

# The Quarterly Review of Interest Rate Risk

Office of Examinations, Supervision, and Consumer Protection  
Risk Modeling and Analysis Division



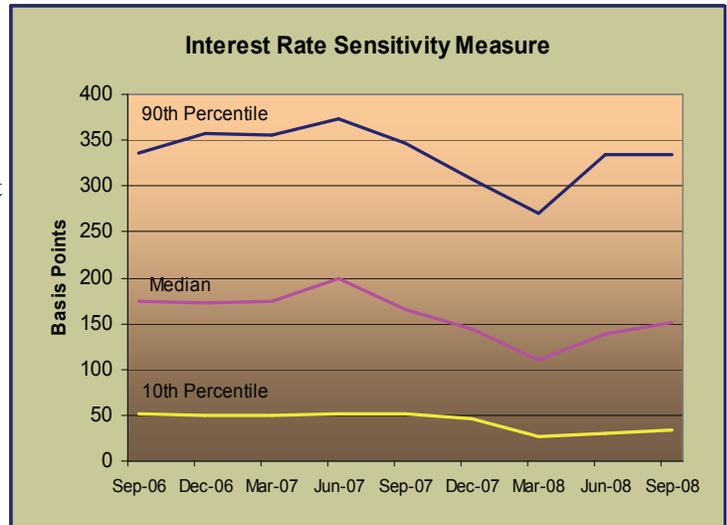
### Special points of interest:

- 30-yr mortgage commitment rate decreased by 38 basis points
- Treasury yield curve decreases with the upward sloping curve steepening slightly
- Third quarter median interest rate sensitivity increases slightly
- Asset and liability durations lengthen slightly

## Third Quarter Sees Interest Rates Decline

Between June 30, 2008 and September 30, 2008, interest rates declined and the upward sloping yield curve steepened slightly. Rates on the shorter end of the curve declined by more than rates at the longer end of the curve. The three and six-month rates fell by 98 and 57 bps to 0.92% and 1.60% respectively. The 12 month and five-year Treasury rates declined by 58 and 36 bps to 1.78% and 2.98%. The ten-year and 30-year rates fell by 14 and 22 bps to 3.85% and 4.31%.

During the quarter, the 30-year mortgage rate on conforming fixed rate loans



decreased 38 basis points from 6.22 percent to 5.84 percent. While the target for the federal

funds rate remained at 2.00 percent during the third quarter. (Continued on page 5)

## A Primer on Government Assistance Programs

In recent months, interest rates have fallen to historic lows, volatility has reached new highs, and the 30-year mortgage rate has hovered around 5 percent. Yet, despite these unprecedented events, interest rate risk has moved to the back burner. Credit risk and liquidity management are the issues *du jour*.

Over the past 12 months, a significant number of government programs have been created to attempt to deal with various sources or symptoms of the current credit crisis. Programs that go by acronyms

such as TARP, CPP, TAF, and CPFF have been established to improve the flow of credit in a number of different areas, including mortgages, consumer loans, commercial paper, inter-bank lending, and money markets.

The programs are almost universally touted as temporary, however, it is likely that these various capital and credit facilities will play a substantial role in the marketplace for the next several years. This article is intended to familiarize the reader with the basic features of each program and to show

the extent to which the programs have been utilized to date.

### Department of Treasury Programs

#### Troubled Assets Relief Program

On October 3, 2008, Congress passed the \$700 billion Emergency Economic Stabilization Act (EESA) of 2008 in an effort to restore liquidity and stability to the financial system. The centerpiece of the

(Continued on page 2)

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## A Primer on Government Bailout Programs (Continued)

act is the Troubled Assets Relief Program (TARP), which gives broad authority to the Secretary of the Treasury to purchase troubled assets from U.S. financial institutions. The EESA also temporarily increased the FDIC insurance coverage from \$100,000 to \$250,000 until December 31, 2009.

The TARP's original design was a facility that would purchase troubled mortgage assets from U.S. banks and thrifts. Shortly after passage of the EESA, however, the Department of Treasury switched strategies. On October 14, 2008, the Secretary of the Treasury announced the creation of the Capital Purchase Program (CPP).

### Capital Purchase Program

The CPP enables the Treasury Department to make direct equity investments in financial institutions.

Under the program, Treasury has committed to purchase up to \$250 billion of nonvoting, senior preferred stock on standardized terms from certain qualifying U.S. financial institutions that are deemed viable. The minimum subscription amount available to a participating institution is 1 percent of risk-weighted assets. The maximum subscription amount is the lesser of \$25 billion or 3 percent of risk-weighted assets. The U.S. Treasury Department's CPP *Investment Committee* makes the ultimate determination of funding in consultation with the bank's primary federal regulator.

The senior preferred shares qualify as Tier 1 capital, rank senior to common stock, pay a cumulative dividend rate of 5 percent per annum for the first

five years, and reset to a rate of 9 percent per annum after year five. Furthermore, all preferred shares are callable at par after three years and can be transferred to a third party at any time.

In conjunction with the preferred stock, in most cases Treasury receives warrants to purchase common stock with an aggregate market price equal to 15 percent of the senior preferred investment. The exercise price on the warrants is based on the market price of the participating institution's common stock at the time of issuance, calculated on a 20-trading-day trailing average.

All companies participating in the CPP must agree to the Treasury Department's standards for executive compensation and certain corporate governance items for the period during which Treasury holds equity issued under this program. Executive compensation standards generally apply to the chief executive officer, chief financial officer, and the next three most highly compensated executive officers. The CPP investments' standardized terms disallow deduction of compensation in excess of \$500,000 for tax purposes, place limits on golden parachute payments to senior executives, and allow clawbacks of bonuses that were based on mistaken financial statements.

### Systemically Significant Failing Institutions

In addition to the CPP, the Treasury has also utilized TARP funds to initiate the Systemically Significant Failing Institutions (SSFI) program, a program that to date is limited to a single \$40 billion preferred stock with warrants investment

in American International Group (AIG). While the SSFI program contains similar structures to the CPP investments, the preferred stock for AIG accrues dividends at a fixed 10 percent annual rate, payable in quarterly installments through the life of the investment. The terms of this investment do not require payment of dividends, but unpaid dividends will compound quarterly at the 10% rate.

### Miscellaneous TARP Programs

In the last few days of 2008, two additional programs were funded under the authority of the TARP: the Automotive Industry Financing Program (AIFP) and the Targeted Investment Program (TIP). The AIFP allows the Treasury to consider a number of subjective factors when determining eligibility for participation in the program, while the TIP is available only to "Financial Institutions" as defined in the EESA.

The AIFP's debt and equity facilities, as of December 31, 2008, included \$5 billion of preferred stock with exercised warrants in GMAC LLC, and debt with warrants totaling another \$10.4 billion to General Motors Corporation. The TIP so far has been used only once—an investment of \$20 billion preferred stock with warrants in Citigroup, which was announced alongside actions from the FDIC and the Federal Reserve on November 23, 2008. The investment was funded on December 31, 2008, and was intended to convey public support for Citigroup.

The TIP's investment in Citigroup provides an 8 percent dividend to the Treasury, somewhat higher than the 5 percent from the CPP capital. The as-

sociated actions taken by the FDIC in this particular transaction involved a loss-sharing agreement on a \$306 billion asset pool. Losses in excess of \$29 billion will be shared on a 90/10 basis between the FDIC and Citigroup, respectively. As part of this program, Citigroup also agreed to modify loans in the asset pool in a manner consistent with the FDIC's mortgage modification standards.

### TARP Summary

As of December 31, 2008, \$262.9 billion has been disbursed under the TARP, including \$187.5 billion to 216 banks and thrifts under the CPP<sup>1</sup>, \$20 billion to Citigroup under the TIP, \$15.4 billion to the auto industry under the AIFP and \$40 billion to AIG under SSFI. It should be noted, however, that as part of its initial passage of the EESA, Congress only released \$350 billion of the \$700 billion, and some reports indicate that Treasury has already committed \$358.4 billion under TARP.

In order to obtain the remaining \$350 billion, Treasury must petition Congress—and all indications suggest that Treasury faces an uphill battle. Congressional leaders have been critical of the Treasury Department's change in strategy and its lack of support for troubled borrowers. If the additional funds are ultimately released to Treasury, Congress may place additional restrictions on their use.

### Federal Deposit Insurance Corporation (FDIC) Programs

#### Temporary Liquidity Guarantee Program

The FDIC announced on

<sup>1</sup> Of the \$187.5 billion distributed to banks and thrifts, \$125 billion went to nine large banks including Citigroup, JPMorgan Chase, Wells Fargo, and Bank of America.

## A Primer on Government Bailout Programs (Continued)

October 15, 2008 that it was putting into place the Temporary Liquidity Guarantee Program (TLGP). The program was created to address disruptions in the credit and interbank lending markets. The TLGP initially guaranteed all newly issued senior unsecured debt of insured financial institutions, and extended a full guarantee on all noninterest-bearing accounts, with certain exceptions.

This program has two primary components, the Debt Guarantee Program and the Transaction Account Guarantee Program. For the TLGP, all institutions were initially covered by the program, and were required to opt-out by December 5, 2008 if they did not want to participate in one or both of the programs.

The Debt Guarantee Program allows participating institutions to issue senior unsecured debt that will be guaranteed by the FDIC. This program is intended to reduce overall funding costs for participating institutions, thus providing greater confidence and liquidity in the market. "Upon the uncured failure of a participating entity to make a timely payment of principal or interest," the FDIC will pay unpaid principal and interest owed to a debt investor under the existing terms of the debt. Specifics of the program can be found on the FDIC's website along with an explanation of the tiered pricing schedule that the FDIC has created to fund the program. The Debt Guarantee Program originally provided guarantees on debt issued prior to June 30, 2009, with the guarantee to be in place until the earlier of the maturity of the debt, or June 30, 2012. On February 10, 2009, the FDIC announced that the program

would be extended by four months, through October 31, 2009, alongside a "new framework of governance and oversight."

