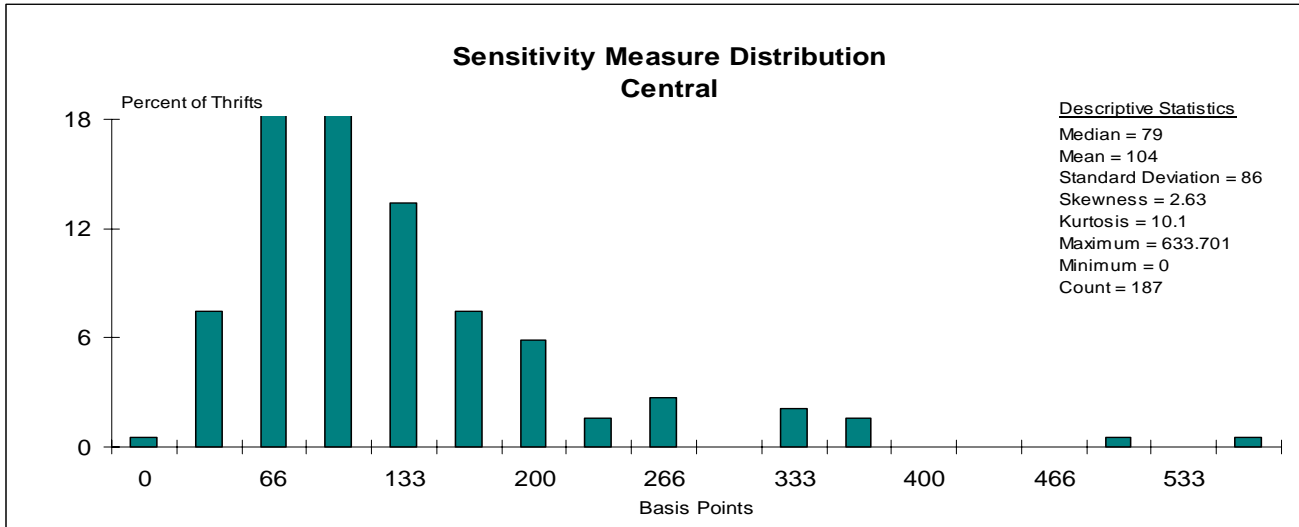


Appendix C – Southeast Region



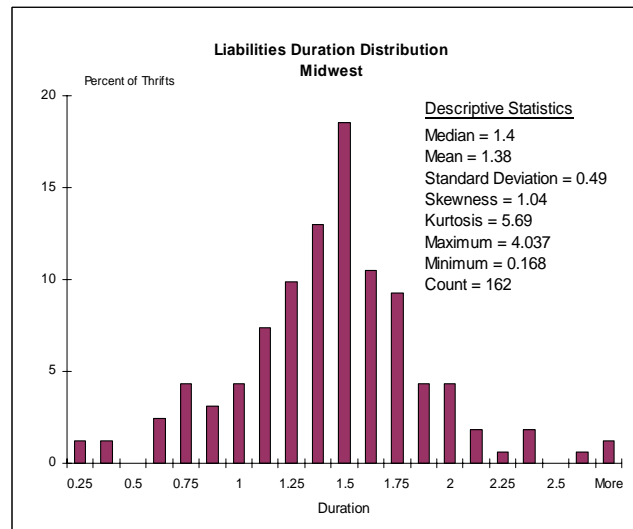
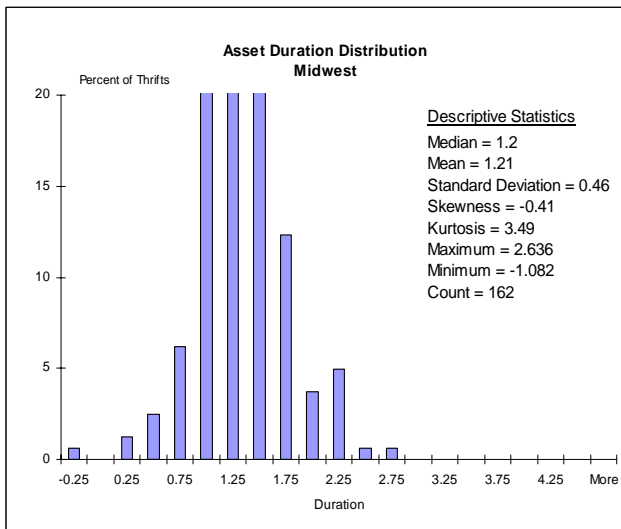
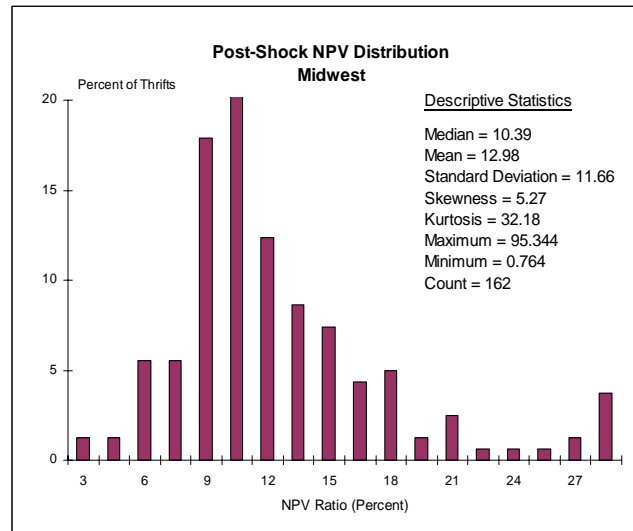
