

The Quarterly Review of Interest Rate Risk

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

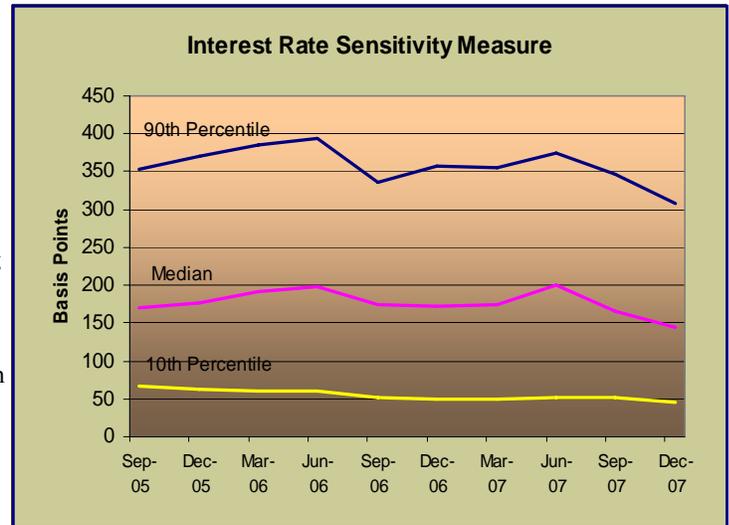


Special points of interest:

- 30-yr mortgage commitment rate declines 32 basis points
- Treasury yield curve drops in the fourth quarter
- Fourth quarter median interest rate sensitivity declines and with post-shock NPV ratios improving
- Asset durations shorten and liability durations lengthen
- Comparative Regional Analysis
- Feature article provides a primer on asset-backed commercial paper

Fourth Quarter Sees Sensitivity Decline

Between September 30, 2007 and December 31, 2007, interest rates declined and the yield curve steepened slightly. The most dramatic changes occurred in the one-year to five-year range with the one-year Treasury rate dropping 71 bps, the two-year rate dropping 92 bps and the five-year rate dropping 78 bps. Significant, albeit less dramatic, changes also occurred for the short-term (less than one year) and long-term maturities. The three-month and six-month rates dropped 46 bps and 60 bps respectively. The ten-year Treasury rate went from 4.59 percent to 4.04 percent and the 30-year Treasury rate declined from 4.83 percent to 4.45 per-



cent - declines of 55 bps and 38 bps, respectively. During the quarter, the 30-

year mortgage rate on conforming fixed rate loans declined
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Liquidity Risk Management

Recent market stresses were mounting long-before events crystallized in the summer of 2007 (see Chart-1, pg. 2). The seeds for market turmoil were sown years prior with the rapid growth of credit, widespread expansion of complex, non-transparent new products, and a long-term trend of low-risk premiums and subdued volatilities. These factors, when combined with the market's perennial drive for short-term results that exceed risk-adjusted market expectations (as well as regulatory capital management programs), set the stage for current conditions. Supporting the above market circumstances was an ever present and innovative mortgage

origination, investment banking, rating agency, and bond-insurance assembly-line that fostered rapid growth and evolution in mortgage credit, over-the-counter (OTC) credit-trading, and structured finance. Labeled the "shadow financial system", the off-balance sheet financing market was used to support the industry's continued growth in credit and allowed for the creation of systemic risk and leverage that, in hindsight, was not entirely transparent. Within this originate-to-distribute model of finance, entirely new taxonomies of structured vehicles were invented to support origination volume, investor preference and the appetite for higher-yielding

product. Banks, logically and wisely, sought to disperse risk rather than keep it on their balance sheets, but clearly misjudged some of their contingent liquidity, counterparty credit, operational and reputational risk exposures to the growing "shadow system". Since the on-set of the current turbulence, one of the dominant financial topics has been the issue of liquidity and liquidity risk management (LRM). It has become clear to many banks and market participants that LRM, both at the firm- and systemic-level, must be improved. While important to improve understanding and transparency around li-
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Liquidity Risk Management (continued)

(Continued from page 1)
 liquidity vulnerabilities, there is also an increased awareness that financial and non-financial risks are often interconnected in unexpected, albeit significant, ways. For example:

- How do credit risk exposure, spread and spread volatility impact market, funding liquidity, and counterparty risks?
- How are reputational, credit, interest-rate and funding risks related?
- Can non-contractual commitments create capital and funding problems?
- What role, if any, does capital play in correcting or mitigating exposure to liquidity risk?
- How resilient are my contingency plans? Have they been tested in time of stress?

- Do my scenario analyses and stress-testing regimes consider sufficiently extreme circumstances, and has there been rigorous consideration of collateral, counterparty, regulatory and legal entity issues?

Implied by these questions is awareness that liquidity risks – both market and funding - are risks that derive from other expected and unexpected exposures. Given the inherent complexities necessary for effective LRM, and faced with the changes and innovations noted above:

- What can a bank do in order to create a more effective and flexible infra-structure for identifying, measuring and controlling liquidity risk?
- How can a financial organization answer the above questions in ways that will aid the firm’s resilience in times of crisis, as well as more routine and normal conditions?

This article will explore these issues, seeks to establish some discussion points that we will continue to discuss in future articles, and ends with a discussion of what the OTS can do to assist firms in assessing risk exposures, including liquidity risk. We start by reviewing the seeds for today’s market turmoil and how this led to significant market and liquidity risks.

Credit Growth: The Seeds of Today’s Market Turmoil

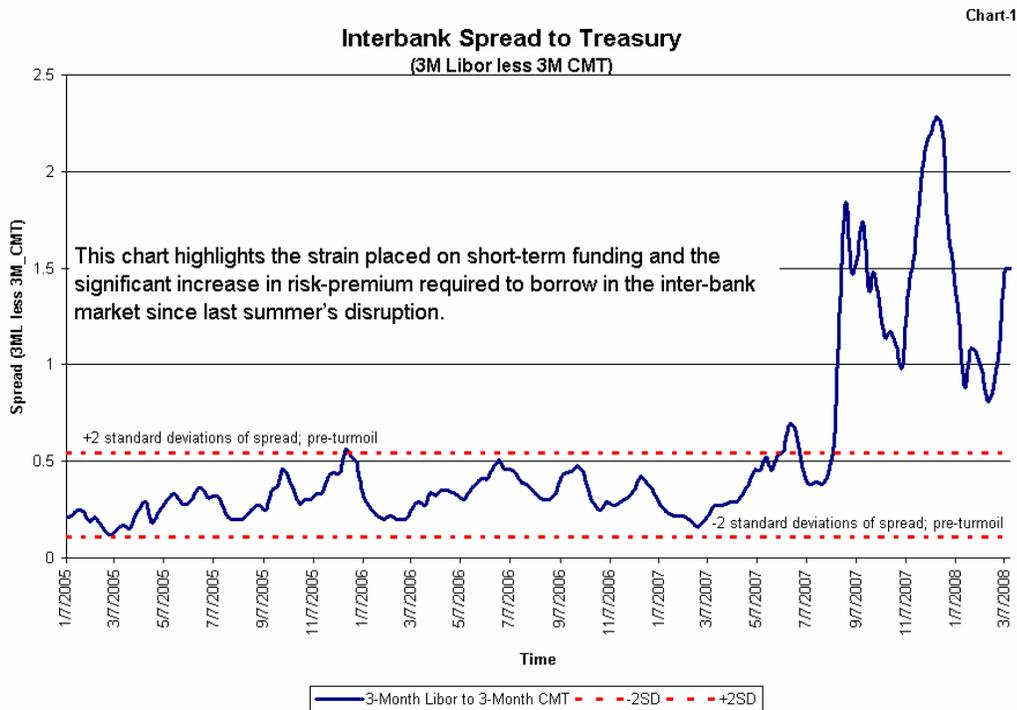
Prior to the recent turbulence, there was a general belief that market and funding liquidity would be available on demand. Many market participants and economists wrote of the system’s “glut of liquidity” and considered this wide and deep pool of funding as a possible explanation for persistence in low long-term rates. In particular, the global increase in savings and wealth,

and resultant increase in dollar reserves by central banks in major markets, served to provide funding for America’s consumer spending and worked to keep longer-term rates and risk-spreads lower than otherwise would have been expected.

The combination of slow, well communicated and significant increases in the targeted fed fund rates (i.e., from 1.00% to 5.25%) beginning in June of 2004, coupled with persistently low long-term yields, produced a flat and ultimately inverted yield curve, making bank earnings growth difficult. Prior to June-04, the average curve slope (10-year less overnight, from Dec-2001 until June-2004) was 250bp; from June-04 through Dec-07, the slope has averaged 50bp. This curve flattening made it progressively more difficult for banks to earn the net interest income, fees and returns established in prior “boom-town” years, and expected on a go-forward basis by equity investors.

This market environment provided natural incentives to increase the volume and leverage on riskier lending (see Chart-2), in particular allocating risk capital to product sets that paid larger fees and commissions, and commanded greater selling premiums (i.e., gain-on-sale). This industry-wide stretch for yield, greater fee-income and premium occurred during an unusual period of tranquility in credit spreads, historically low volatility and solid global economic growth. The concern of regime change was oddly subdued.

As is too often the case, whether dealing with technology bubbles, mortgage or nascent commodity bubbles, the



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Liquidity Risk Management (continued)

(Continued from page 2) marketplace seems to routinely suffer a type of amnesia believing that "...this time it is different." Caution, a bias for simplicity and basic good banking sensibilities (e.g., cash flow capacity repays loans, not collateral appreciation, enterprise-value lending or take-out sales), while unfashionable in times of boom, seem like unparalleled wisdom in times of crisis. Ultimately, it takes strong management to say "no" to volume growth, and risk the potential loss of market share when current headlines and competitor behavior seems to deny the sensibility of a more conservative path. It is awfully difficult to shun available growth and suppress firm-specific participation in exuberant markets, especially when incentives are based on current year earnings not long-term, risk-adjusted value crea-

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tion.

Ultimately, the stability enjoyed in the years leading up to the current crisis was destabilizing as the market became somewhat overconfident in its ability to access liquidity, accurately price complex products and enter-and-exit positions and portfolios. While enhanced LRM will not solve all of these issues, better governance and control of liquidity risk can and does affect real-world

outcomes, as witnessed by recent cases in which firms with inadequate internal processes to identify, measure and control liquidity risk were unable to survive without supplemental external support, and heroic market, regulatory and Central Bank actions.

What is Liquidity Risk and Liquidity Risk Management (LRM)?

As defined by the Basel Committee on Banking Supervision (BCBS), liquidity is the ability to fund increases in assets and meet obligations as they come due. Liquidity risk, therefore, is the inability to attain these objectives without undue impact to earnings and capital; effective LRM involves the processes, controls and infrastructures established to mitigate unacceptable exposure to such inherent and potential exposures. While currently an important issue, LRM is nothing new, although the complexity and urgency of

the topic has certainly increased as markets have become more integrated, reliance on wholesale funding more pervasive, and risk made more "portable" through off-balance sheet, derivative, and other financial instruments

In general, there are three central topics that must be effectively managed in order to address firm-wide exposure to liquidity risk: 1) market liquidity risk, 2) funding liquidity risk and 3) contingency planning, including stress-testing. Market liquidity risk is oriented around price changes, and P&L impacts; funding liquidity addresses cash flow estimation (assets as well as liabilities), and; contingent liquidity considers how, in the absence of market or funding liquidity, a bank can continue to meet obligations, particularly during periods of stress.