The Transaction Account Guarantee Program extended the FDIC's insurance to full coverage of noninterest-bearing transaction accounts for institutions that participate in the program through the end of 2009. Those institutions not opting out will be assessed every quarter at the annualized rate of 10 basis points on deposit balances in excess of the \$250,000 insurance limit currently in place.

### Federal Reserve Programs

In terms of sheer size, the most substantial responses to the credit crisis have come from the Federal Reserve System, although in many cases the Federal Reserve programs are funded by explicit Treasury deposits. The Federal Reserve's balance sheet has ballooned from \$918.7 billion to \$2.3 trillion over the 12-month period ending December 31, 2008, an increase that has been funded primarily by U.S. Treasury deposits and increases in excess reserves held at the Federal Reserve Banks. The Federal Reserve system was leveraged at 53.8 times on December 31, 2008 up more than double from 24.9 twelve months prior.

A quick glance through the Federal Reserve's H.4.1 release for January 2, 2009 provides a view of the massive changes to the composition of the U.S. central bank's balance sheet over the past 12 months. Historically, the Federal Reserve's assets have consisted almost entirely of U.S. Treasury securities. As of December 31, 2008, however, U.S. Treasury

securities comprised only 21 percent of the system's assets, compared with 80.6 percent and 88.7 percent of total assets at year-end 2007 and 2006, respectively. The various Federal Reserve programs that have been created to replace or backstop market liquidity have accounted for the majority of this asset composition change. Among the major contributors to the asset change are the Term Auction Facility, the Commercial Paper Funding Facility, increases in the Primary Credit Facility, and various loans to AIG. The Term Auction Facility and the Commercial Paper Funding Facility are detailed below, as are some of the other Federal Reserve programs.

*"As the wide variety of capital, credit, and liquidity programs provide new investment opportunities, continue to carefully consider interest rate risk implications when investing in a low-rate environment that will inevitably end."*

### Term Auction Facility

The Federal Reserve created the Term Auction Facility (TAF) in December of 2007 to promote additional liquidity in the market. While a temporary program, the TAF has no official expiration date. Under the TAF, the Federal Reserve auctions term funds, typically of 28- or 84-day terms, to depository institutions that are eligible to borrow under the primary credit program are eligible to partici-

pate in TAF auctions. All advances must be fully collateralized. Each TAF auction will be for a fixed amount, with the rate determined by the auction process (subject to a minimum bid rate). Bids will be submitted by phone through local Reserve Banks.

TAF grew significantly over the course of 2008, with most of the growth occurring in October and November of 2008. Term auction credit extended through the TAF ended 2007 at \$40 billion. By year-end 2008, outstanding term auction credit, comprised primarily by extensions under the TAF facility, totaled \$450 billion.

### Commercial Paper Funding Facility

On October 7, 2008, the Federal Reserve Bank of New York (FRB-NY) announced the creation of the Commercial Paper Funding Facility, LLC (CPFF). Through this special-purpose vehicle, the FRB-NY created a lending conduit that could issue secured and unsecured credit through the purchase of commercial paper (CP) from eligible, direct issuers. Eligibility for this program is limited to direct U.S. issuers with the highest quality commercial paper ratings (A-1/P-1/F1).

The CPFF only invests in 90-day terms, and rates are based on a spread over the three-month overnight index swap (OIS) rate. Asset-backed commercial paper is priced at 300 basis points above the index, while unsecured commercial paper is made available at 100 basis points over the index, alongside a 100 basis point fee that can be avoided if the issuer is a participant in the FDIC's

### A Primer on Government Bailout Programs (Continued)

TLGP Debt Guarantee program.

The program became operational on October 27, 2008 and purchases of commercial paper may take place through October 30, 2009, after the initial schedule for the program was extended by six months.

As of December 31, 2008, the outstanding amount related to the CPFF reported on the Federal Reserve's balance sheet was \$334.1 billion, which amounts to 20.1 percent of the \$1.66 trillion commercial paper market. Even with the CPFF providing a new, tremendously significant commercial paper investor to the market, the total market declined by \$121.9 billion over 2008.

#### Miscellaneous Federal Reserve Programs

In addition to the Federal Reserve programs mentioned above, there are several other programs that are just beginning to draw more of the Federal Reserve's funds. These programs will likely lead to

even greater changes in the Federal Reserve's balance sheet over the course of 2009. More recent programs that have been announced by the Federal Reserve include purchases of up to \$100 billion of direct obligations of the housing-related government-sponsored enterprises (FNMA, FHLMC, GNMA, and the FHLB system), as well as up to an additional \$500 billion of mortgage-backed securities. These two programs, which were announced on November 25, 2008, were not substantial parts of the Federal Reserve's balance sheet by year-end, but will become more substantial in the next several quarters that the purchases will take place. The purchases of the GSE debts are intended to ultimately lower the financing costs for these institutions, while the purchases of mortgage-backed securities are intended primarily to provide support for the mortgage and housing markets.

Another important emerging Federal Reserve program is the Term Asset-Backed Loan

Facility (TALF), which was not yet active at year-end 2008.

This facility will provide credit to institutions that put up eligible asset-backed securities as collateral. This facility, which was originally slated to provide \$200 billion in funding, is intended to support the issuance of all types of asset-backed securities, thus improving credit for small businesses and consumers. The U.S. Treasury will be providing \$20 billion of credit protection in support of TALF. In February, 2009, the Federal Reserve announced that the TALF could be expanded to provide as much as \$1 trillion in financing for eligible securities.

#### Summary

The massive government presence in the capital and credit markets has had a substantial impact on the banking landscape in recent months, and will likely continue for some time. Existing programs will likely continue to evolve, and new programs will certainly

continue to emerge. Institutions should regularly monitor these developments and understand their implications. As the wide variety of capital, credit, and liquidity programs provide new investment opportunities, continue to carefully consider interest rate risk implications when investing in a low-rate environment that will inevitably end.

- Jeff Adams

### Third Quarter Sees Interest Rates Decline (continued)

*(Continued from page 1)*

ter, it was lowered by 50 basis points at both the October 8<sup>th</sup> and October 29<sup>th</sup> meetings resulting in a 1.00 target rate at the end of October.

Given the fact that most OTS-regulated banks are liability-sensitive (meaning that they fund longer term assets with shorter term maturities), the interest rate changes that occurred during the quarter positively impacted the interest rate risk profile of the typical thrift. Lower interest rates typically increase the value of fixed rate mortgage loans and trigger a corresponding increase in pre-shock capital.

#### **Thrift Industry Highlights<sup>1</sup>**

The nation's economic crisis continued to impact institutions focused on home mortgage financing in the third quarter. In reaction to the current housing market distress, thrifts continued taking necessary steps to bolster cushions for potential loan losses by significantly adding to loan loss provisions.

During the third quarter, thrifts set aside a record \$7.9 billion in loan loss provisions, substantially increasing their reserve for potential loan losses. The provisions increased the industry's loan loss reserve ratio to 1.93 percent from 1.89 percent in the prior quarter. These large provisions resulted in a quarterly net loss of \$4.0 billion, or negative 1.35 percent relative to average assets.

Troubled assets (noncurrent loans and repossessed assets) rose to 2.40 percent of assets, up from 2.27 percent in the prior quarter and 1.00 percent a year ago. Mortgages on 1-4 family properties comprise approximately 69 percent of the industry's current troubled assets, with an additional 19 percent consisting of commercial real estate loans (nonresidential mortgages, multifamily complexes, and construction loans), and 12 percent in nonmortgage loans.

The industry's capital position remains solid, but down from record levels. Thrifts' capital rose to record or near record levels in advance of the housing market downturn, and generally peaked in mid-2007. But recent net losses have reduced current capital ratios to pre-mid-2007 levels. Nevertheless, current regulatory capital measures remain solid. Equity capital at the end of the third quarter was 9.24 percent of assets, down from 10.74 percent one year ago, but up from 8.97 percent in the prior quarter. At the end of the third quarter, over 98 percent of the industry exceeded well-capitalized standards and six thrifts were less than adequately capitalized.

Net losses in the third quarter were \$4.0 billion compared to a loss of \$1.7 billion in the prior quarter and net income of \$598 million in the third quarter one year ago. Profitability, as measured by return on aver-

age assets (ROA), was a negative 1.35 percent in the third quarter compared to negative 0.57 in the second quarter. One year ago the industry ROA was 0.20 percent. Return on average equity (ROE) was a negative 14.88 percent in the third quarter, down from a negative 6.16 percent in the second quarter, and from 1.85 percent in the third quarter a year ago.

In the third quarter, net interest margin increased to 293 basis points (or 2.93 percent of average assets) from 289 basis points in the second quarter and from 258 basis points in the comparable quarter a year ago. Loan loss provisions were 2.67 percent of average assets in the third quarter, unchanged from the second quarter, and up from 0.84 percent in the third quarter one year ago. The recent increases in loss provisions reflect the increase in noncurrent loans stemming from the housing market downturn and the deterioration of loans originated in the past several years. Loan loss provisions averaged 0.26 percent of average assets between 2001 and 2003 and generally trended lower from the beginning of 2003 through the first half of 2006, reflecting historically low levels of problem assets.

Total fee income, including mortgage loan servicing fee income and other fee income, was 1.18 percent of average assets in the third quarter, down from 1.39 percent in the prior quarter, but up from 1.10

percent in the third quarter one year ago. Other noninterest income was a negative 0.18 percent of average assets in the third quarter, down from 0.26 percent in the second quarter and from 0.04 percent in the third quarter a year ago.

