



The Quarterly Review of Interest Rate Risk

Office of Thrift Supervision



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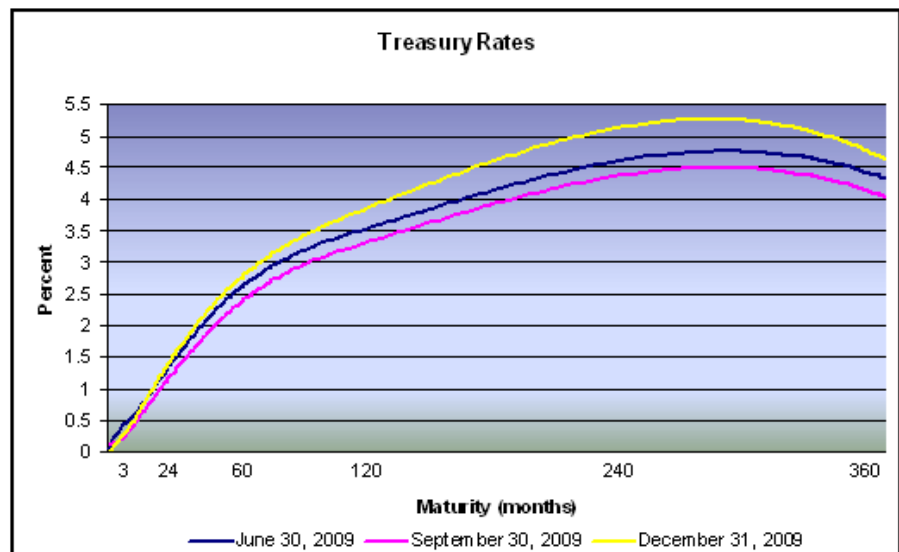
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Changes in Interest Rates and the Mortgage Market

U.S. Treasury rates increased between the third and fourth quarter of 2009. Yields on the six-month bill and two-year note increased two basis points and 19 basis points to 0.20% and 1.14%, while yields on the ten-year note and thirty-year bond increased 54 basis points and 60 basis points to 3.85% and 4.65%, respectively (Exhibit 1). These changes in interest rates produced a very steep yield curve, with the spread between the yield on the ten-year note and two-year note increasing from 236 basis points in September to 271 basis points in December. This spread is well above its three-year average of 142 basis points. Although the steep yield curve is currently advantageous to most financial institutions, a change in monetary policy and/or a decline in market liquidity could have an adverse effect on institutions that are not actively managing their interest rate risk or liquidity risk.

Exhibit 1



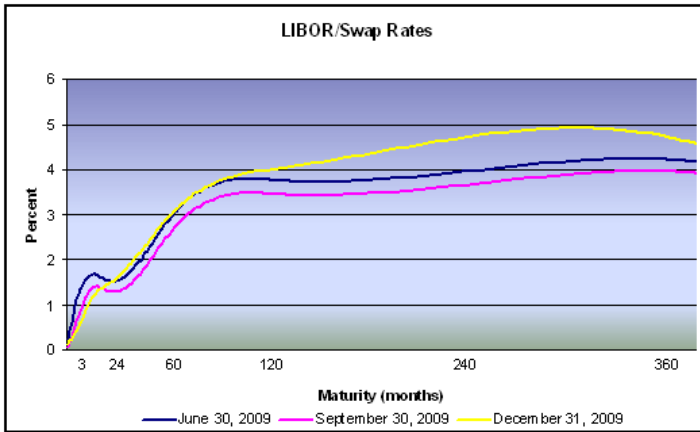
Changes in swap and LIBOR rates were mixed in the fourth quarter of 2009 (Exhibit 2). Three-month and six-month LIBOR fell 4 basis points and 20 basis points to 0.25% and 0.43%, respectively. In contrast, two-year and ten-year swap rates increased 16 basis points and 57 basis points to 1.46% and 4.01%.

Similar to previous quarters, the Federal Reserve maintained the target federal funds rate within a range of 0-0.25% throughout the fourth quarter and reiterated its intention to keep interest rates low for an extended period. Additionally, the Federal Reserve continued to conduct quantitative easing operations that included purchases of agency mortgage-backed securities (MBS), agency debt securities, and Treasury



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Exhibit 2



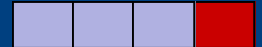
securities. During the fourth quarter, the Federal Reserve purchased \$206 billion (net) of agency MBS compared to \$283.4 billion (net) in the third quarter, raising cumulative net purchases at fourth quarter-end to \$1.11 trillion. These purchases were part of the Federal Reserve’s previously announced commitment to purchase a total of \$1.25 trillion of agency MBS and \$175 billion of agency debt securities by the end of March 2010. Agency MBS and agency debt security purchases were completed on March 31, 2010, while Treasury security purchases were completed on October 29, 2009.