In Large Financial Institutions (LFIs), these various

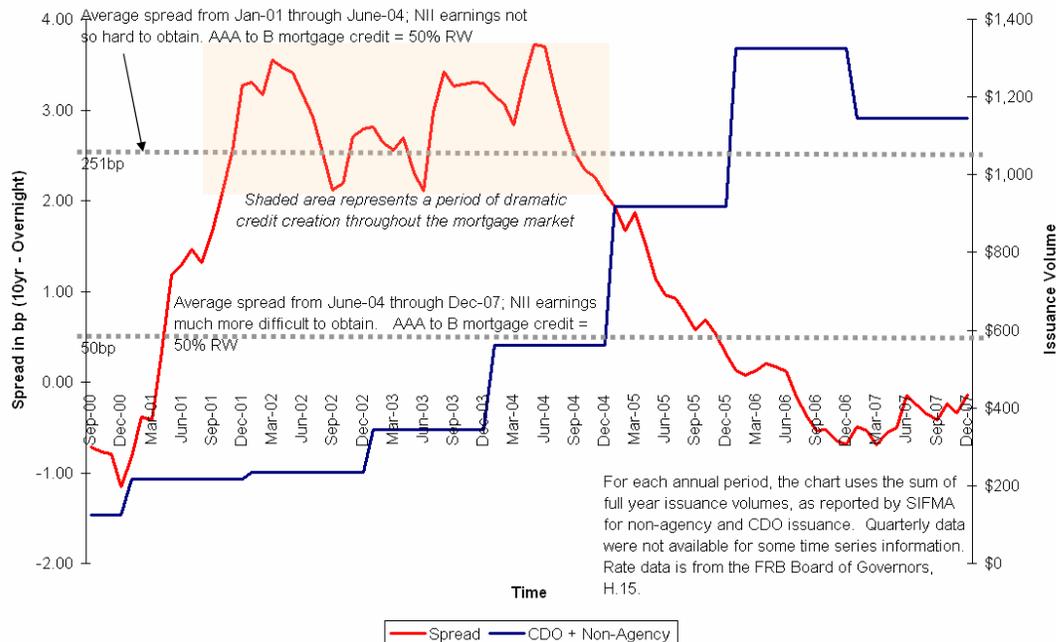
elements of liquidity risk management and control may not be managed on a consolidated basis. Rather, they may be managed at a group or legal entity level and - often - by different divisions. In LFIs, this may be unavoidable.

However, there is often a need for a firm-wide risk control function - within the consolidated enterprise - to take a view on and be accountable for group-wide policies, practices, risk tolerances and metrics. Within LFI's, there should be an independent risk-control group that has a strong understanding of material market, funding and contingent liquidity risk exposures and plans, regardless of geographic, legal entity or other factors. For smaller firms, the need for a firm-wide view is also needed; however, the formality of such structures will, by necessity, be different. Regardless, the oversight func-

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Yield Spread v. CDO and Non-Agency Issuance Volume

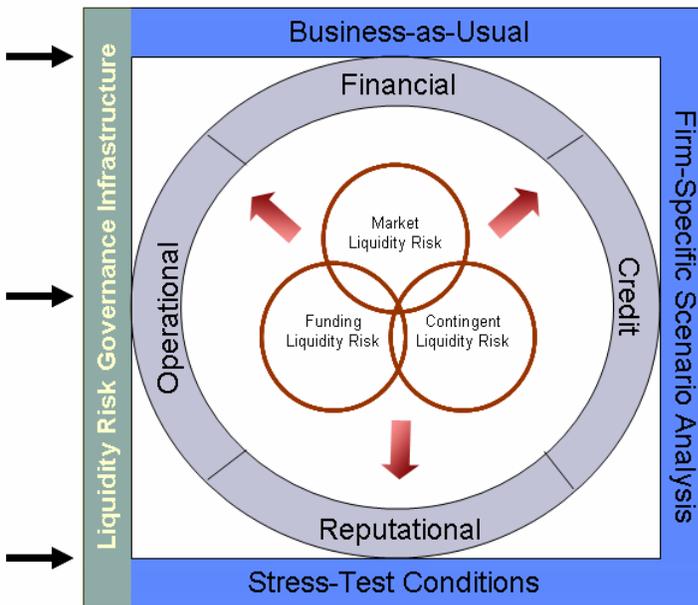
Chart-2



Liquidity Risk Management (continued)

FIGURE-1

Effective Liquidity Risk Management Requires a Holistic Perspective



Effective liquidity risk management (LRM) begins with the establishment of a comprehensive and strong internal governance process for identifying, measuring and controlling liquidity risk exposure. The LRM infrastructure naturally considers business-as-usual, firm-specific scenarios and stress-test environments, establishing risk metrics, policies, limits and reporting requirements for each operating condition. The LRM process considers not only market and funding risks, but how risks may create "compound" levels of risk and potential unexpected and connected exposures (e.g., reputation risk and counterparty risks). Measures of liquidity risk should be based on both structural condition and prospective (i.e., forward-looking) cash-flow measures.

tion should be in a position to assess inherent and prospective exposures to market and funding liquidity risk, and make a determination as to whether, in periods of stress, the bank's contingency plans provide sufficient mitigation to offset exposure, subject to Board established risk appetite and tolerance(s).

Although there has been significant improvement by firms in understanding the broader range of issues, and international consensus on practice is emerging, the range of practice for effective LRM is significant, and will likely remain so given the wide range of business models and risks to which firms are exposed. That said, Figure-1 seeks to illustrate some of the more critical elements required for effective LRM. While elements of the framework can and will differ from firm to firm, the general components

"Under extreme circumstances, and as witnessed in recent months, marginal capital availability can be insufficient when dealing with a severe liquidity crisis. In extreme circumstances liquidity issues will dominate, and significant capital strength may not mitigate severe liquidity exposures."

noted remain applicable for most organizations.

Beyond taking an integrated view of market, funding and contingent liquidity, an effective LRM function will consider liquidity risk impacts that may be the consequence of adverse impact or trend in credit exposure, firm reputation and name-risk(s), operational risks (i.e., transaction

processing, payment system and settlement issues) and numerous other potential financial risks, including price, interest rate, and financial commitments. Consideration to business-model and market position must be considered by LRM staff as, in times of crisis, firms can be severely penalized by actual and perceived "association" with risky markets, products and business-models, even if the underlying core capital and firm-position is fundamentally strong. While seemingly in opposition to the efficient market hypothesis, it is always good to recall John Maynard Keynes' famous quip that:

"The market can stay irrational longer than you can stay solvent."

Fear, not rational human action, can sometimes characterize actions in the broad. Under extreme circumstances, and as witnessed in recent months, capital availability can be insufficient when dealing with a severe liquidity crisis. In extreme circumstances, and at the margin, liquidity issues will dominate assumed capital

strength, especially when dealing with highly leveraged firms and complex, less-liquid assets. In such circumstances, the ability to sell-assets (i.e., asset-liquidity, a component of funding liquidity) to meet liquidity demands can be more important than capital strength, and the two issues – capital and liquidity (while not independent) – should not be confused. Significant capital strength may not mitigate severe liquidity exposures. This places a premium on maintaining, evaluating and governing contingency plans as a matter of both routine business, and in preparing for unexpected strain. For such planning to be effective, seasoned experience and critical judgments must be layered into an analysis. Ample consideration should be applied toward the creation of plausible, but low-likelihood (perhaps bordering the "implausible"), scenarios that can be used to simulate how a bank might react under extreme circumstances. Often it is a sound practice to consider the bank's survival horizon under certain adverse scenarios. This is a practice that is used by some

rating agencies to evaluate liquidity strength, and various other firms use similar approaches as disclosed in their financial reports. Asking the question: "Under what conditions and scenarios will I be unable to survive?" and assessing – on a judgmental basis - the likelihood of such scenarios can aid in planning for potential stress-events and counterbalancing capacity needs.

Liquidity Risk Control Requires Structural and Prospective Metrics

Given the discussion above, it should be clear that many LRM issues require expert judgment and cannot be solely relegated to risk models. Subjective judgments and analyses will always be required; however, while models may not be sufficient for determining liquidity risk exposure, they are often necessary. In today's world of complex products, derivatives, structured investments, unfunded commitments, credit spread volatility, collateral management and off-balance sheet exposures (contractual and

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Liquidity Risk Management (continued)

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non-contractual), assessing liquidity risk by using models is virtually a requirement.

Management information systems that are flexible and permit the construction of cash flows at various levels of granularity are critical for the effective measurement and modeling of liquidity risk. The ability to produce contract level cash flows for balance sheet instruments, off-balance sheet commitments, derivatives and off-balance sheet product(s), both under normal conditions as well as during periods of stress, is essential. Importantly, the need to capture the contingent nature of certain off-balance sheet and derivative products can be important for firms that have material intra- and inter-day cash flows, or operational functions, related to these activities.

For LFI's, complicating the measurement of liquidity risk are system-issues related to integrating various data feeds across legal entities, time zones, product and business units and other dimensions. Considerable thought must be exercised to ensure that the overall system design and architecture provides sufficient flexibility to capture, track, monitor and assess liquidity risk positions across these numerous dimensions while maintaining consistency around scenarios, behavioral characteristics of instruments and assumptions used to drive risk reporting output.

Measurement systems and metrics used in financial organizations with sound practice include internal processes to charge business groups for the use of funds, including - where appropriate - funding and liquidity charges. Such internal systems are important as these solutions allow for proper financial incentives between the funding provider(s) (often central treasury) and the fund users, which may be warehouse lending, mortgage, commercial lending or other lines of business. Such internal systems

and processes permit firms to tie performance and profitability systems to risk relationships, thereby fostering a more rigorous and complete pricing discipline throughout the firm. Making these measures, and underlying processes that support these measures, transparent across the firm improves liquidity management and resource utilization, and can create rigorous insight into economic returns and risk-taking activities.

Regardless of complexities in establishing such infrastructure(s), firms may need to begin by establishing an appropriate liquidity risk measurement governance and policy framework that includes structural and prospective metrics that are appropriate to the business in question, as well as the business complexity and potential exposure to external events. The firm must make decisions regarding a) the use of limits, thresholds, and triggers and, importantly, how to b) track the trend in these measures through time, c) report-

ing requirements, d) escalation processes when limits, thresholds or triggers are breached and e) communication and response protocols, internal and external. Given the contextual nature of liquidity risk, there are no universally appropriate metrics that can or should be consistently applied across entities. There are, however, common themes of sound LRM that should be assessed and for which banks are expected to formulate an appropriate measurement framework.