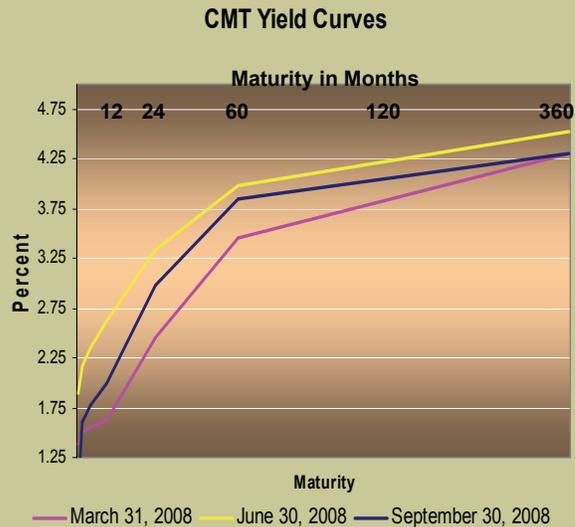
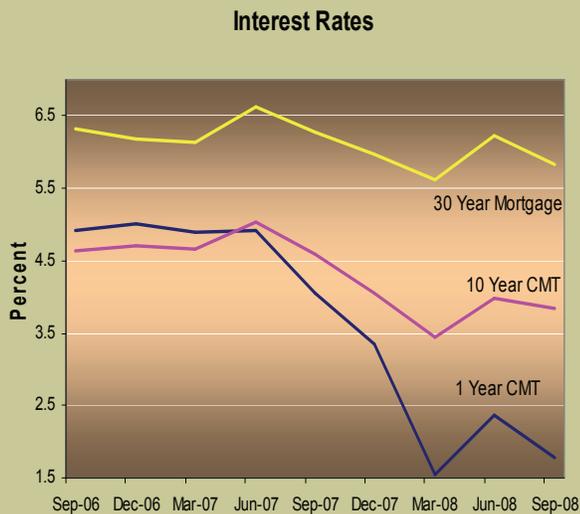
Noninterest expense increased to 2.93 percent of average assets in the third quarter from 2.69 percent in the prior quarter, and from 2.60 percent in the third quarter one year ago. General and administrative expense, the largest component of noninterest expense, was 2.55 percent of average assets in the third quarter, up from 2.27 percent in the comparable year ago quarter. Taxes were down 40 basis points over the year to a negative 0.32 percent of average assets in the third quarter, and were down from a negative 0.29 percent in the prior quarter.

Industry assets decreased by two percent over the year to \$1.18 trillion from \$1.21 trillion. Thrifts remain focused on residential mortgage lending, with 45.8 percent of assets invested in 1-4 family mortgage loans at the end of the third quarter, down from 48.6 percent one year ago. Of these 1-4 family mortgage loans, 5.3 percent are home equity lines of credit, up from 5.0 percent one year ago. Holdings of consumer loans increased to 6.4 percent of assets from 6.0 percent a year ago, and multifamily mortgages increased over the year from 2.8 percent of assets to 2.9 percent

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<sup>1</sup>To improve comparisons of current data with prior periods, the data for prior periods exclude two large thrifts that failed in the third quarter 2008.

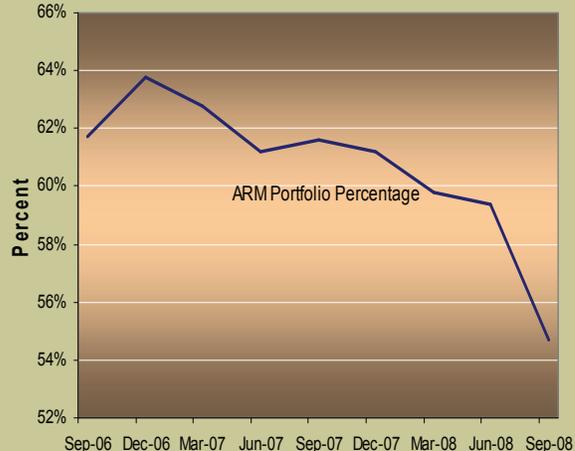
### Interest Rates and ARM Market Share



#### ARM Market Share of Originations



#### ARM Share of Thrift Mortgage Portfolios



### Third Quarter Sees Interest Rates Decline (continued)

(Continued from page 5)  
at the end of the third quarter. Commercial loans increased to 4.8 percent of assets at the end of the third quarter from 4.4 percent one year ago.

Total thrift industry mortgage originations (which include multifamily and non-residential mortgages) were \$79.5 billion in the third quarter, down 45 percent from \$145.3 billion in the third

quarter a year ago and down 26 percent from \$107.8 billion in the prior quarter. An estimated 18 percent of thrift originations were ARMs in the third quarter, up from 11 percent in the prior quarter and from 13 percent in the comparable year ago quarter. The ARM share for all lenders was estimated at nine percent in the third quarter, eight percent in the prior quarter,

and 12 percent in the third quarter one year ago.

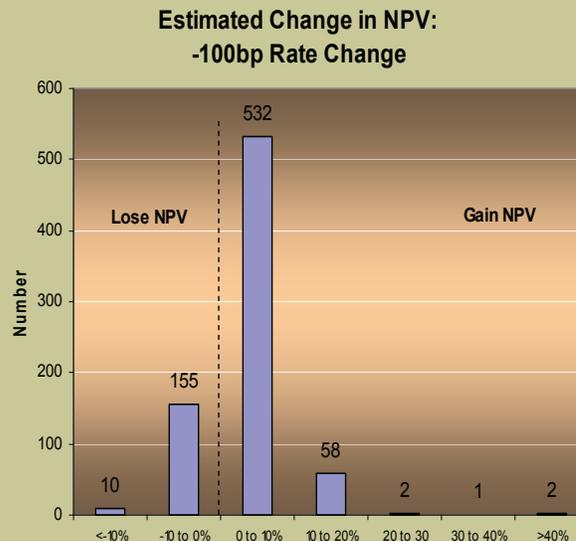
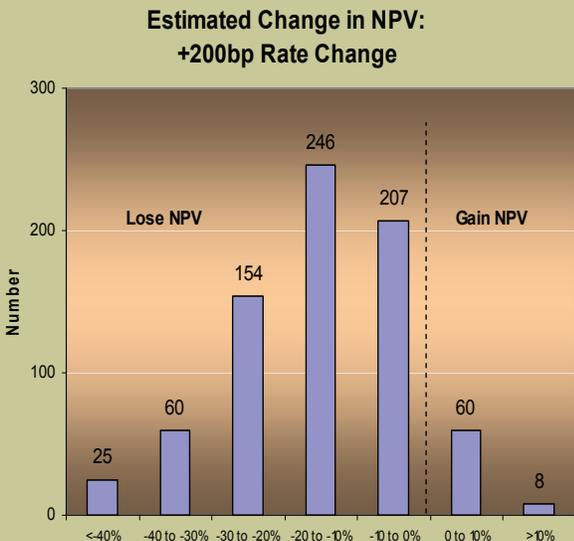
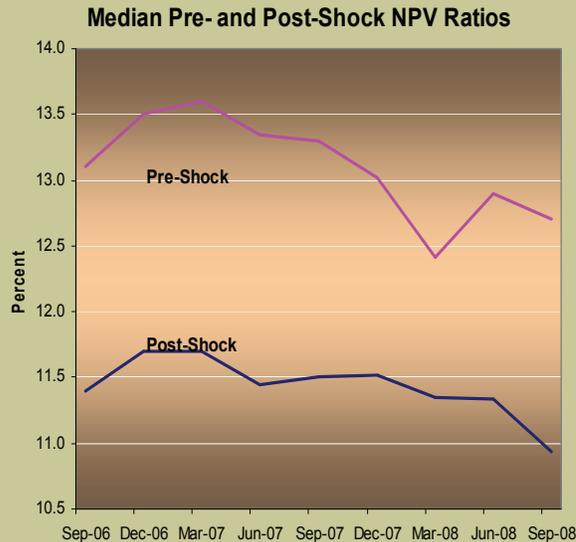
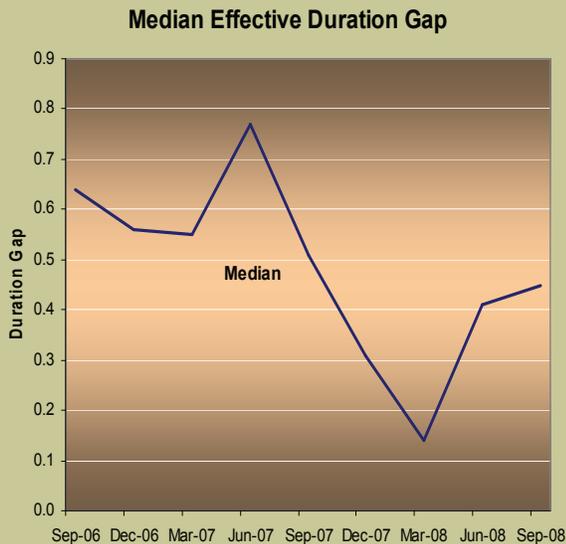
The volume of mortgage refinancing, as a percentage of total originations, remained strong in the third quarter as borrowers converted adjustable rate mortgages to fixed rate mortgages. Refinancing activity accounted for 34 percent of thrift originations in the third quarter, down from 41 percent in the prior quarter,

and from 44 percent in the third quarter a year ago.

Deposits and escrows fell by two percent over the year to \$727 billion from \$741 billion. As a percentage of total assets, deposits and escrows increased to 61.5 percent from 61.3 percent one year ago. Federal Home Loan Bank advances were up from 18.8 percent one year ago to

(Continued on page 7)

### Duration and NPV Sensitivity Measures



### Third Quarter Sees Interest Rates Decline (continued)

(Continued from page 6)  
20.5 percent of total assets.

**Interest Rate Risk Highlights**

Based on the OTS NPV model results for the 760 institutions that submitted schedule CMR, third quarter median interest rate sensitivity increased to 151 basis points from 139 basis points

in the prior quarter. The median pre-shock Net Portfolio Value (NPV) ratio declined in the third quarter by approximately 19 basis points while the median post-shock ratio declined by 39 basis points. The number of thrifts with post-shock NPV ratios below 4.0 percent increased from seven to 14 institutions.