Notwithstanding the termination of the Federal Reserve’s purchases of agency MBS, the FOMC indicated in its March 2010 statement that it will continue to monitor the economic outlook and financial developments and will use its policy tools to ensure economic recovery and future price stability. Although this suggests that it is possible for the Federal Reserve to play a part again in the mortgage market in the future, there is currently little indication that the mortgage market has been adversely affected by the Federal Reserve’s exit. As evidence, the spread between the FNMA, 30-year, fixed rate current coupon and the yield on the ten-year Treasury has experienced little volatility during the first quarter of 2010 and has not, so far, shown any substantial widening. Given that it is increasingly likely that interest rates will go up in the future, any increase in mortgage rates should be evaluated relative to broader interest rate increases in assessing the health of the mortgage market.

Despite consistently strong demand for agency MBS by the Federal Reserve, mortgage rates increased slightly in the fourth quarter. The FNMA 60-day commitment rate on a 30-year fixed-rate mortgage

Exhibit 3

30-YEAR CONVENTIONAL December-09													
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	4.98	342	99.88	11	15	4.57	8.88	73	6	67	5.12	-59	
5.00	5.56	307	102.69	12	19	4.52	7.47	91	25	66	4.23	-99	
5.50	6.02	305	104.75	14	24	4.49	6.53	108	32	76	3.41	-112	
6.00	6.54	312	106.03	16	30	4.50	5.66	130	46	84	2.76	-100	
6.50	7.03	30	107.25	19	34	4.41	4.79	142	56	85	2.17	-86	
7.00	7.60	294	109.59	18	29	4.34	4.71	135	67	69	2.26	-97	
30-YEAR CONVENTIONAL September-09													
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	4.99	344	101.28	16	15	4.26	6.79	97	26	71	3.58	122	
5.00	5.58	307	103.31	19	22	4.19	5.4	117	42	74	2.81	-80	
5.50	6.02	308	104.66	22	32	4.12	4.55	133	47	86	2.12	-140	
6.00	6.54	316	105.53	25	42	3.99	3.66	143	51	92	1.52	-75	
6.50	7.03	307	106.84	28	48	3.52	2.94	109	28	81	0.89	-53	
7.00	7.60	298	109.03	27	41	3.30	2.94	70	23	48	1.05	-55	



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increased from 4.69% in September to 4.97% in December. Accordingly, prices of lower coupon mortgages decreased in the fourth quarter (Exhibit 3). For example, the price of a TBA FNMA 5% coupon security decreased from \$103.31 in September to \$102.69 in December of 2009.

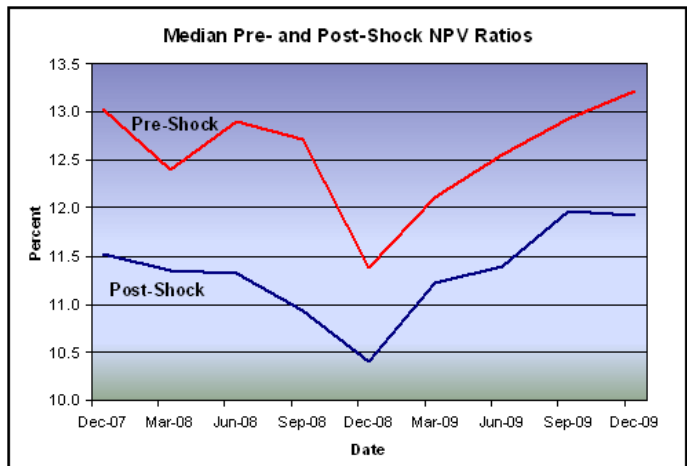
Changes to the OTS NPV Model's Prepayment Assumptions

The OTS NPV Model relies heavily on the refinance incentive provided by prevailing interest rates to produce estimates of future prepayment speeds for single-family, fixed-rate mortgages. In recent quarters, however, the inability for many borrowers to refinance their mortgages due to adverse economic conditions has resulted in actual prepayment rates that are much slower than what would otherwise be expected in an extremely low interest rate environment. As a result, the NPV Model has been susceptible to overestimating prepayment rates for single family, fixed rate mortgage-related assets and underestimating the interest rate sensitivity of an institution's balance sheet. Therefore, the NPV Model was changed in the fourth quarter to include updated prepayment assumptions in order to better reflect slower observed prepayment behavior. In general, institutions can expect to see lengthened effective durations for single-family mortgages and securities and increased sensitivity measures due to the change. The new prepayment assumptions can be found in the Fourth Quarter 2009 [Asset and Liability Price Tables](#) located on the OTS website.