The measures created by this process should be comprehensive, forward-looking and permit the measurement of potential exposure relative to various holding periods and time-horizons. Using these ideas, Table-1 highlights some of the key measurement questions that may be answered.

Supervisory Next Steps?

Currently, there is significant activity in the market to improve the governance of liquidity risk. Of all the work being performed,

perhaps most critical is the work of the Basel Committee's Working Group on Liquidity (WGL). The WGL has been chartered to assess current industry practices and, in light of recent market lessons, update the February 2000 Sound Practices for Managing Liquidity in Banking Organizations. The current guidance, while good and relevant for many dimensions of sound liquidity risk management practice, is lacking in some areas where recent market experience has provided key lessons. In particular, the existing guidance deals superficially with asset securitization and off-balance sheet exposure considerations and can be improved around the topics of stress-testing, contingency plans, payment systems and collateral management. While no final date has been established for the issuance of the new guidance, publishing new guidance is clearly a timely topic and one that can serve to enhance industry-supervisory dialogue.

In addition to the above, the

TABLE-1	Structural Measures	Prospective Measures
Business-as-usual measures	What are the tactical metrics that the firm employs in order to assess inherent operational liquidity risk?	What measurement does the firm use in order to assess pro-forma (forecast) liquidity needs that may arise from forecasted cash flows related to routine sources and uses of funding?
Scenario- and sensitivity-based measures	Under firm- and market-specific scenario(s), what is the resilience of the firm's inherent liquidity risk? How do balance sheet (i.e., structural) ratios and indicators of strength and vulnerability change?	Given idiosyncratic scenarios, how do forward-looking measures of risk change over firm-specified time horizons (30-days, 60, 90 and longer time-frames)? Are these funding gaps and other exposures mitigated through availability of contingent sources of liquidity?
Stress-test measures	Under low-probability stress-test scenarios, whether subjective-hypothetical or historical, how is the firm's structural risk impacted? Are such extreme conditions mitigated? Can they be mitigated?	Under broad-based, low-probability stresses, how strong are my contingent sources of liquidity risk? Where may cash-flow, collateral and contingent exposures rise in an unexpected manner? Are there triggers, early-warning indicators or limits that can be used to diagnose problems early-on? Under what conditions and time-frame would liquidity "failure" occur?

Liquidity Risk Management (continued)

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U.S. Agencies have been contemplating the issuance of new guidance for liquidity risk. A key element of both documents likely will be an increased emphasis on prospective measures of risk exposure, stress-testing and contingency planning. As guidance continues to roll out, one clear priority will be for banks to begin considering how best to ensure that market, funding and contingent liquidity risk management practices can be integrated with operational, scenario and stress-testing processes in such a way that they become compliments for one another, as opposed to separate exercises that fail to effectively integrate into the bank's internal risk and reporting governance process. The need for more intelligent, prospective measures of liquidity risk and exposure reporting will gain importance throughout the supervisory examination processes, and banks should undertake an energetic review of their internal management reporting, policies, processes and control mechanisms.

Beyond the above items, it is important for bank supervisors to consider the manner in which risk is assessed, and the transparency provided by current disclosures and data collection regimes. In order to better assess systemic risks, keep track of portfolio exposures and determine emerging areas of risk, there is a strong need for regulators to consider establishing a more rigorous data model that covers not only cash positions at finer levels of resolution, but off-balance sheet and other derivative exposures. Without a doubt, these efforts are difficult, requiring significant collaboration and, perhaps, Congressional mandate; however, it is difficult to avoid the conclusion that today's tedious, out-dated and uncoordinated data collection processes have contributed to the lack of transparency in the market, and that a better job can be done.

How the OTS Can Help Your Organization?

In 2006, the OTS realized a need to better analyze credit risk,

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in particular default and loss-risk, in joint-fashion with interest rate, market and liquidity risk. This need arose as more complex risks were being taken on-board by constituent banks.

Although bank supervisors normally rely on internal models to assess such risk, it is rare for internal models to be subjected to rigorous benchmarking and comparison to companion risk models, or for modern risk models to be used for broader industry risk surveillance. This has been largely due to computation and algorithm constraints and data collection, data aggregation, and data management hurdles; constraints that in quite a few cases are over-exaggerated given the more recent advent of technologies such as web-based, service-oriented architectures (SOA), improved data modeling tools, better Extraction-Transformation-Loading (ETL) technologies and the availability of affordable computation grids. While data requests used to be a significant burden due to database, storage and other limitations, today's technologies make data-exchange, security, storage, reconciliation and review much easier. Regardless of the ease with which many of these tasks can now be per-

formed, the need to more intelligently use data to evaluate systemic and firm-specific exposure is an important supervisory function.

The OTS has been a leader in modeling a bank's balance sheet product(s) since the early 1990's and the promulgation of FDICIA 305, which dealt with interest rate risk (IRR). Recently, the Agency re-vamped its older technology and algorithms and has created an internet, web-based tool that can allow for rigorous analysis of a Thrift's balance sheet to include not only interest rate, but also credit and liquidity risk implications.

The underlying algorithms are based on the same modern risk analysis frameworks used by industry leaders and can produce risk reports that can be evaluated against available internal reports. Ultimately, the modeling technology will be able to create an estimate of firm-specific economic capital, with an eye toward providing a risk-index to the Agency for better risk-focused supervisory work. Such capability will permit the OTS to better assess portfolio and system-wide risk(s), as well as enhance the allocation of scarce technical-expert resources to those horizontal portfolios, exposures and firms that require more scrutiny.

While the new model allows for traditional firm-level Consolidated Maturity and Re-pricing (CMR) reporting, the technology currently being used by OTS risk modeling staff permits a fine-grained (i.e., no-aggregation) analysis of position risk. While the Agency is not requiring firm's to use the more advanced model(s), several financial organizations have begun to voluntarily use the system(s) and tools (and OTS expert staff) to benchmark their own internal modeling technologies and vendor-supplied tools, test internal value-estimates on credit sensitive products, produce enhanced risk measures, customize CMR reports, evaluate FHLB

structured advance pricing, and other analyses.

Regarding liquidity risk specifically, the OTS will be publishing new Liquidity Gap reports, on a pilot basis, for various Schedule CMR-filing Thrifts in the coming months. These new Liquidity Gap reports will allow firms to ascertain their net cash flow maturity profile, based on the new suite of OTS modeling tools, and using standard CMR input file(s). The outputs from these reports can be analyzed against the bank's internal model outputs, in base-case as well as various scenario-specific circumstances. The standard analysis package will include a base-case environment and +/-100 and 200bp stress scenarios. Each of these scenarios will, of course, include various behavioral responses to cash flows, dominated by prepayment rates on the asset-side of the balance sheet and call-algorithms on the funding side. Even more rigorous loan- and transaction-level input can be accommodated on a case-by-case basis for more fine-grained analysis; however, our standard reporting will use approaches as previously published by the OTS.

- by Thomas Day



Fourth Quarter Sees Sensitivity Decline (continued)

(Continued from page 1)
from 6.28 percent to 5.96 percent. The target for the federal funds rate was lowered to 4.25 percent at the end of the fourth quarter from 4.75 percent at the September quarter end. Additional rate cuts were made in the first quarter of 2008 with the federal funds target rate lowered to 2.25 percent on March 18, 2008.

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 improved 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.

The continued housing market distress resulted in losses in earnings and profitability, and a decline in asset quality measures in the fourth quarter of 2007. Earnings losses in the fourth quarter were focused primarily in a small number of thrifts with large goodwill amortization and restructuring charges. Strong capital levels and appropriate loan loss provisions are expected to position thrifts for the loan losses anticipated in 2008.

During the fourth quarter, thrifts set aside \$5.1 billion in loan loss provisions, or 1.35 percent of average assets. That's up from 0.92 percent (\$3.5 billion) in the previous quarter and 0.45 percent (\$1.6 billion) in the fourth quarter one year ago. Delinquencies for most loan types increased over the past year and continued to rise in

the fourth quarter. The largest increases in delinquency rates were in 1-4 family mortgages and construction loans.

Troubled assets, which consist of noncurrent loans and repossessed assets, were up 46 basis points from the prior quarter at 1.65 percent of assets, and were up from 0.70 percent one year ago. Excluding repurchased GNMA loans, troubled assets were up 45 basis points from the prior quarter at 1.60 percent of assets, and were up from 0.63 percent one year ago. Repossessed assets were up four basis points from the prior quarter at 0.20 percent of assets, and were up from 0.09 percent one year ago.

Capital measures for the industry continue to be strong, stable, and well in excess of minimum requirements. Equity capital at the end of 2007 was 9.46 percent of assets, down from 10.72 percent one year ago, and from 10.16 percent in the prior quarter. At the end of the year, 99 percent of the industry exceeded well-capitalized standards and three thrifts were less than adequately capitalized.

In the fourth quarter, net losses of \$5.24 billion were reported, down from net income of \$657 million in the third quarter and from net income of \$3.14 billion in the fourth quarter one year ago. This was the first quarterly loss reported by the thrift industry since a special assessment was collected in the third quarter 1996 for the Savings Association Insurance Fund. Write-downs of goodwill, restructuring charges, higher loan loss provisions, and losses on asset sales drove the losses in the fourth quarter.

In the fourth quarter, return on average assets (ROA) was a negative 1.38 percent, down from 0.89 percent in the comparable year ago quarter, and down from 0.17 percent in the prior quarter. The median ROA declined to 0.40 percent in the fourth quarter from 0.52 percent in the fourth quarter one year ago, and was down from 0.48 percent in the prior quarter. Return on average equity (ROE) was a negative 13.89 percent in the fourth quarter, down from 8.89 percent in the fourth quarter one year ago and from 1.65 percent in the prior quarter.

Net interest margin averaged 261 basis points, down from 271 basis points in the comparable quarter a year ago, but up from 260 basis points in the prior quarter. Loan loss provisions were 1.35 percent of average assets in the fourth quarter, up from 0.45 percent in the fourth quarter one year ago and from 0.92 percent in the prior quarter. The recent increases in loss provisions reflects the increase in noncurrent loans stemming from the slower housing market and the deterioration of loans originated in the past several years.

Total fee income for the quarter was 1.15 percent of average assets, down from 1.26 percent in the fourth quarter one year ago, and from 1.18 percent in the prior quarter. Other noninterest income was a negative 0.51 percent, down from 0.43 percent in the fourth quarter one year ago and from 0.12 percent in the prior quarter.

Noninterest expense rose to 3.72 percent of average assets, up from 2.59 percent in the comparable year ago quarter and from 2.75 percent

in the prior quarter. General and administrative expense, the largest component of non-interest expense, increased three basis points to 2.62 percent of average assets in the fourth quarter from 2.59 percent in the comparable year ago quarter.