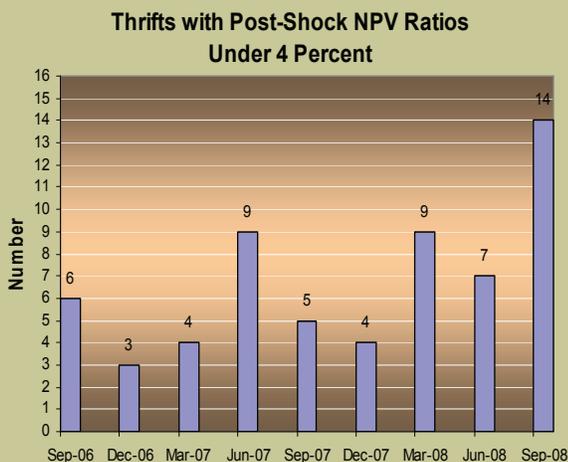
The industry’s median effective duration of assets increased from 1.80 to 1.83 in the third quarter. The third quarter saw the industry’s median effective duration of liabilities increased from 1.35 to 1.38. The duration gap for the thrift industry in the third quarter remained at 0.45.

Of the thrifts that submit-

ted Schedule CMR data in the third quarter, the NPV model estimated that about 91 percent would experience a loss of net portfolio value if rates rose by 200 basis points and approximately 78 percent of thrifts would experience an increase in value should rates fall 100 basis points. The

(Continued on page 8)

### Interest Rate Risk Measures



	NPV as % of PV of Assets		% Change in NPV	
	Sep-08	Jun-08	Sep-08	Jun-08
<b>+300</b>	9.11%	8.39%	-22%	-20%
<b>+200</b>	9.96%	9.17%	-14%	-12%
<b>+100</b>	10.67%	9.77%	-6%	-5%
<b>Base</b>	11.26%	10.15%	0%	0%
<b>-100</b>	11.18%	10.35%	0%	3%

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

	Under 100bp	101-200bp	201-400bp	Over 400bp	Total
<b>Over 10%</b>	211	142	122	24	499
<b>6% to 10%</b>	65	79	82	6	232
<b>4% to 6%</b>	5	5	19	1	30
<b>Below 4%</b>	1	0	3	3	7
<b>Total</b>	282	226	226	34	768

Minimal Moderate Significant High

Minimal Moderate Significant High

### Third Quarter Sees Interest Rates Decline (continued)

(Continued from page 7) NPV model estimated that the thrift industry would lose 14 percent of its net portfolio value if rates rose by 200 basis points at the end of the third quarter, and the industry's NPV would remain steady if rates fell by 100 basis points.

The industry aggregate

report showed an increase in pre-shock NPV from 10.15% in June to 11.26% in September primarily driven by the exclusion of a large failed bank in the September results. Along with this 111 basis point improvement in the pre-shock ratio was a 79 basis point improvement in the post-shock aggregate ratio

from 9.17% last quarter to 9.96% this quarter.

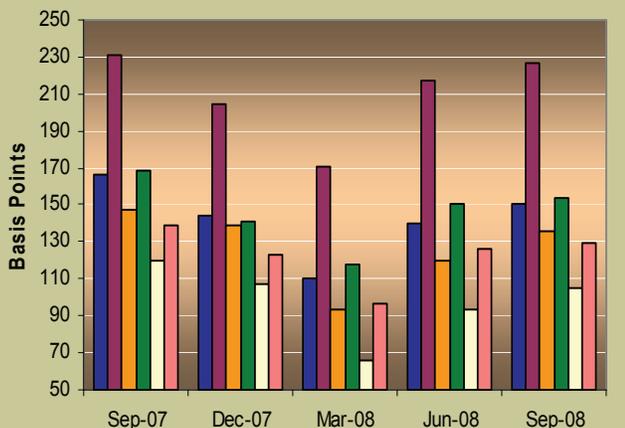
Based on TB 13a guidance for the "S" rating for those institutions that submitted scheduled CMR, 595 thrifts (78.3 percent) initially would be assigned a minimal interest rate risk rating, 125 thrifts (16.5 percent) a moderate rating, 30 thrifts (3.9 per-

cent) a significant rating, and 10 thrifts (1.3 percent) a high rating. The number of thrifts classified with significant or high interest rates increased from 32 in the second quarter to 40 in the third quarter.

- Tom Wilderman

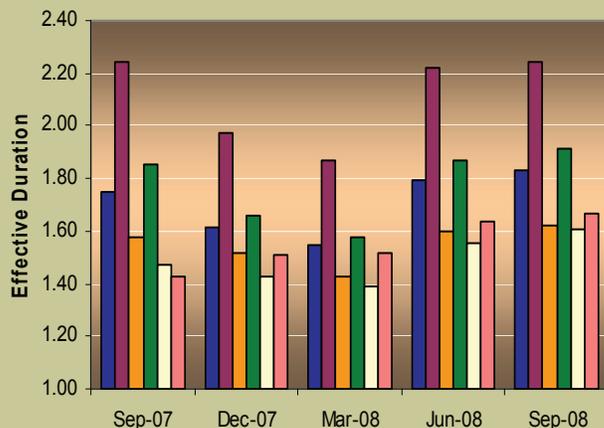
### Comparative Trends in the Five OTS Regions

Median Sensitivity by OTS Region



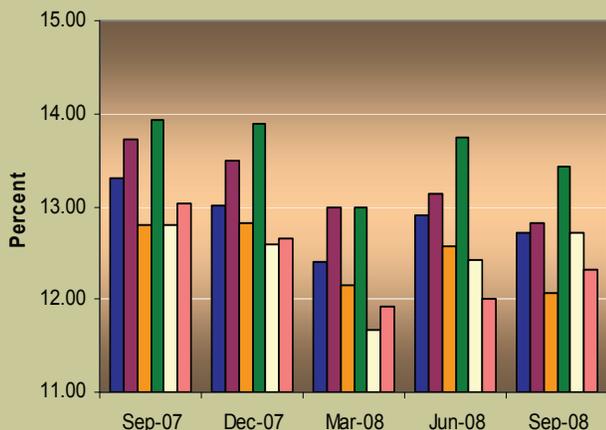
■ All Thrifts ■ Northeast ■ Southeast ■ Central ■ Midwest ■ West

Median Assets Duration by OTS Region



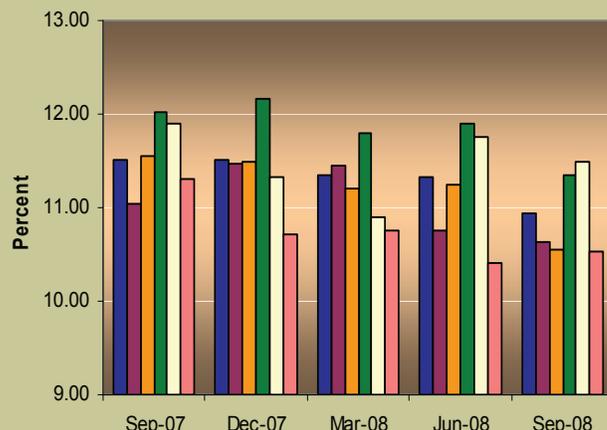
■ All Thrifts ■ Northeast ■ Southeast ■ Central ■ Midwest ■ West

Median Pre-Shock NPV Ratio by OTS Region



■ All Thrifts ■ Northeast ■ Southeast ■ Central ■ Midwest ■ West

Median Post-Shock NPV Ratio by OTS Region



■ All Thrifts ■ Northeast ■ Southeast ■ Central ■ Midwest ■ West

### Regional Comparisons

At the end of the third quarter, the Northeast Region had the highest median sensitivity at 227 basis points, while the Midwest Region had the lowest median sensitivity at 105 basis points.

All five regions saw their median sensitivities rise, with the Southeast Region's sensitivity rising the most (16

basis points) and the Central and West Regions' sensitivity rising the least at three basis points.

The Central Region had the highest median pre-shock NPV ratio at 13.42 percent. The Southeast Region had the lowest pre-shock NPV ratio at 12.07.