Fourth Quarter OTS NPV Model Results

The thrift industry's median pre-shock NPV ratio improved in the fourth quarter, rising from 12.93% in September to 13.22% in December. In contrast, the industry's median post-shock NPV ratio fell slightly, dropping from 11.97% in September to 11.92% in December (Exhibit 4). The industry's median sensitivity measure increased in the fourth quarter, rising from 92 basis points in September to 111 basis points

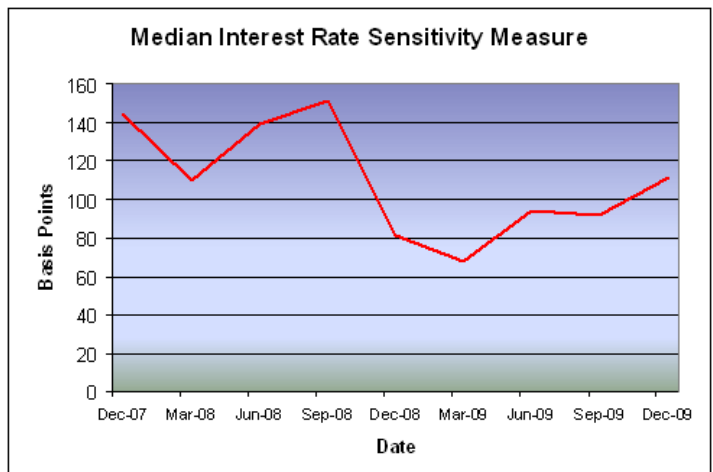
Exhibit 4



in December (Exhibit 5). Had the NPV model been using the previous quarter's prepayment assumptions, however, the sensitivity measure would have been 99 basis points. This is to be expected since a reduction in projected prepayment speeds will lengthen durations and increase sensitivity to rising rates.

Contributing to higher sensitivity measures and lower post-shock NPV ratios were higher effective durations for single-family, fixed-rate assets. The industry's median effective duration for 30-year, fixed-rate, single-family mortgage loans increased from 1.43 in the third quarter to 3.33 in the fourth quarter. This compares to an effective duration of 2.18 had the NPV model been using the previous quarter's prepayment assumptions. Likewise, the industry's me-

Exhibit 5



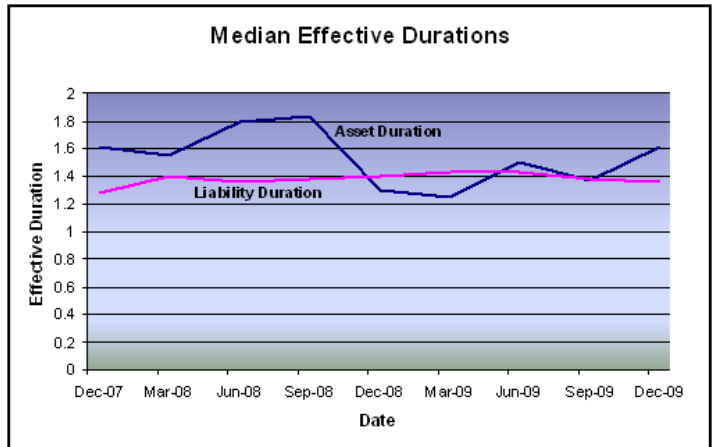


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dian effective duration for 30-year, fixed-rate, single-family mortgage securities increased from 0.78 in the third quarter to 1.15 in the fourth quarter. This compares to an effective duration of 0.93 had the NPV model been using prior quarter assumptions.

The industry’s median effective duration of total assets increased from 1.37 in September to 1.61 in December. At the same time, the industry’s median effective duration for total liabilities decreased from 1.38 in September to 1.36 in December. As shown in Exhibit 6, this widened the effective duration gap compared to September.

Exhibit 6



The Thrift Industry’s Interest Rate Risk Profile

The thrift industry’s interest rate risk profile worsened in the fourth quarter. From a supervisory perspective, the number of institutions with “High” or “Significant” risk as defined by Thrift Bulletin 13a increased from five institutions in September to 24 in December. Additionally, the number of institutions with a sensitivity measure over 200 basis points increased from 125 in September to 227 in December (Exhibit 7). Had the NPV model been using the previous quarter’s prepayment assumptions the number of institutions with a “High” or “Significant” risk rating would have been nine.