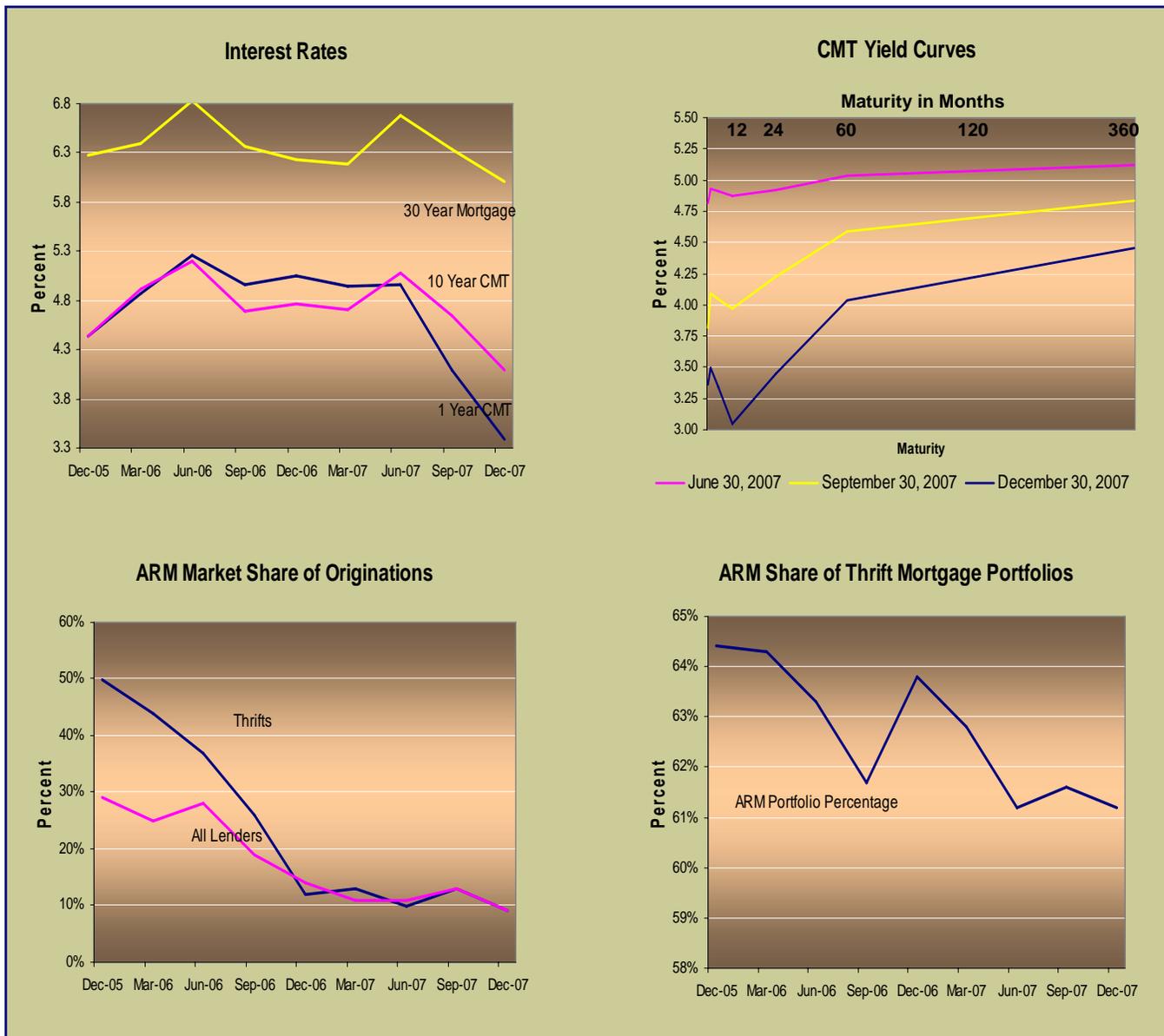
Thrifts remain focused on residential mortgage lending, with 48.9 percent of assets invested in 1-4 family mortgage loans at the end of 2007, down from 51.5 percent one year ago and down from 50.7 percent at the end of the third quarter. Of these 1-4 family mortgage loans, 7.5 percent are home equity lines of credit, up from 6.0 percent one year ago. Holdings of consumer loans decreased to 5.3 percent of assets from 5.7 percent a year ago, and multifamily mortgages decreased over the year from 4.7 percent of assets to 4.1 percent at the end of 2007. Commercial loans increased to 3.8 percent of assets at the end of the year from 3.6 percent one year ago.

Total thrift industry mortgage originations (which include multifamily and non-residential mortgages) increased to \$166.6 billion from \$134.3 billion in the fourth quarter one year ago, but were down from \$185.7 billion in the prior quarter. Fourth quarter 1-4 family mortgage originations by thrifts were \$143.9 billion, up 28 percent from \$112.1 billion in the fourth quarter one year ago, but down 13 percent from the \$165.1 billion originated in the prior quarter.

Thrifts accounted for approximately 31 percent of total 1-4 family originations nationwide in the fourth quarter of 2007, up from 16 per-

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Interest Rates and ARM Market Share



Fourth Quarter Sees Sensitivity Decline (continued)

(Continued from page 7)
 percent in the comparable year ago quarter, and up from 30 percent in the prior quarter. An estimated nine percent of thrift originations were ARMs in the fourth quarter, down from 12 percent in the comparable year ago quarter, and down from 13 percent in the prior quarter. The ARM share for all lenders was estimated at nine percent in the fourth quarter, 12 percent in

the prior quarter, and 14 percent in the fourth quarter one year ago. The ARM share of total 1-4 family mortgages held by thrifts in their portfolios based on reported CMR data was 61.2 percent in the fourth quarter, down from 61.6 percent in the prior quarter.

The volume of mortgage refinancing, as a percentage of total originations, was up from the comparable year ago quar-

ter as borrowers converted adjustable rate mortgages to fixed rate mortgages. Refinancing activity accounted for 48 percent of thrift originations in the fourth quarter, up from 39 percent in the fourth quarter one year ago, and up from 44 percent in the prior quarter.

Deposits and escrows grew by two percent over the year to \$891 billion from \$876 billion. As a percentage of total assets,

deposits and escrows decreased to 58.9 percent from 62.1 percent one year ago. Federal Home Loan Bank advances were up from 15.2 percent one year ago to 20.0 percent of total assets.

The interest rate changes that occurred during the quarter improved the interest rate risk profile of the typical thrift.

Lower interest rates typically

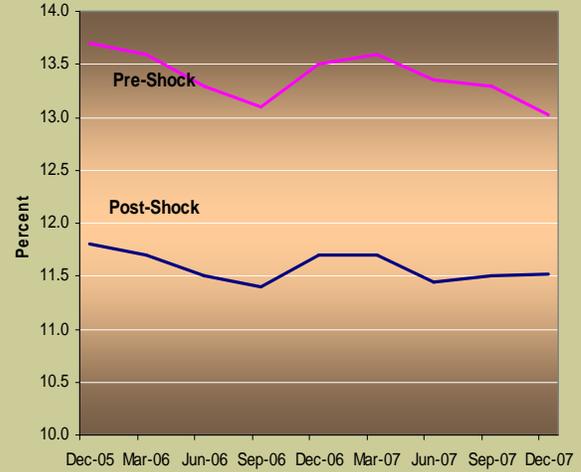
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Duration and NPV Sensitivity Measures

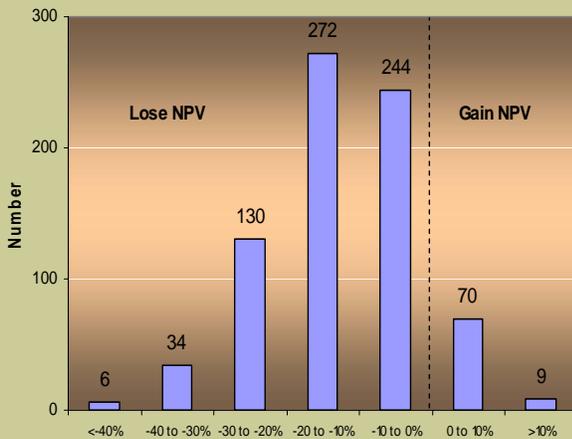
Median Effective Duration Gap



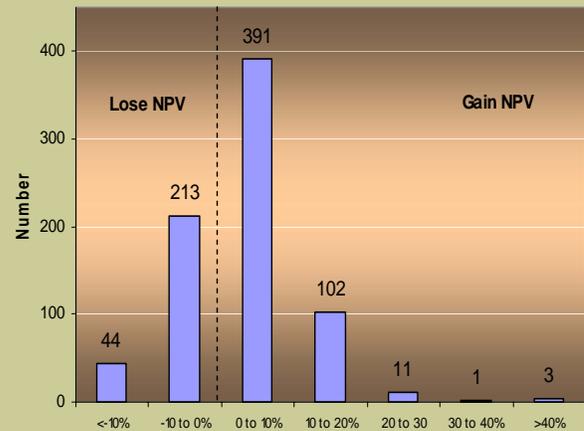
Median Pre- and Post-Shock NPV Ratios



Estimated Change in NPV: +200bp Rate Change



Estimated Change in NPV: -200bp Rate Change



Fourth Quarter Sees Sensitivity Decline (continued)

(Continued from page 8) increase the value of fixed rate mortgage loans and trigger a corresponding increase in pre-shock capital. Similarly, lower mortgage rates increased the likelihood of refinance-driven mortgage prepayments which decreased the effective duration of most fixed and adjustable rate mortgages relative to last quarter. The drop in effective

duration of assets, in turn, led to an industry wide decrease in sensitivity.

Fourth-quarter median interest rate sensitivity fell to 144 basis points, down from 166 basis points in the prior quarter. The median pre-shock Net Portfolio Value (NPV) ratio fell in the third quarter by approximately 28 basis points while the median post-shock

ratio was virtually unchanged with a rise of only one basis point. The decline in pre-shock NPV was driven by a decline in the equity capital ratio at thrifts. The number of thrifts with post-shock NPV ratios below 4.0 percent decreased from five to four institutions.

The industry's median effective duration of assets declined from 1.75 to 1.61 in

the fourth quarter. The decline in the duration of assets was caused by the decrease in interest rates, which increased estimated prepayment speeds. The fourth quarter saw the industry's median effective duration of liabilities increase from 1.21 to 1.28. The decrease in the effective duration of assets coupled with the increase in the

(Continued on page 10)

Interest Rate Risk Measures

Thrifts with Post-Shock NPV Ratios Under 4 Percent



Interest Rate Risk Measures Industry Aggregates Last Two Quarters				
	NPV as % of PV of Assets		% Change in NPV	% Change in NPV
	Sep-07	Dec-07	Sep-07	Dec-07
+300	7.93%	8.83%	-28%	-21%
+200	8.98%	9.70%	-17%	-12%
+100	9.88%	10.38%	-7%	-4%
Base	10.55%	10.76%	0%	0%
-100	10.84%	10.88%	4%	2%
-200	10.92%	10.80%	5%	2%

Post-Shock NPV Ratio and Sensitivity Measure Matrix December 2007

	Under 100bp	101-200bp	201-400bp	Over 400bp	Total
Over 10%	188	174	141	11	514
6% to 10%	54	90	84	4	232
4% to 6%	4	5	5	1	15
Below 4%	0	1	2	1	4
Total	246	270	232	17	765

Minimal
 Moderate
 Significant
 High

Post-Shock NPV Ratio and Sensitivity Measure Matrix September 2007

	Under 100bp	101-200bp	201-400bp	Over 400bp	Total
Over 10%	175	158	163	19	515
6% to 10%	32	87	102	10	231
4% to 6%	3	3	11	3	20
Below 4%	0	1	2	2	5
Total	210	249	278	34	771

Minimal
 Moderate
 Significant
 High

Fourth Quarter Sees Sensitivity Decline (continued)

(Continued from page 9)
duration of liabilities resulted in a decrease in the duration gap for the thrift industry in the third quarter from 0.54 to 0.33.