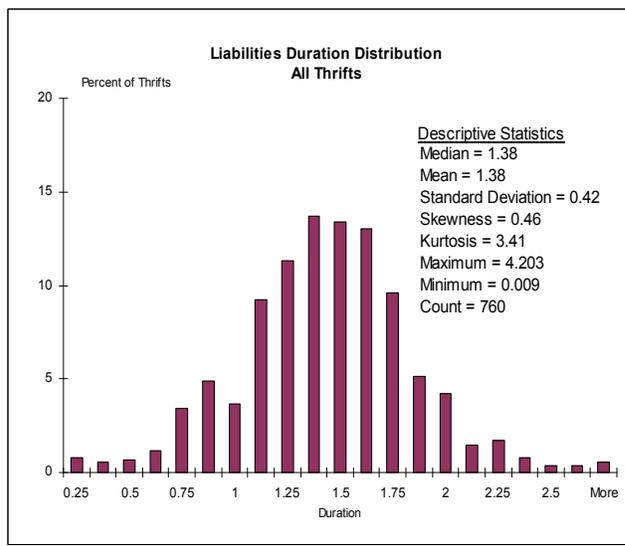
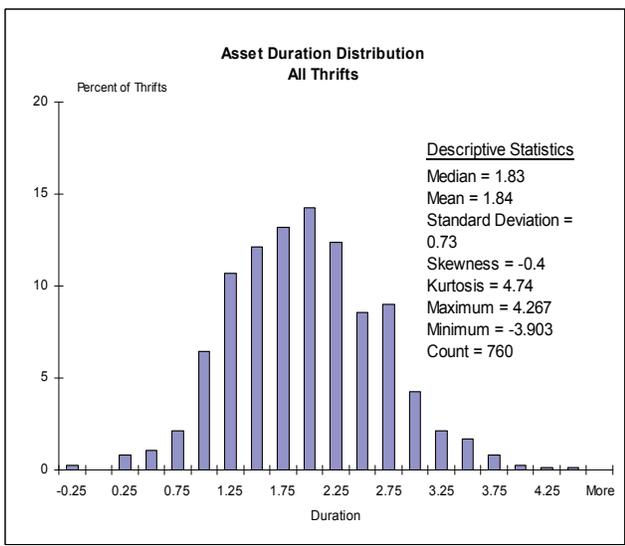
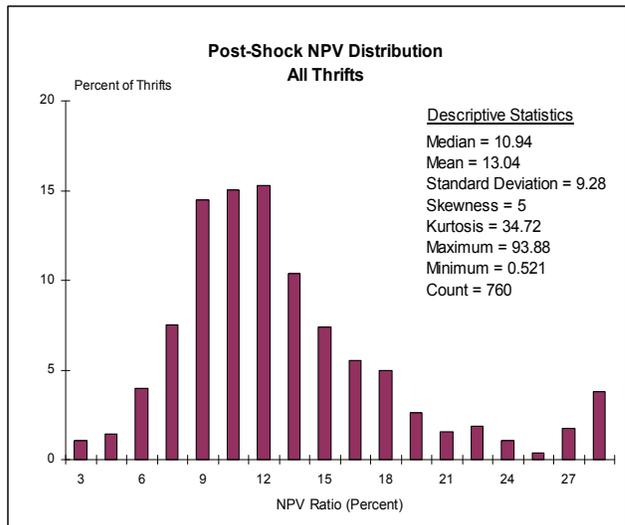
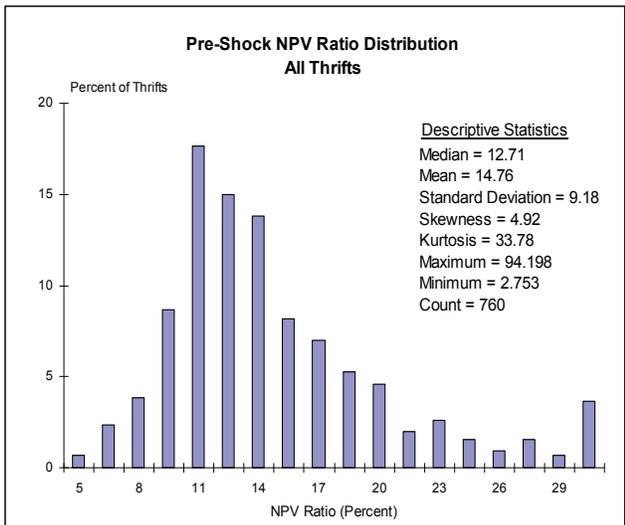
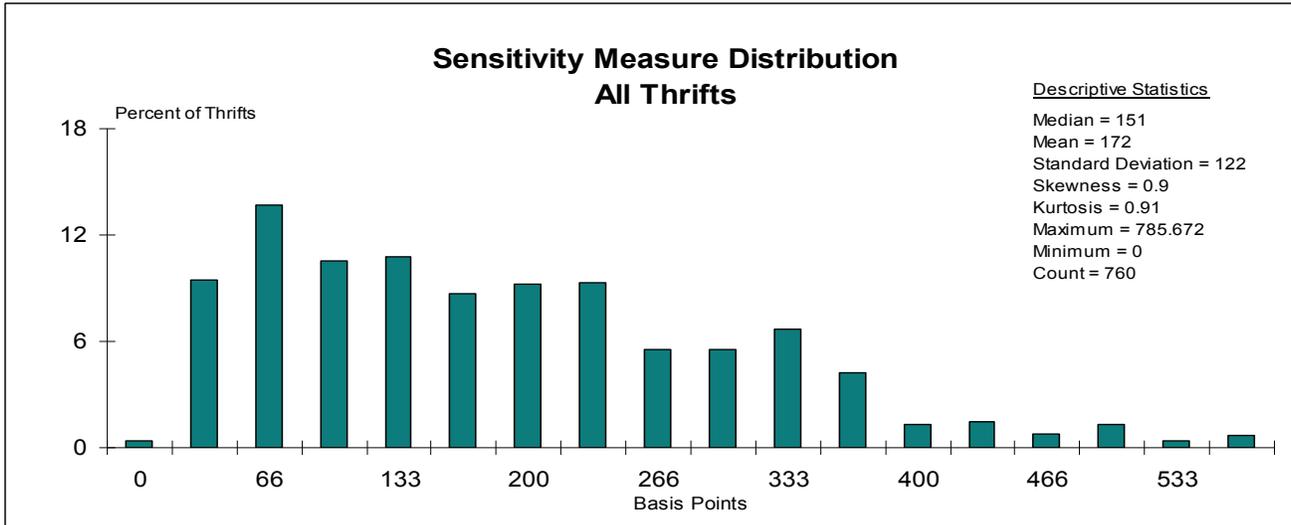
The Midwest Region had

the highest median post-shock NPV ratio, at 11.49 percent, while the West Region had the lowest, at 10.54 percent. While the overall post-shock median ratio decreased 39 basis points, the Southeast Region showed a decline of 69 basis points with the West Region improved 12 basis points.

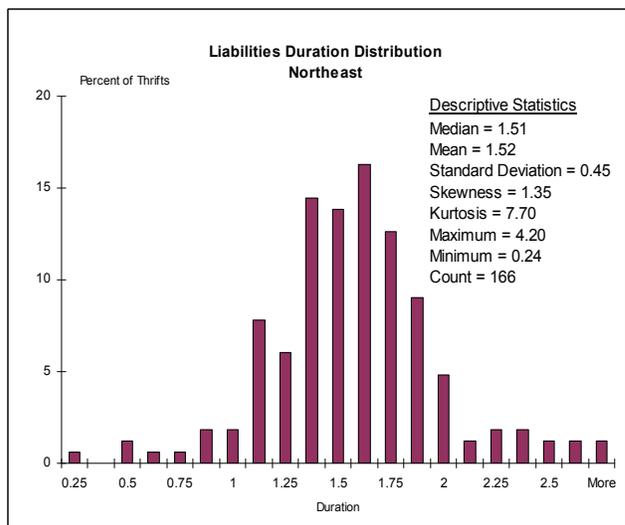
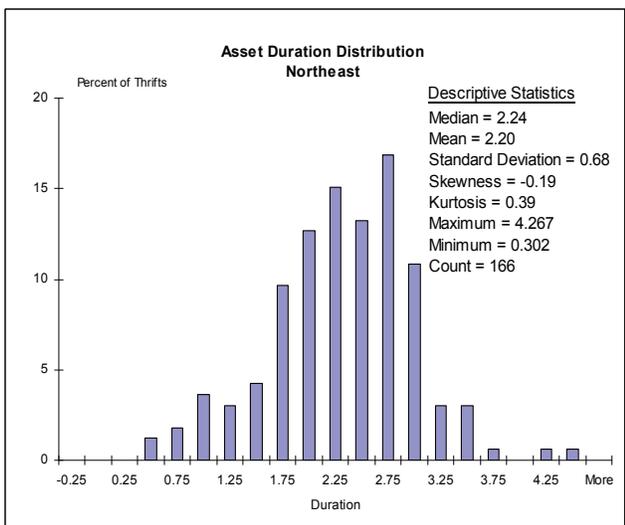
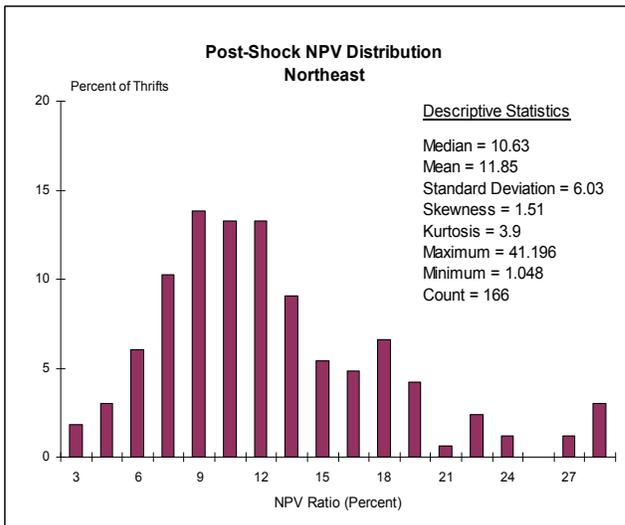
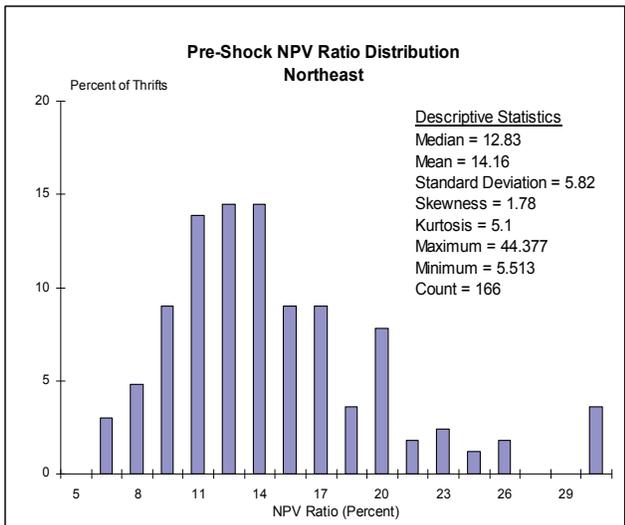
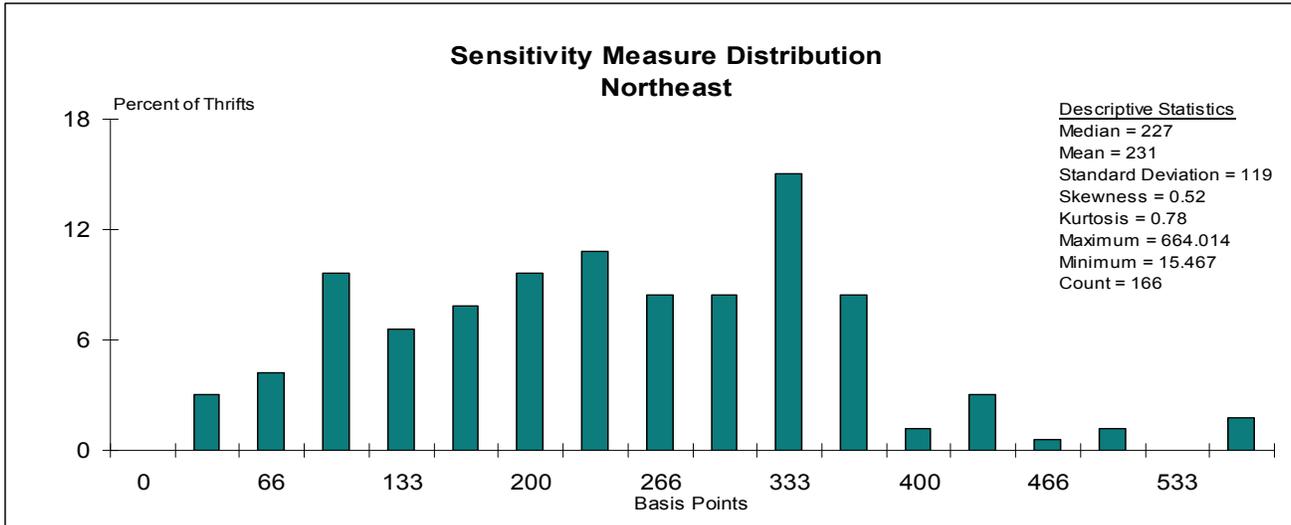
The Northeast Region had the highest median asset duration, at 2.24, while the Midwest Region had the lowest, at 1.61, at quarter end.