Exhibit 7

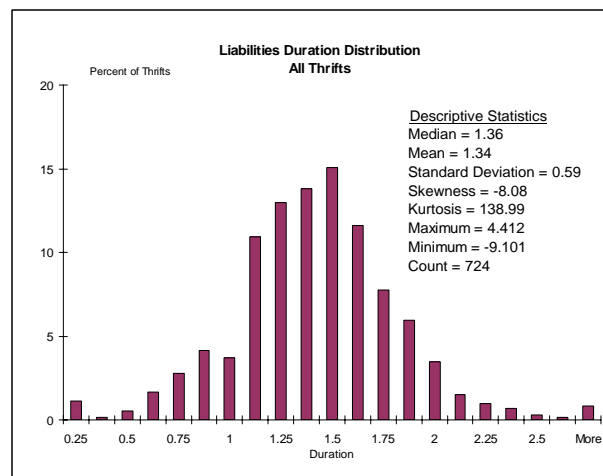
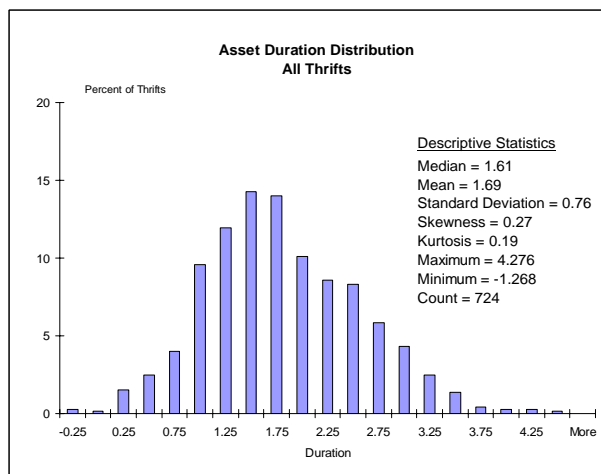
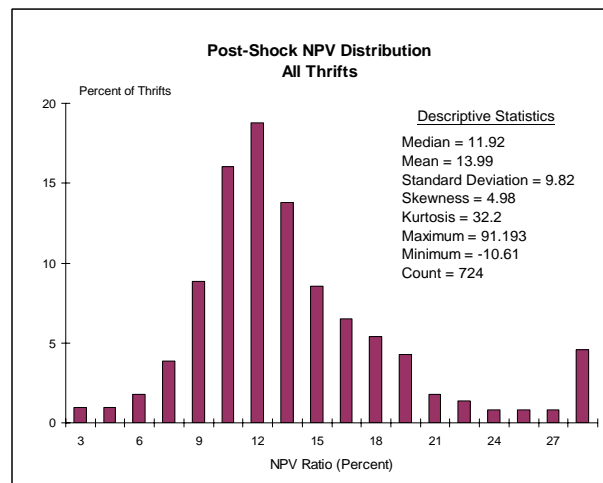
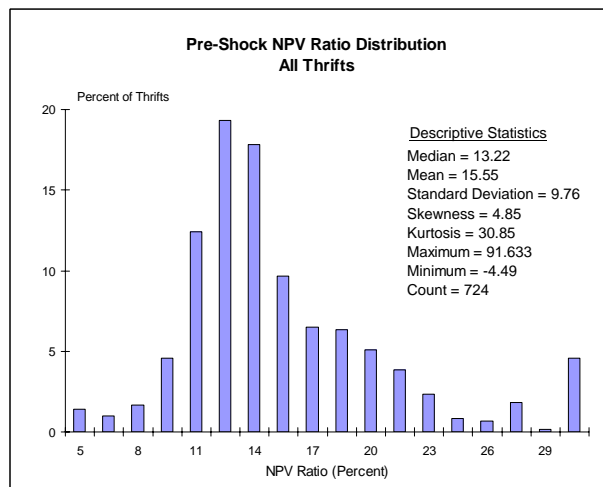
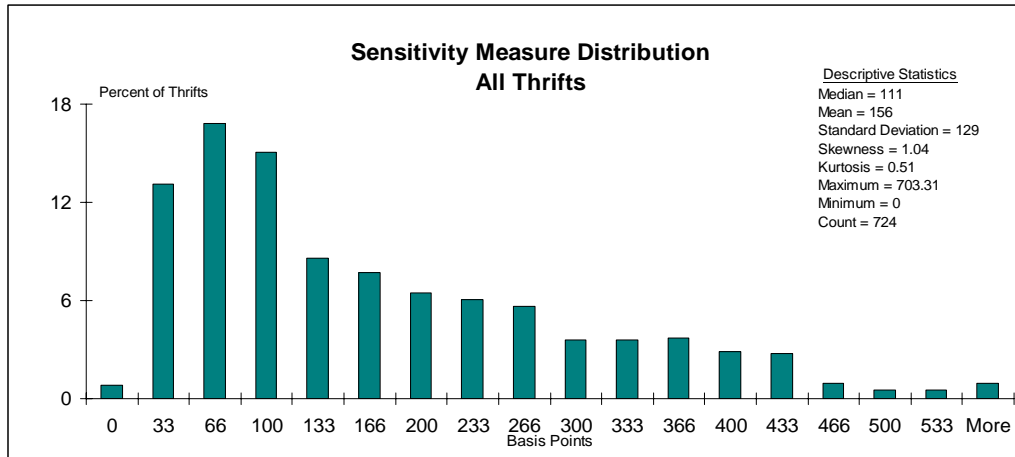
	Under 100bp	101-200bp	201-400bp	Over 400bp	Total
Over 10%	270	122	114	28	534
6% to 10%	50	38	64	11	163
4% to 6%	6	2	6	1	15
Below 4%	6	3	1	2	12
Total	332	165	185	42	724

	Under 100bp	101-200bp	201-400bp	Over 400bp	Total
Over 10%	299	145	93	7	544
6% to 10%	84	53	21	1	159
4% to 6%	13	5	2	0	20
Below 4%	4	1	0	1	6
Total	400	204	116	9	729