Of the thrifts that submitted Schedule CMR data in the fourth quarter, the NPV model estimated that about 90 percent would experience a loss of net portfolio value if rates rose by 200 basis points and approxi-

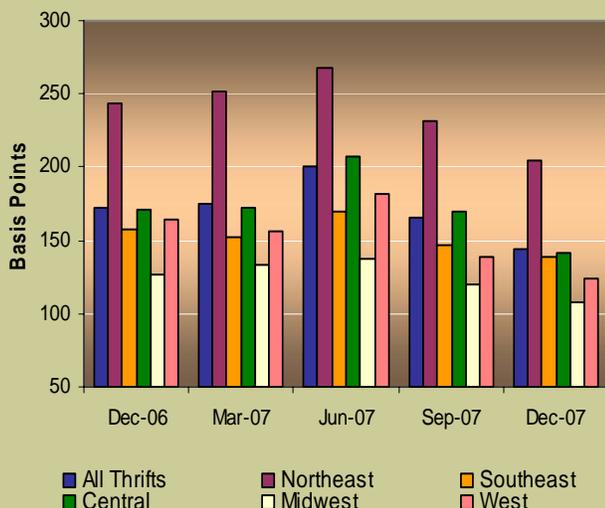
mately 66 percent of thrifts would experience an increase in net portfolio value should rates fall 200 basis points. The NPV model estimated that the thrift industry would lose 12 percent of its net portfolio value if rates rose by 200 basis points in the fourth quarter, and the industry would gain two percent if rates fell by 200 basis points.

Based on TB 13a guidance for the “S” rating for those institutions that submitted scheduled CMR, 651 thrifts (85.1 percent) initially would be assigned a minimal interest rate risk rating, 100 thrifts (13.1 percent) a moderate rating, 10 thrifts (1.3 percent) a significant rating, and 4 thrifts (0.5 percent) a high rating in the fourth quarter. The number of

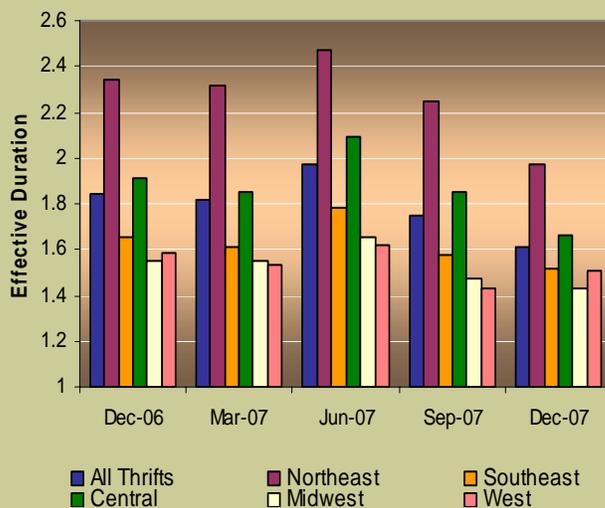
thrifts with significant or high interest rate declined from 29 in the third quarter to 14 in the fourth quarter. ■

Comparative Trends in the Five OTS Regions

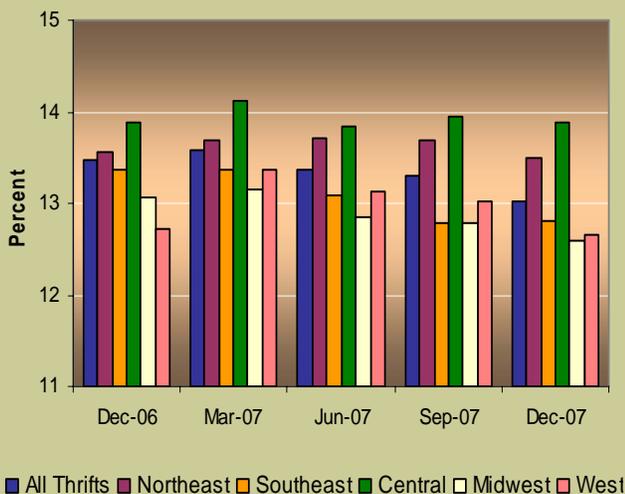
Median Sensitivity by OTS Region



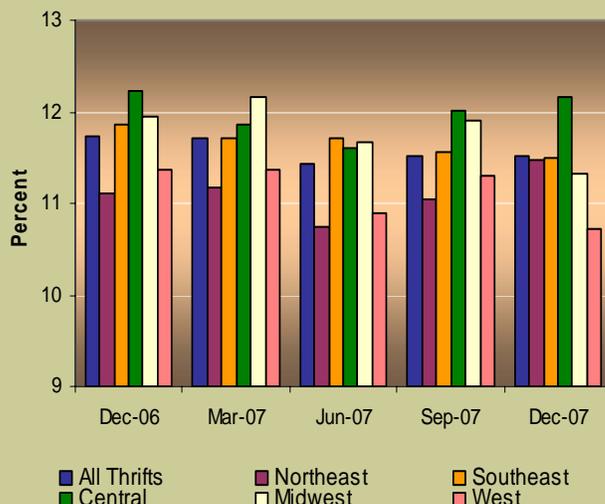
Median Assets Duration by OTS Region



Median Pre-Shock NPV Ratio by OTS Region



Median Post-Shock NPV Ratio by OTS Region



Regional Comparisons

At the end of the fourth quarter, the Northeast Region had the highest median sensitivity at 204 basis points, while the Midwest Region had the lowest median sensitivity at 107 basis points.

All five regions saw their median sensitivities fall, with the Central Region’s sensitiv-

ity falling the most (28 basis points) and the Southeast Region’s sensitivity falling the least (eight basis points).

The Central Region had the highest median pre-shock NPV ratio at 13.88 percent. The Midwest Regions had the lowest pre-shock NPV ratio at 12.58%.

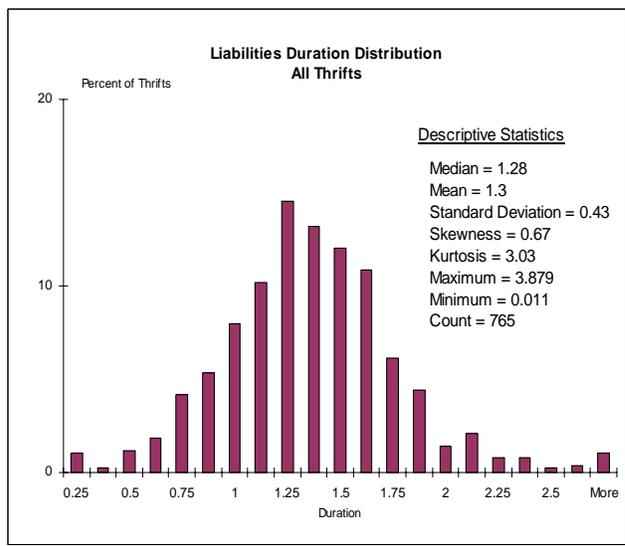
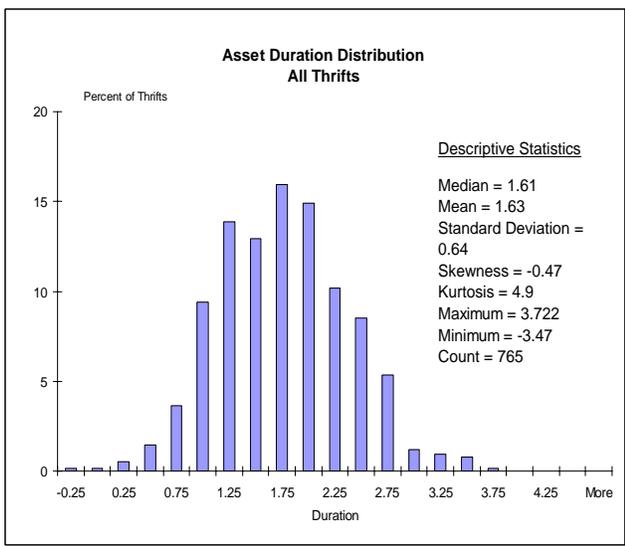
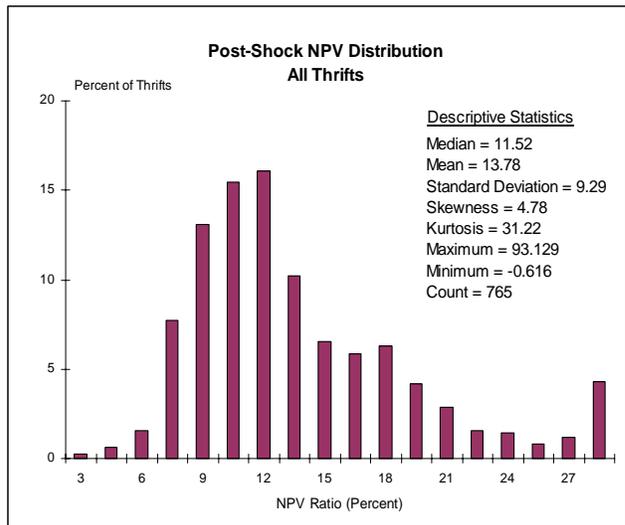
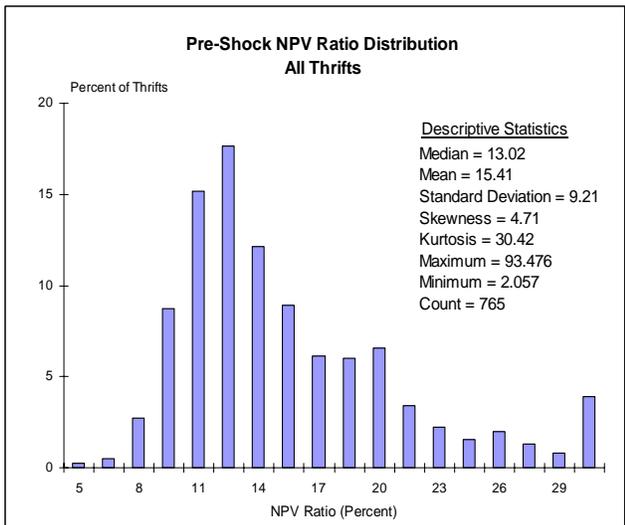
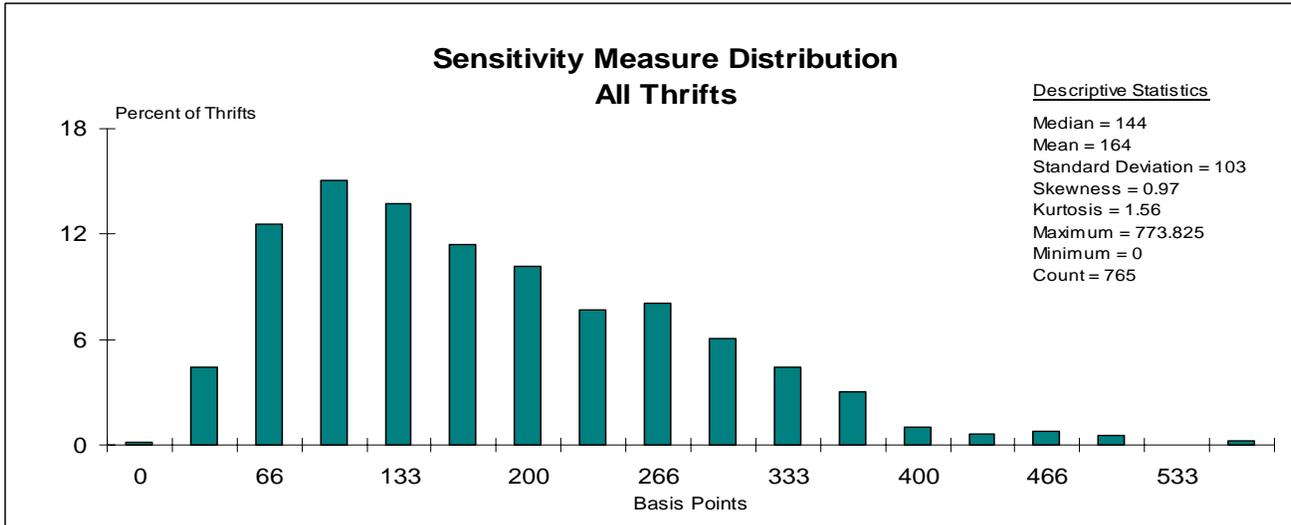
The Central Region also had the highest median post-shock NPV ratio, at 12.17 percent, while the West Region had the lowest, at 10.71 percent.