The Southeast Region had the lowest median liability duration, at 1.21, while the Northeast Region had the highest, at 1.51. ■

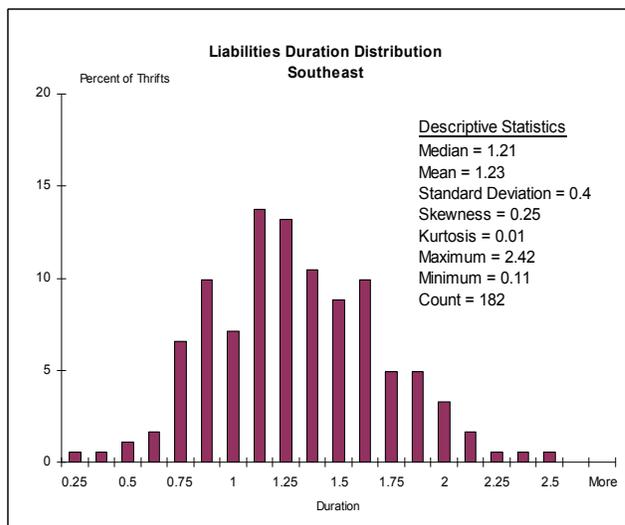
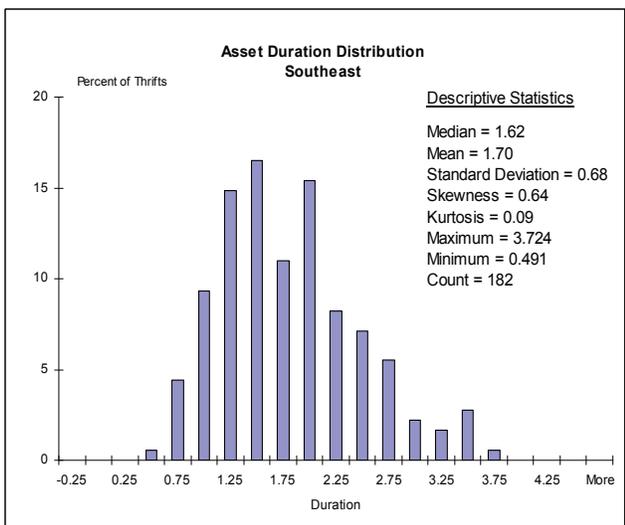
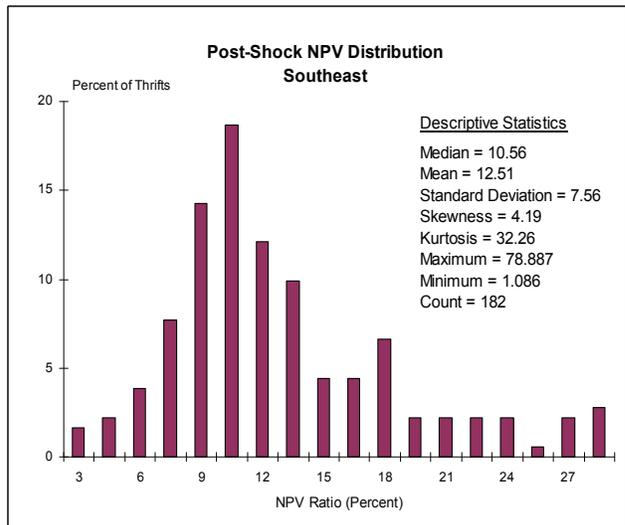
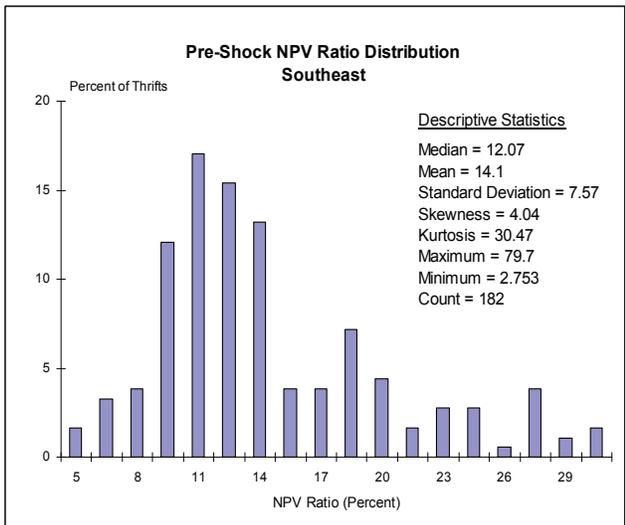
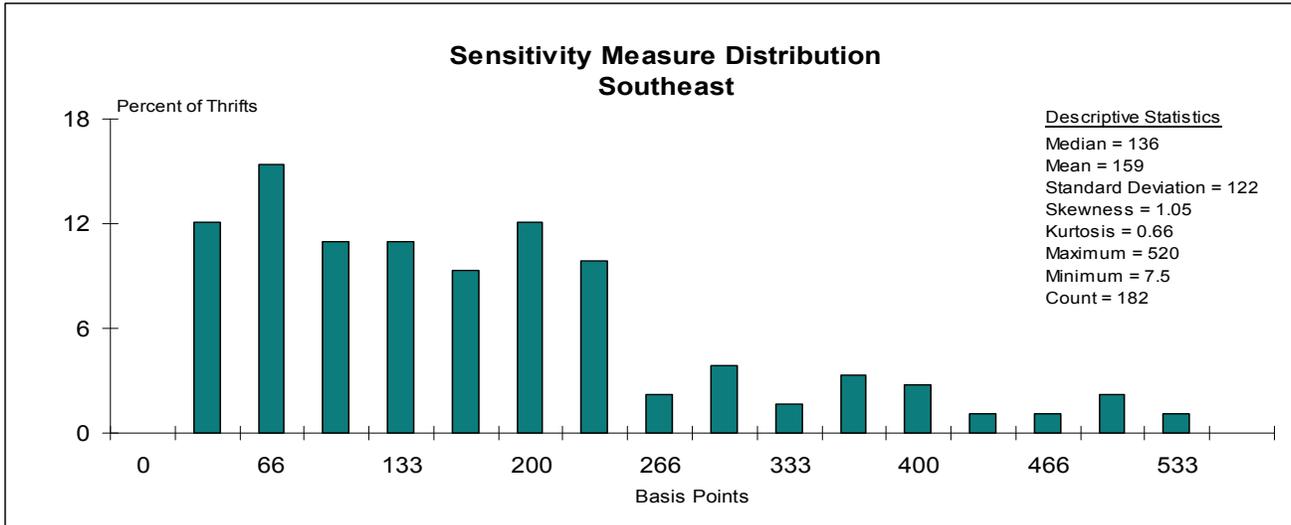
## Appendix A – All Thrifts