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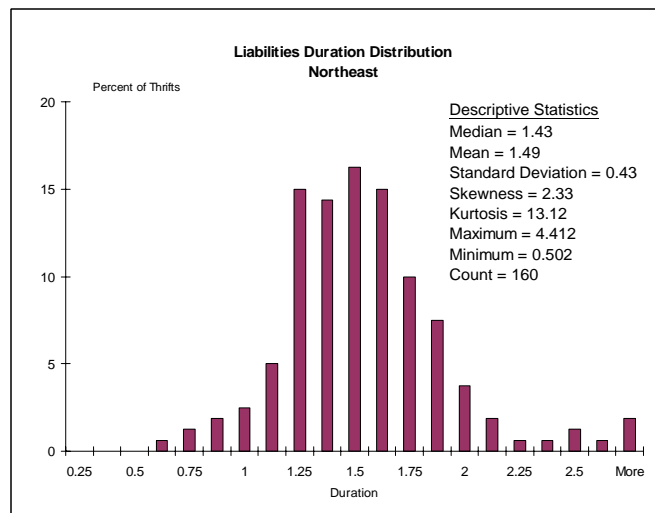
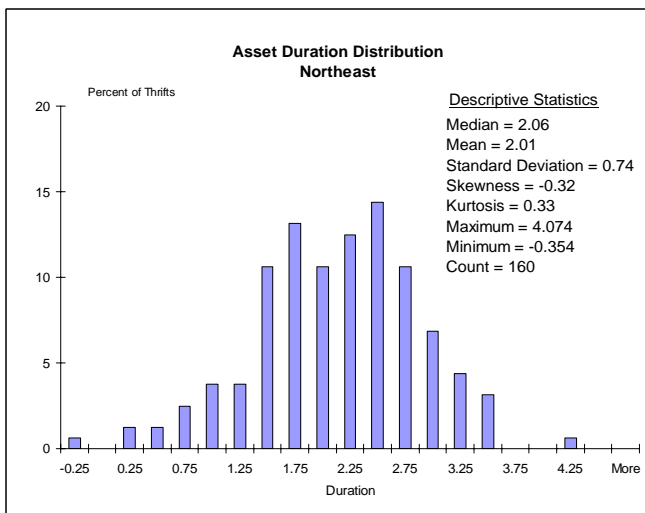
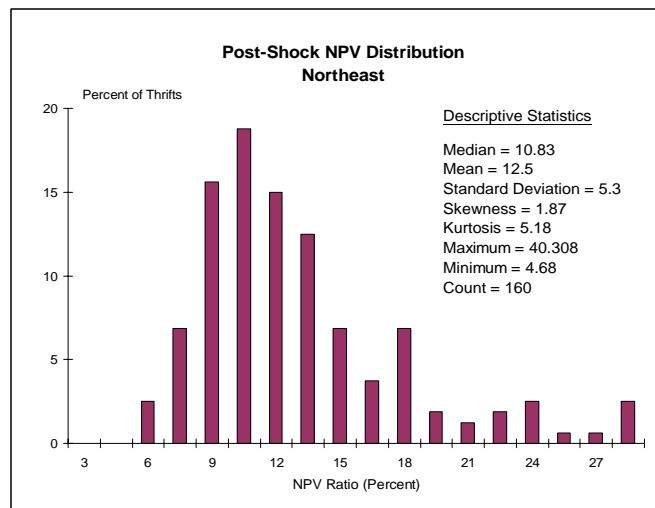
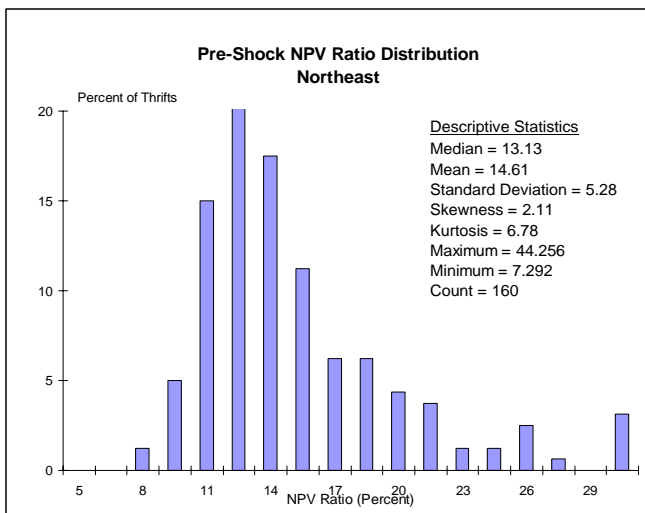
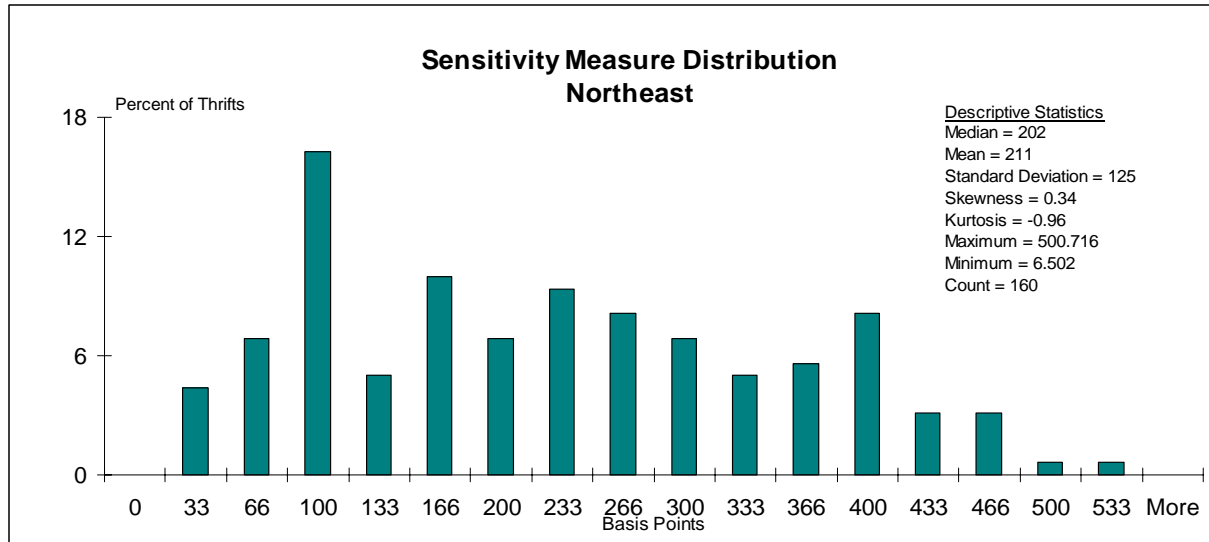