The Northeast Region had the highest median asset duration, at 1.97, while the Midwest Region had the low-

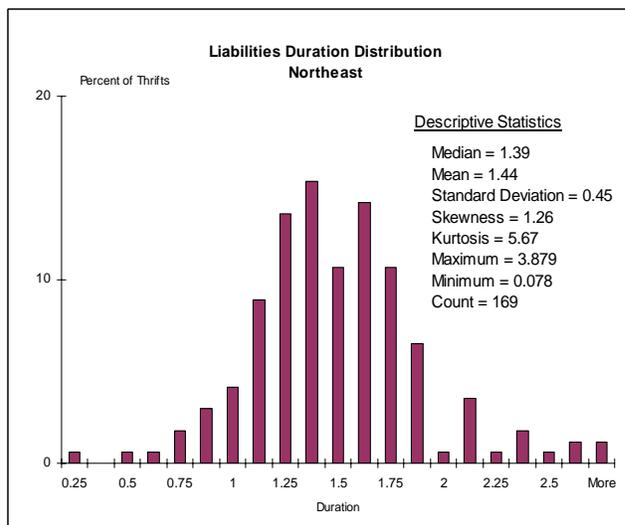
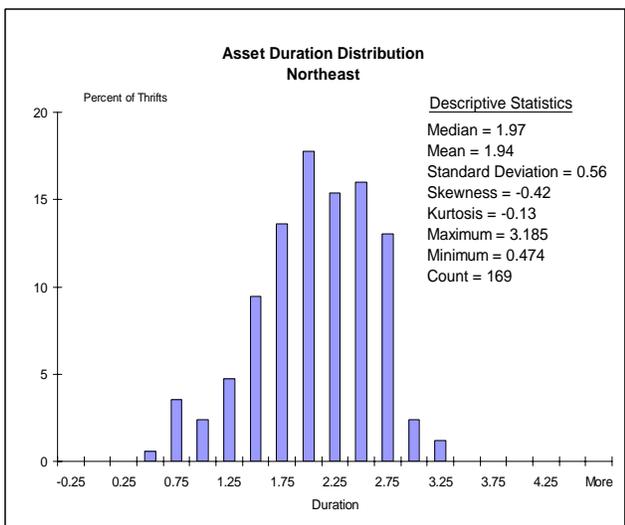
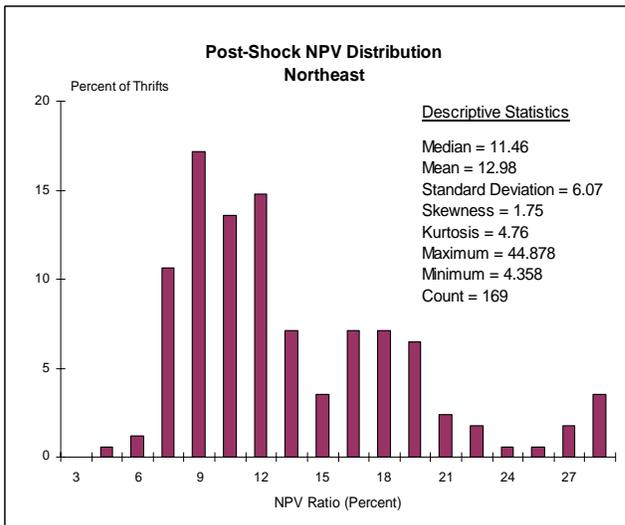
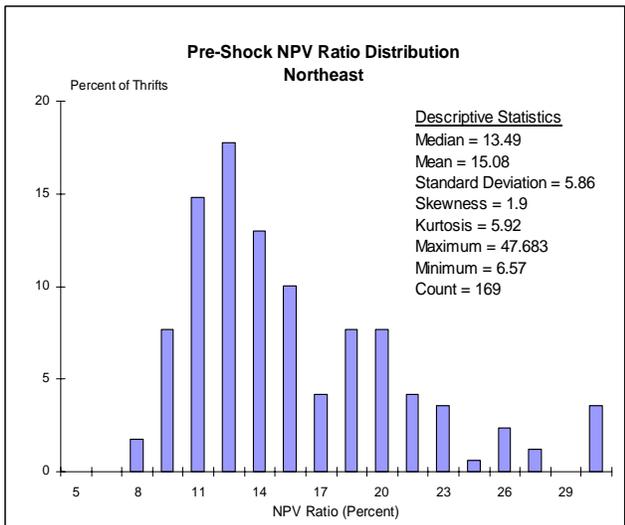
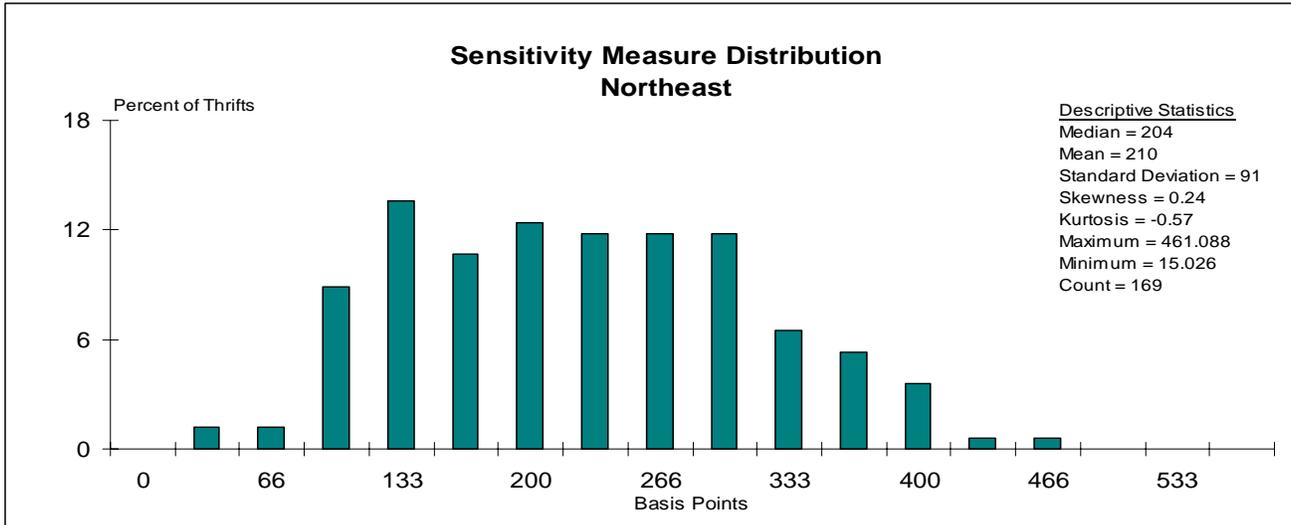
est, at 1.43, at quarter end.

The Southeast Region had the lowest median liability duration, at 1.13, while the Northeast Region had the highest, at 1.39. ■