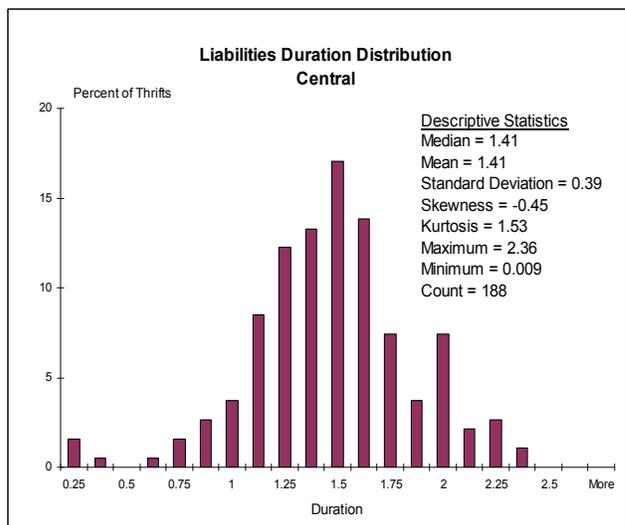
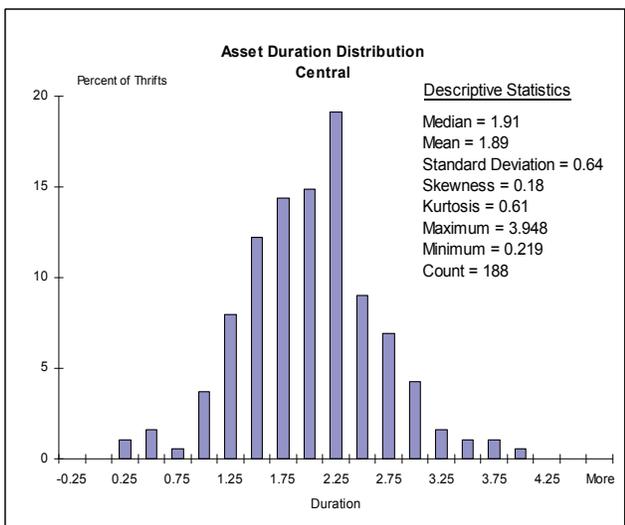
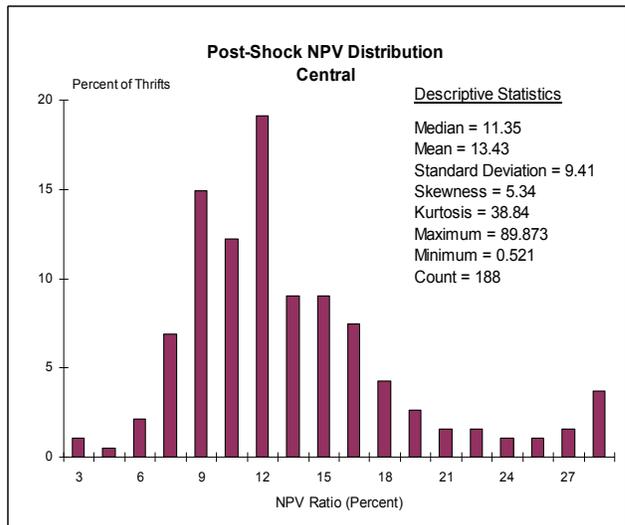
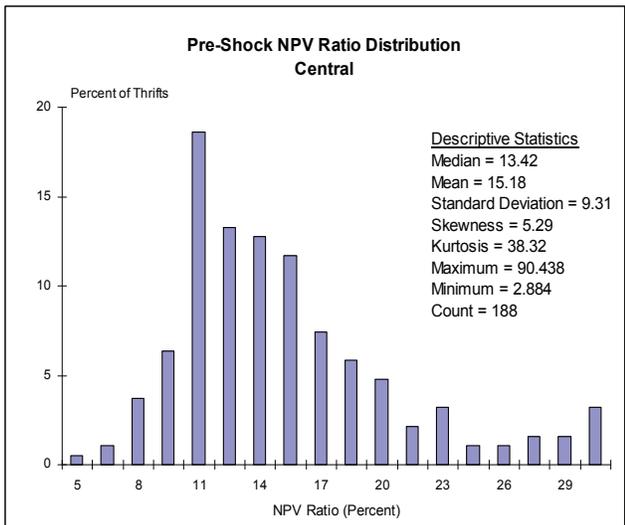
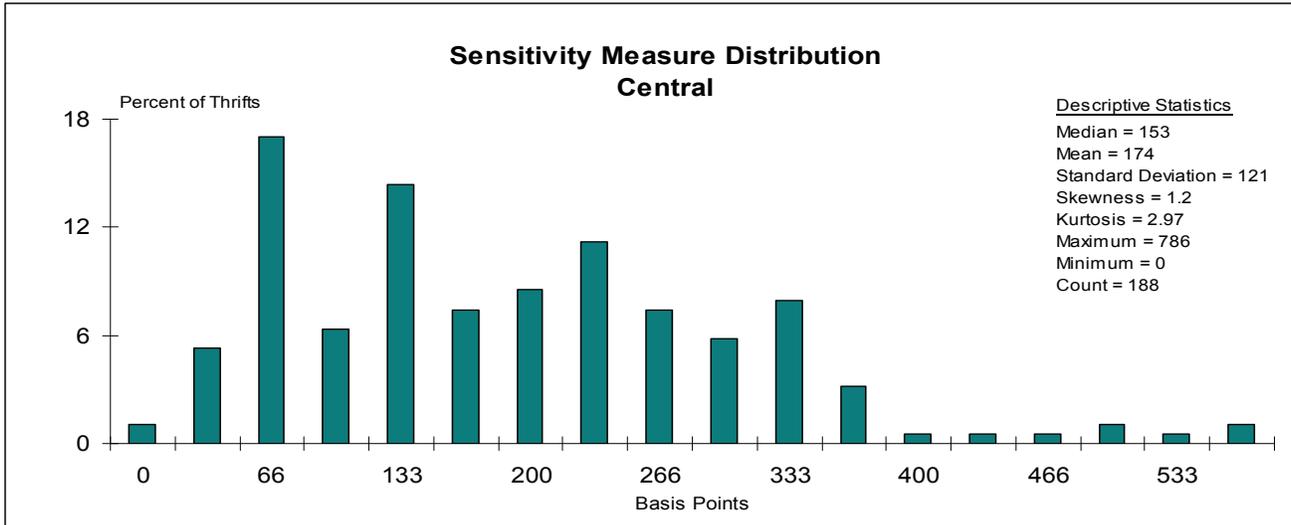
## Appendix B – Northeast Region



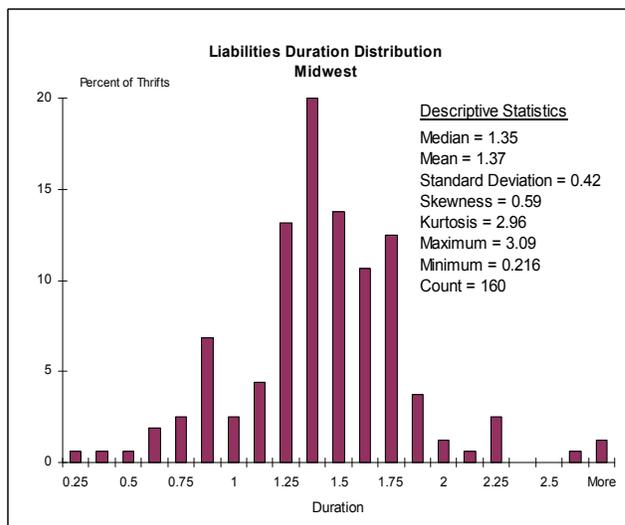
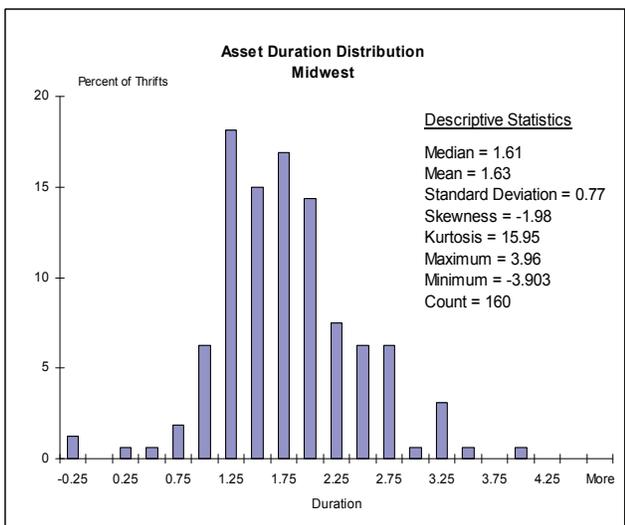
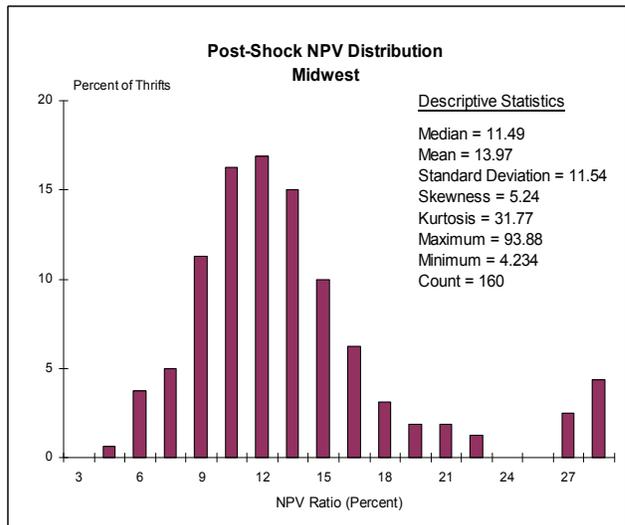
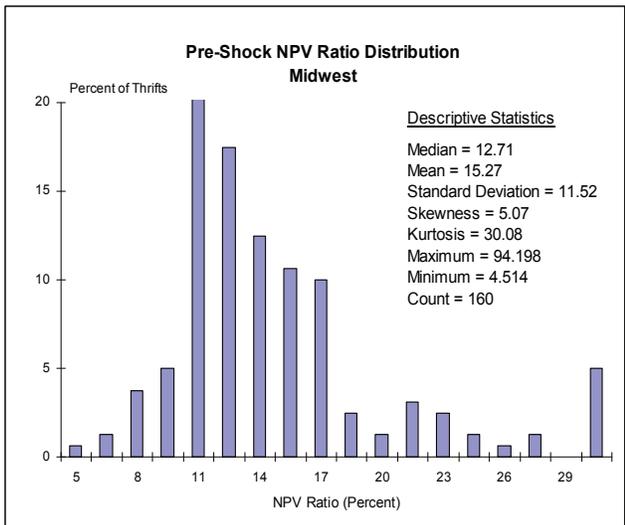
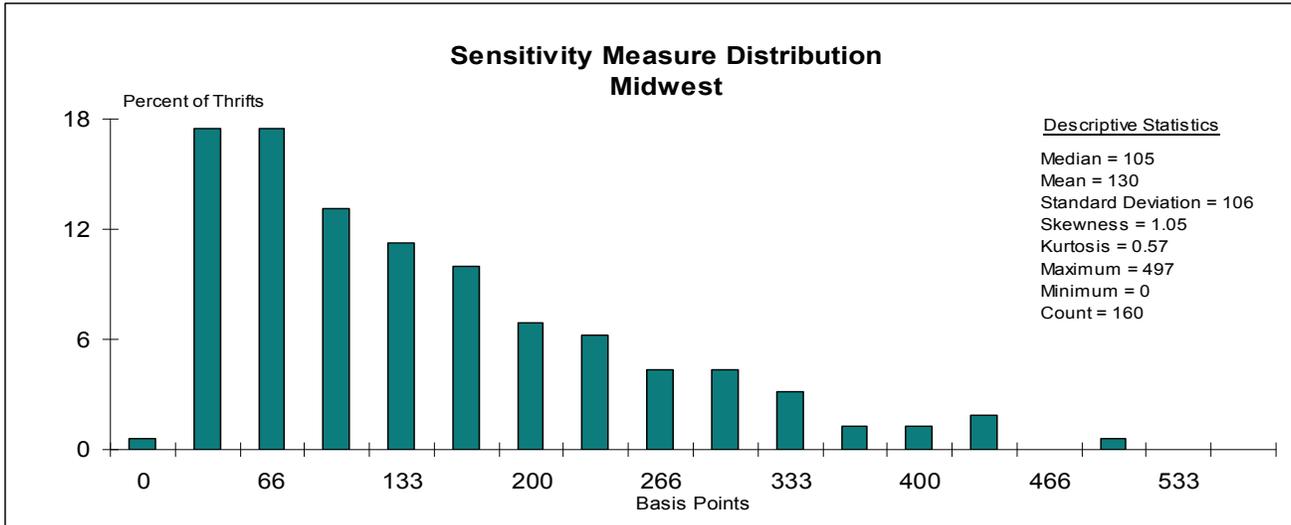
## Appendix C – Southeast Region