Appendix A – All Thrifts



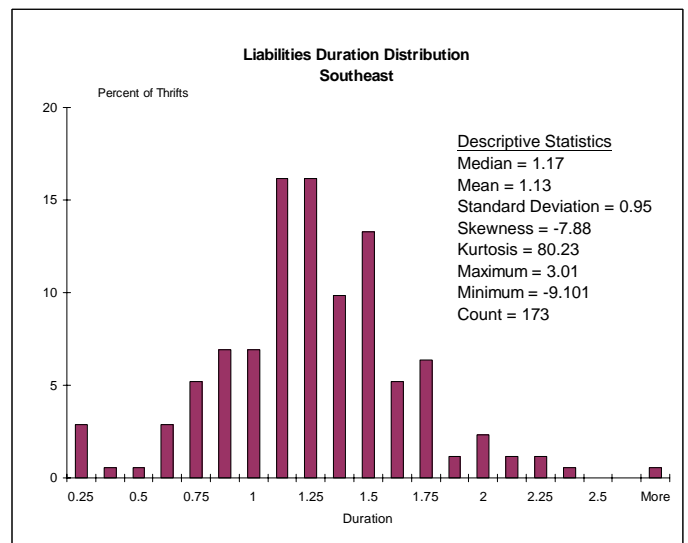
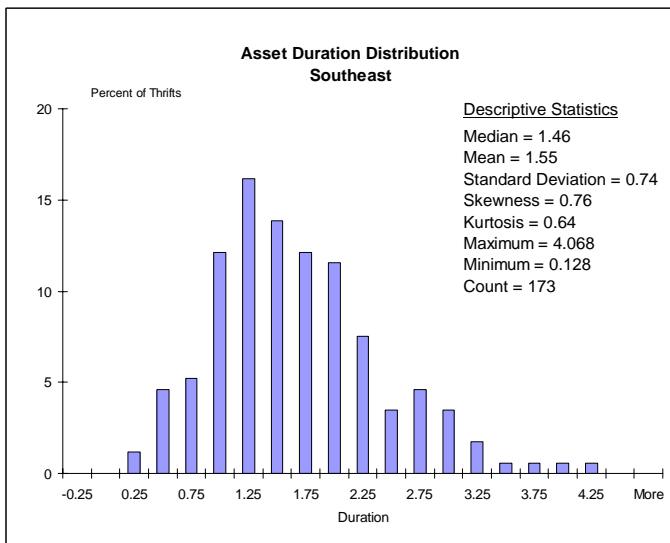