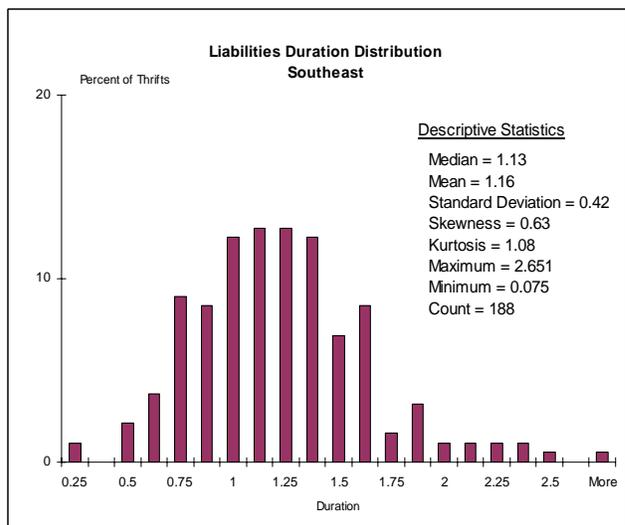
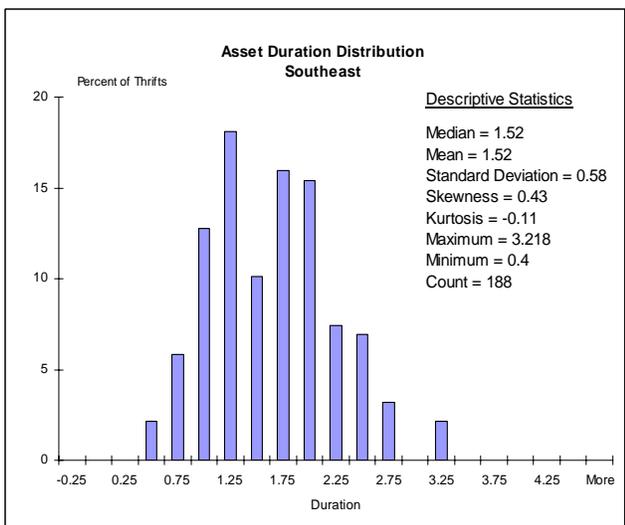
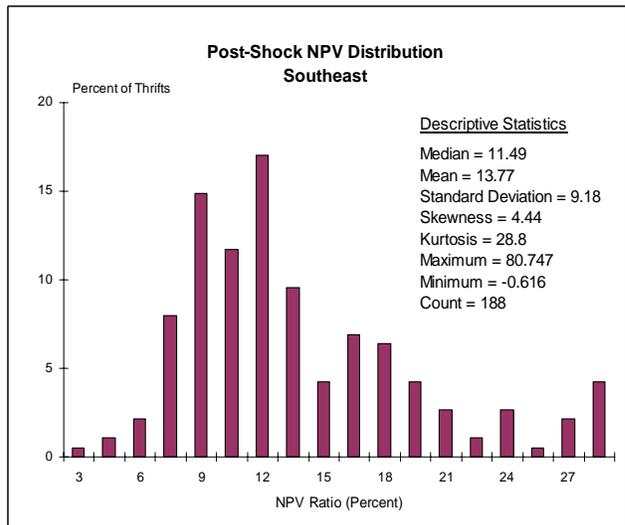
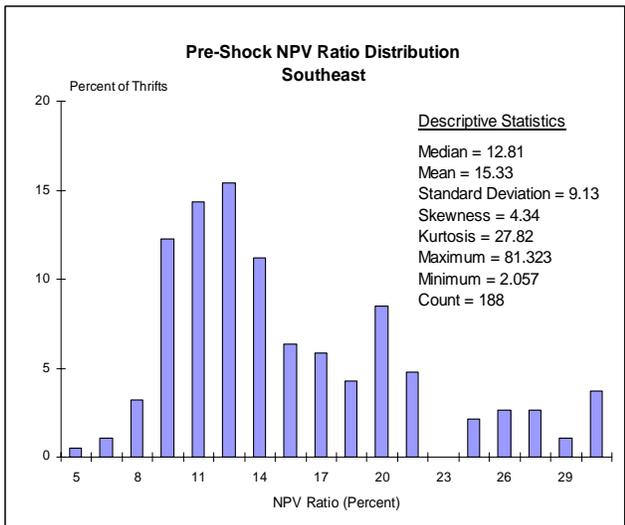
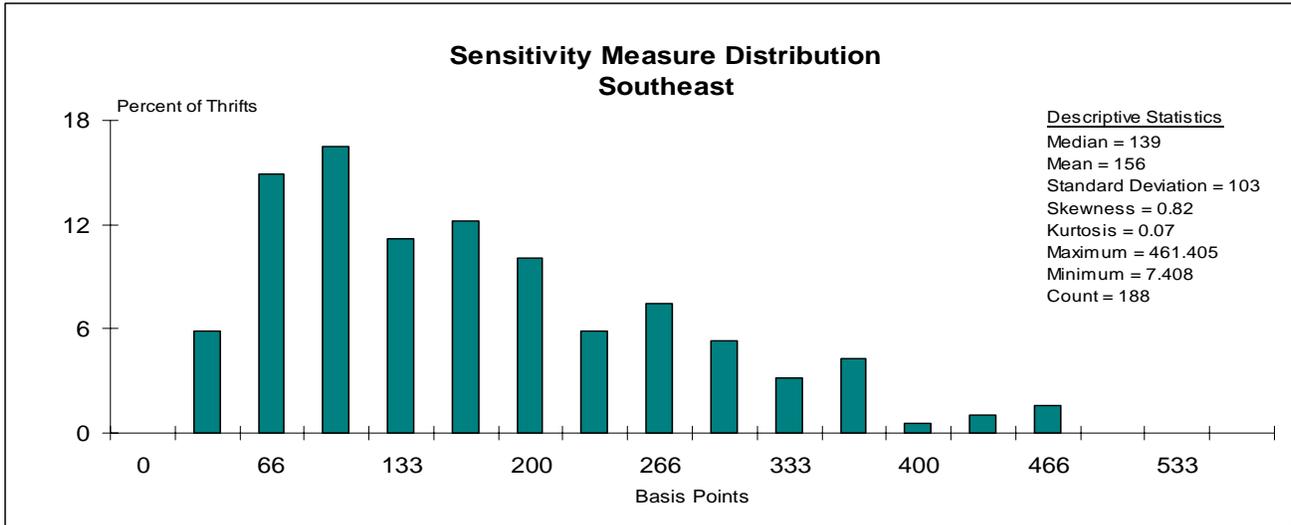
Appendix A – All Thrifts



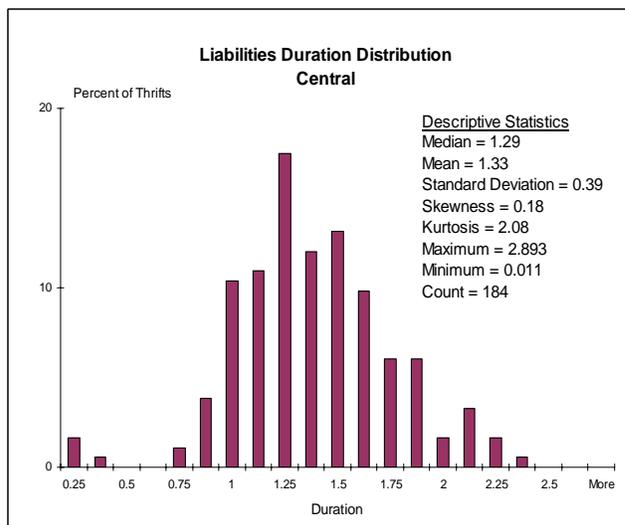
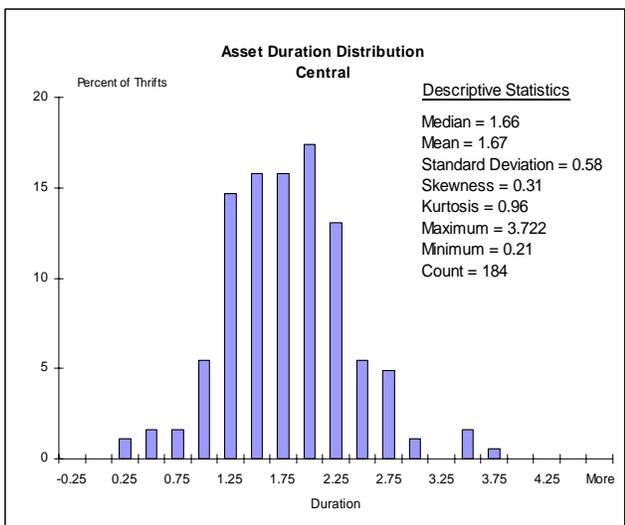
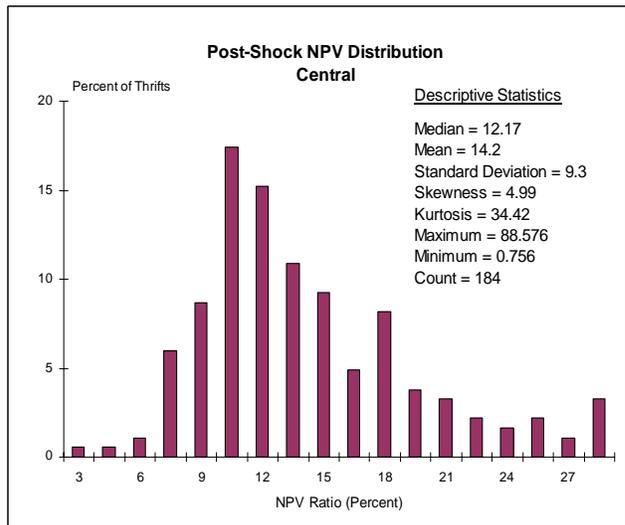
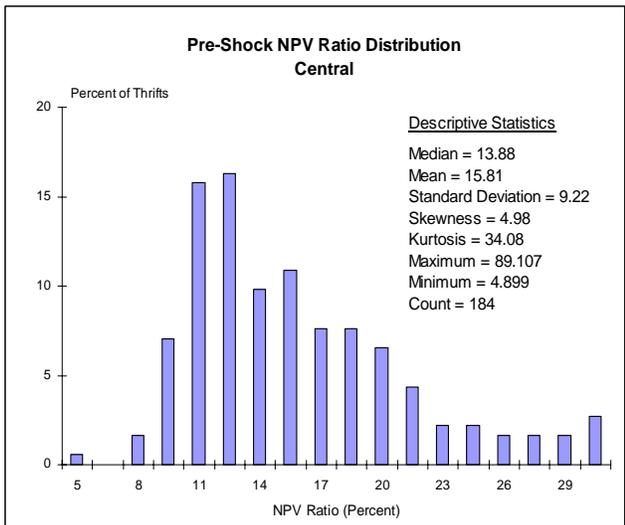
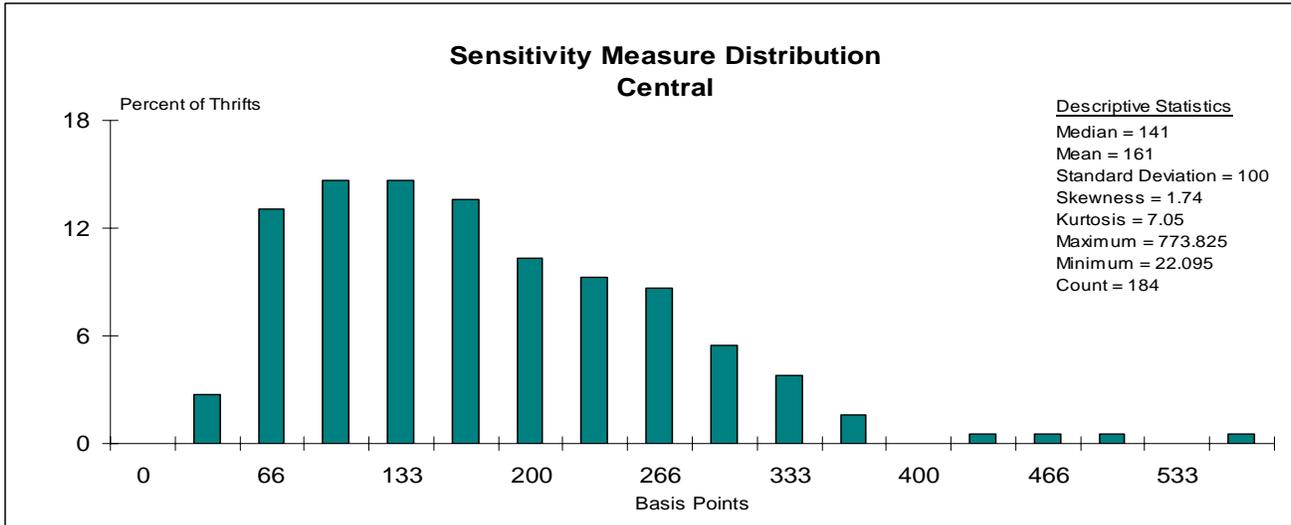
Appendix B – Northeast Region