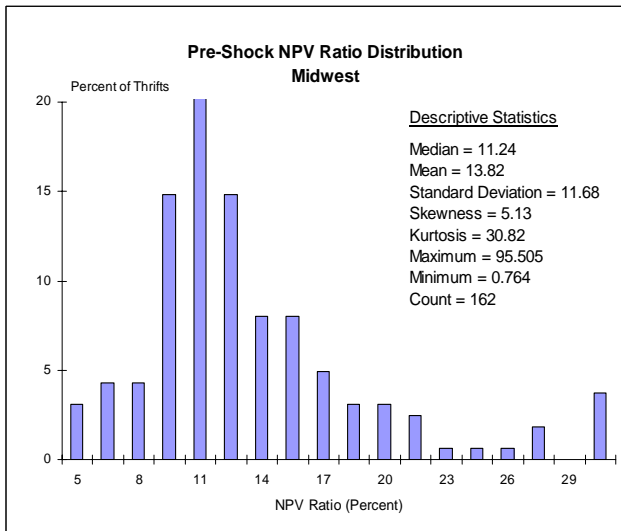
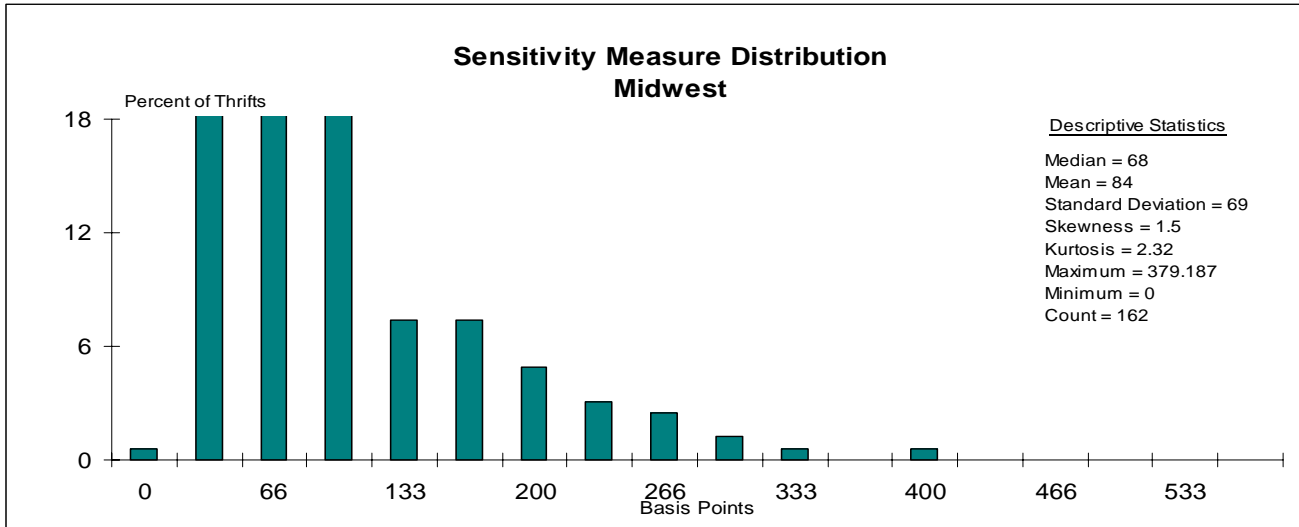


Appendix D – Central Region





Appendix E – Midwest Region





Appendix F – West Region