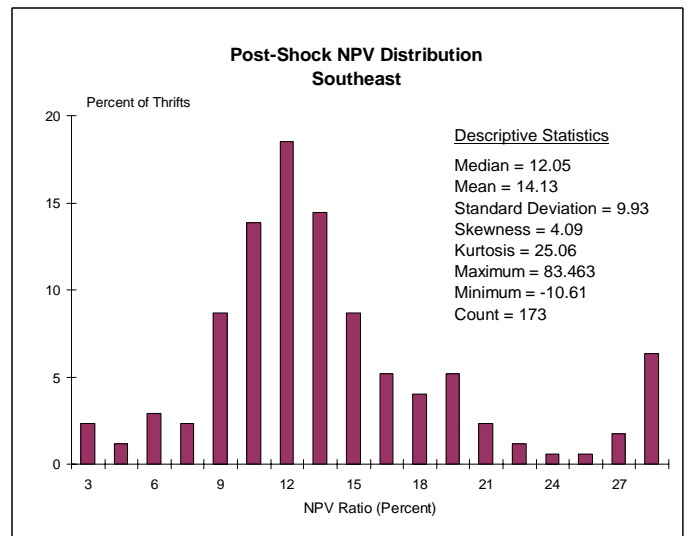
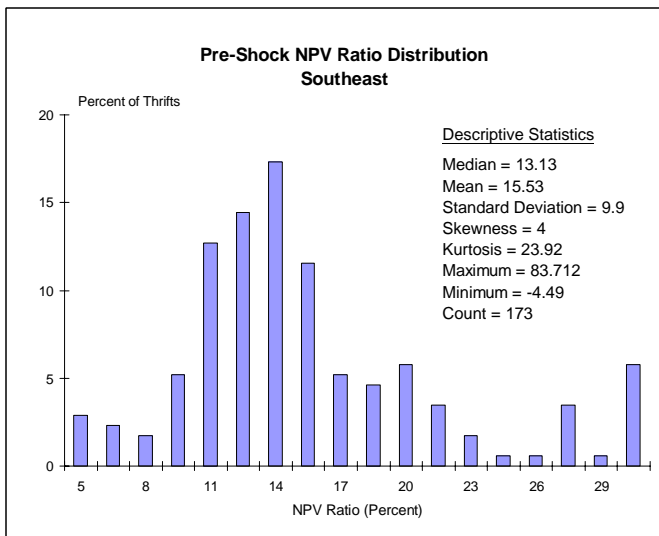
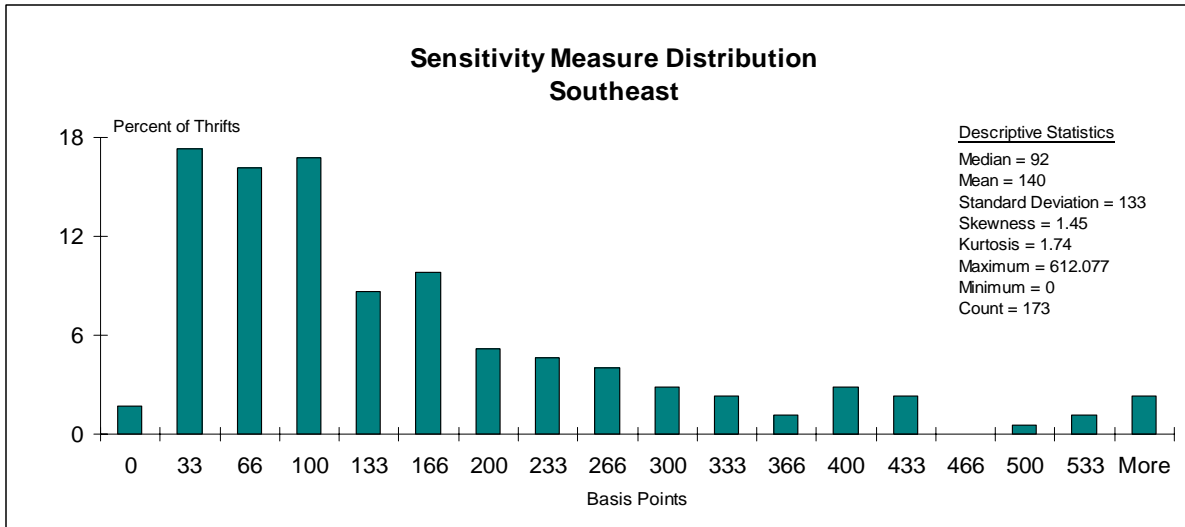