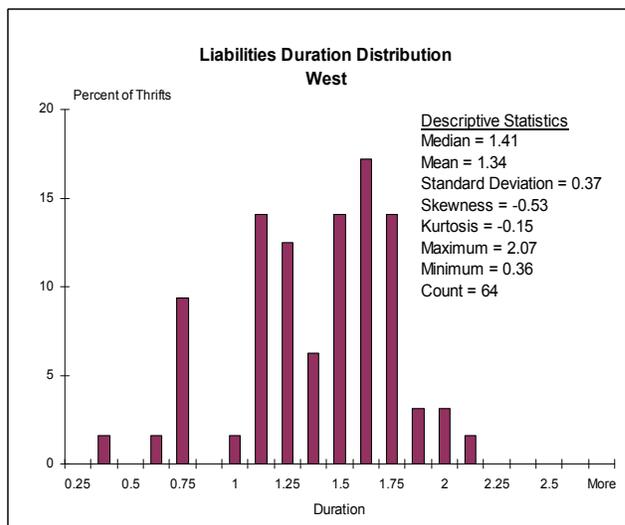
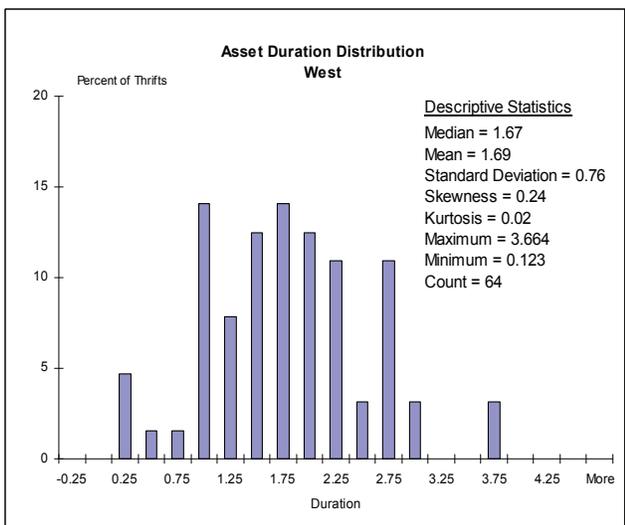
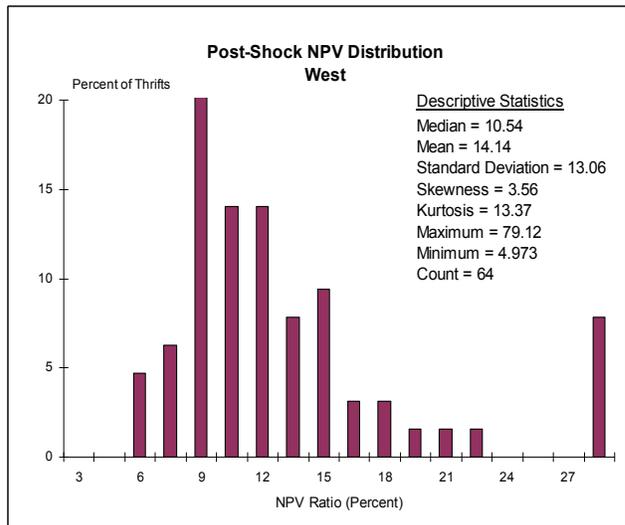
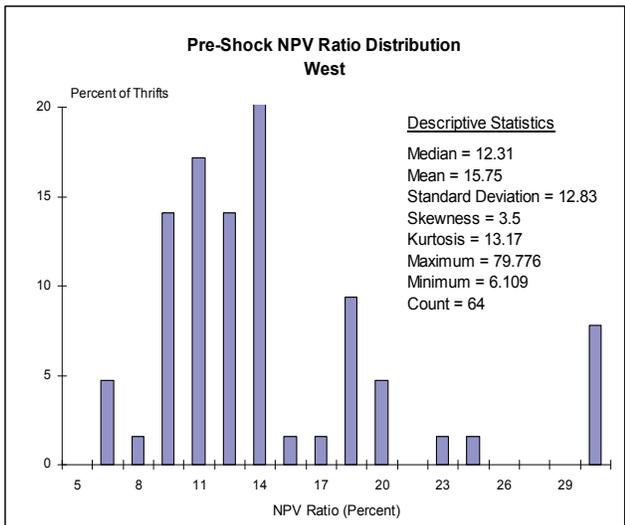
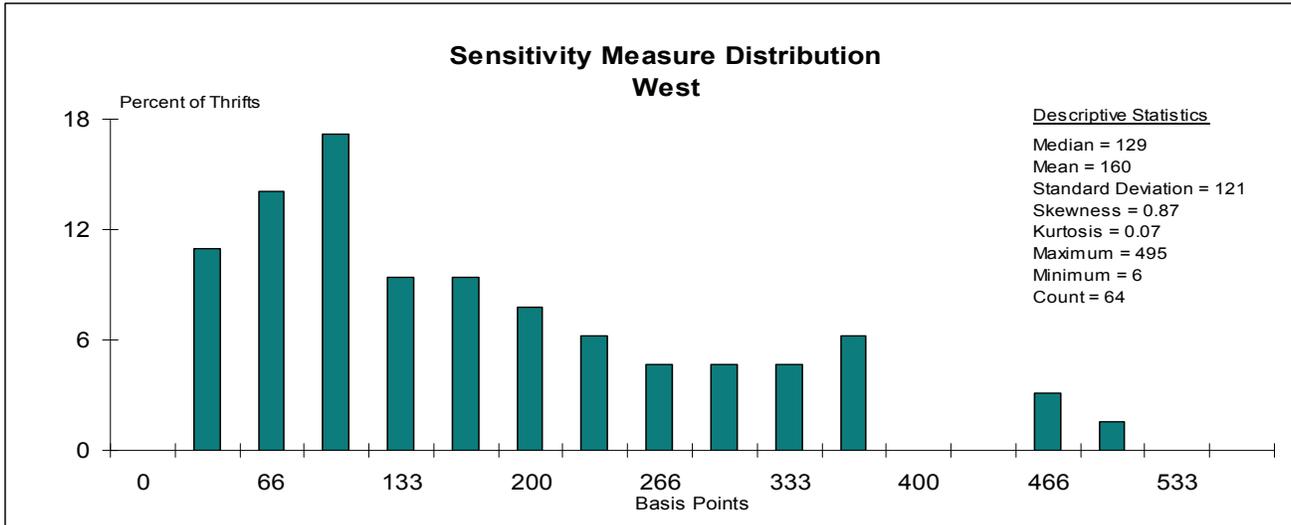
## Appendix D – Central Region



## Appendix E – Midwest Region



## Appendix F – West Region



## *Glossary*

**Duration:** A first-order approximation of the price sensitivity of a financial instrument to changes in yield. The higher the duration, the greater the instrument's price sensitivity. For example, an asset with a duration of 1.6 would be predicted to appreciate in value by about 1.6 percent for a 1 percent decline in yield.

**Effective Duration:** The average rate of price change in a financial instrument over a given discrete range from the current market interest rate (usually, +/-100 basis points).

**Estimated Change in NPV:** The percentage change in base case NPV caused by an interest rate shock.

**Kurtosis:** A statistical measure of the tendency of data to be distributed toward the tails, or ends, of the distribution. A normal distribution has a kurtosis statistic of three.

**NPV Model:** Currently measures how five hypothetical changes in interest rates (three successive 100 basis point increases and two successive 100 basis point decreases ) affect the estimated market value of a thrift's net worth.

**Post-Shock NPV Ratio:** Equity-to-assets ratio, following an adverse 200 basis point interest rate shock (assuming a normal interest rate environment), expressed in present value terms (i.e., post-shock NPV divided by post-shock present value of assets). Also referred to as the exposure ratio.

**Pre-Shock NPV Ratio:** Equity-to-assets expressed in present value terms (i.e., base case NPV divided by base case present value of assets).

**Sensitivity Measure:** The difference between Pre-shock and Post-shock NPV Ratios (expressed in basis points).

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