Appendix B – Northeast Region



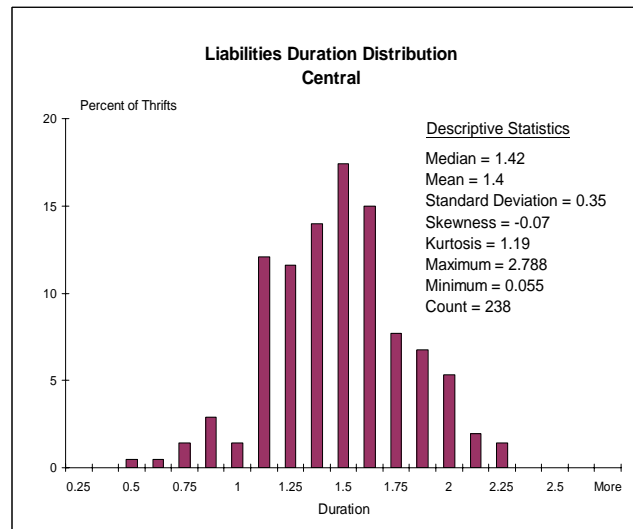
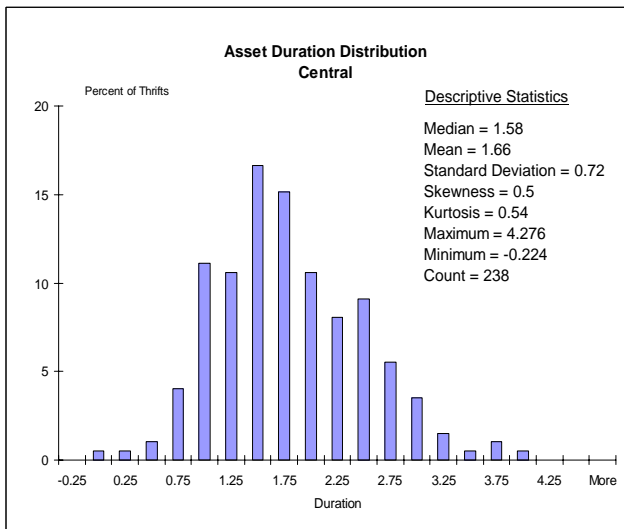
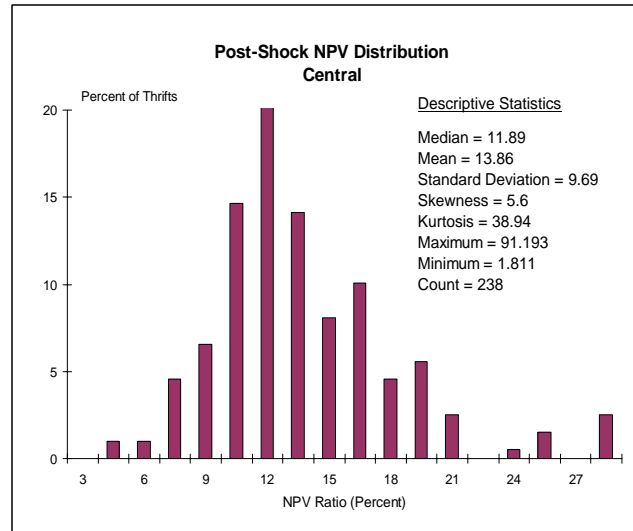
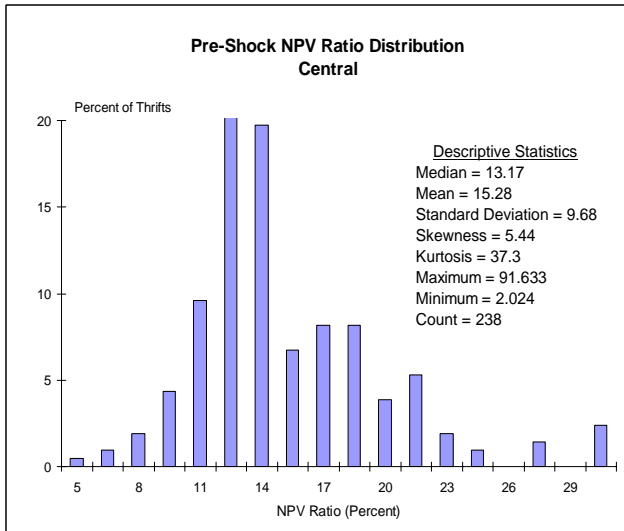
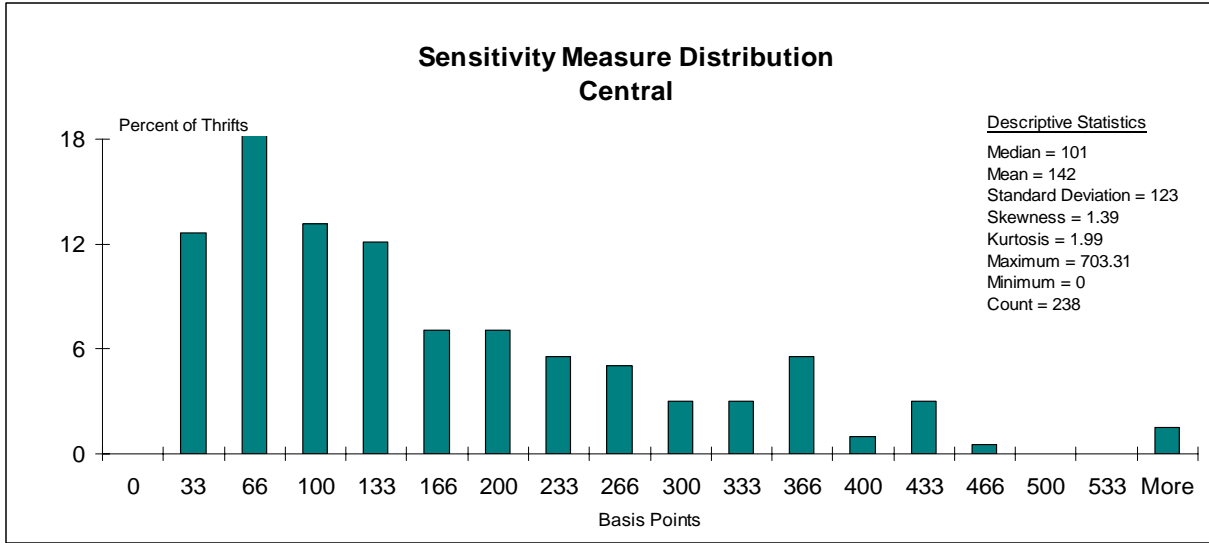


Appendix C – Southeast Region





Appendix D – Central Region





Appendix F – Western Region