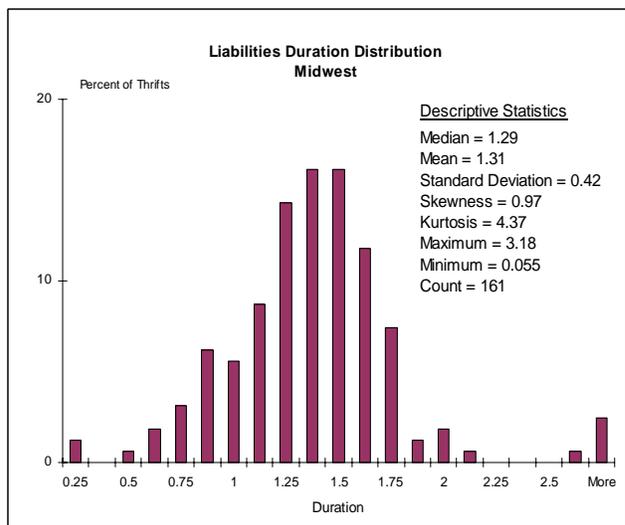
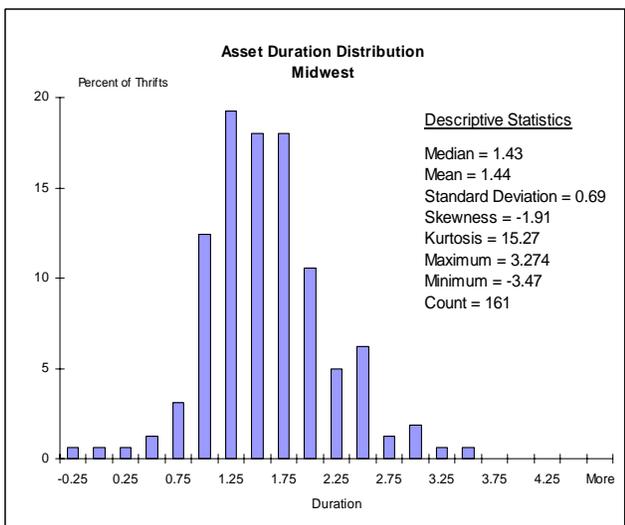
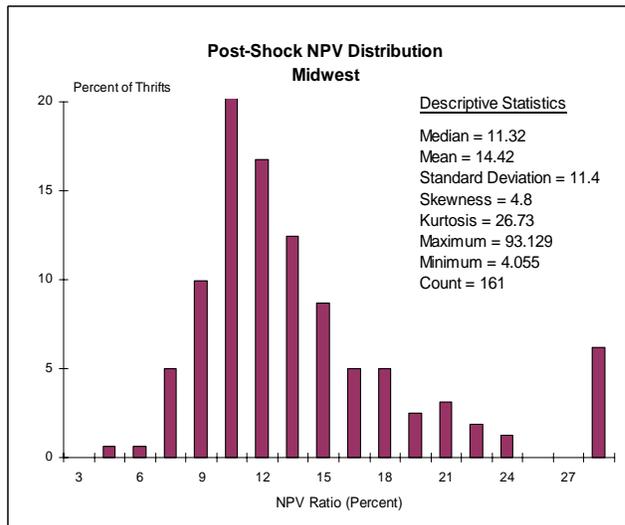
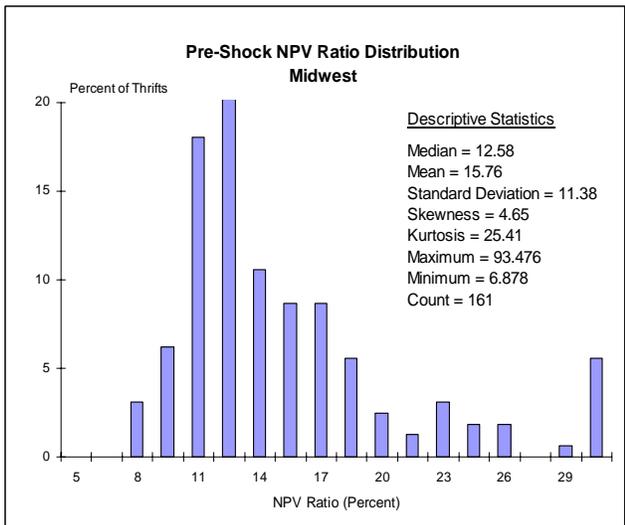
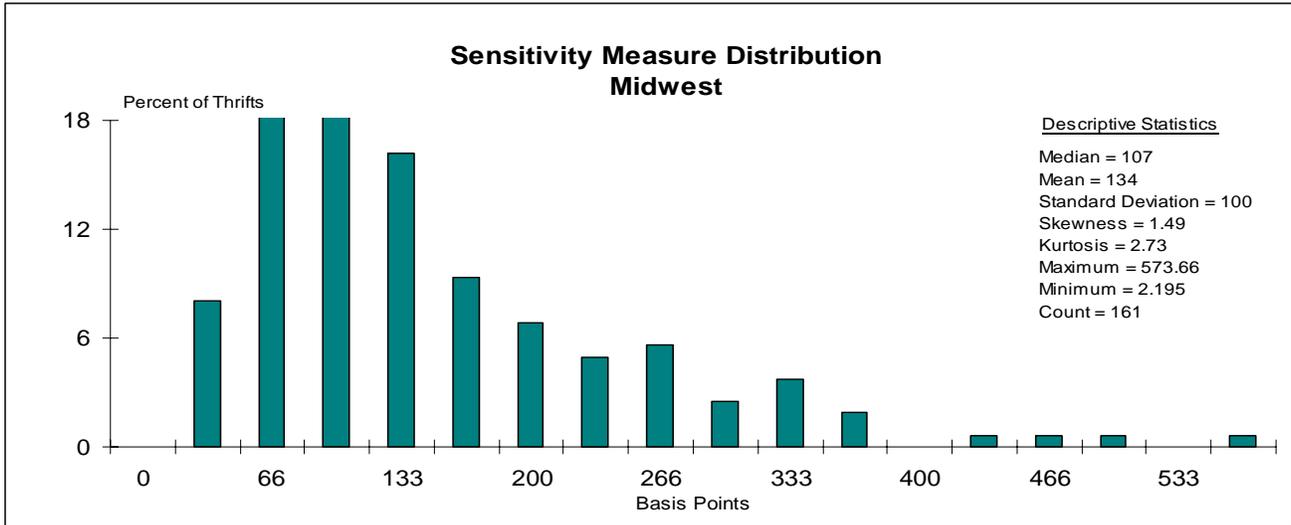
Appendix C – Southeast Region



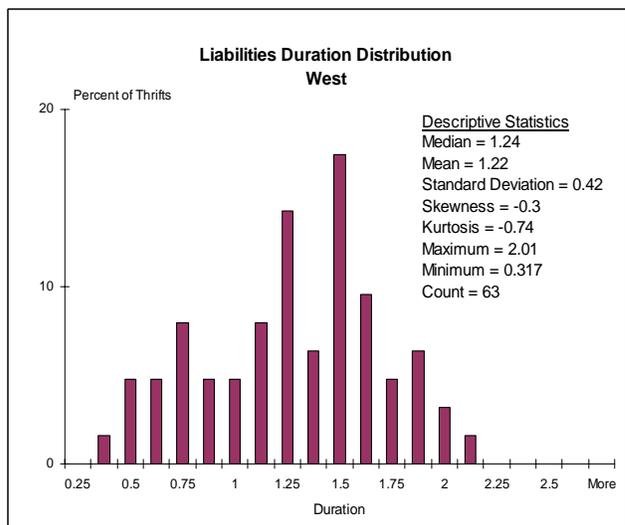
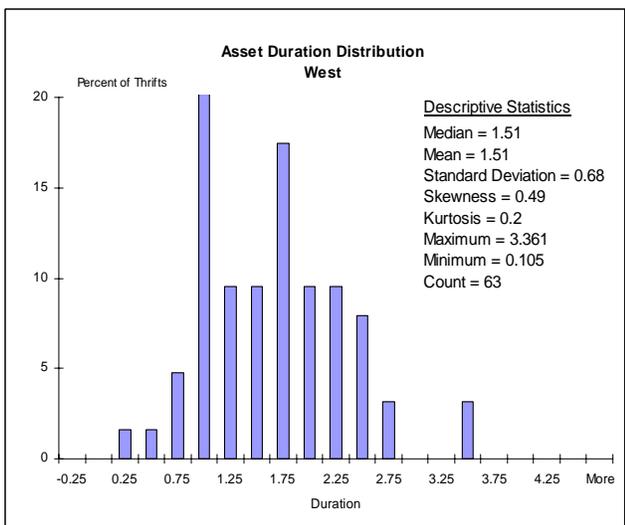
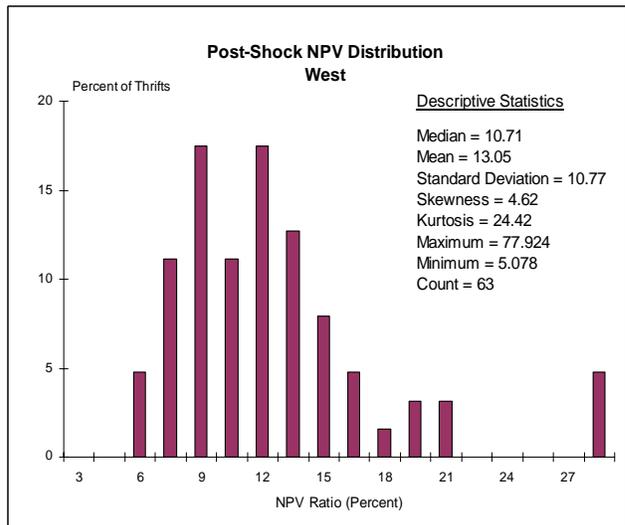
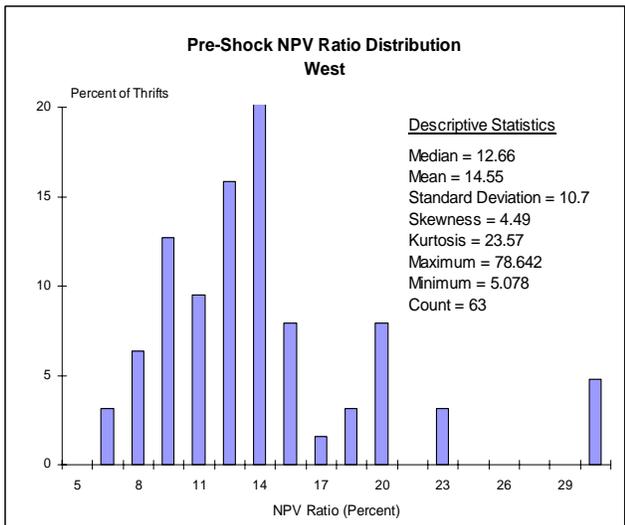
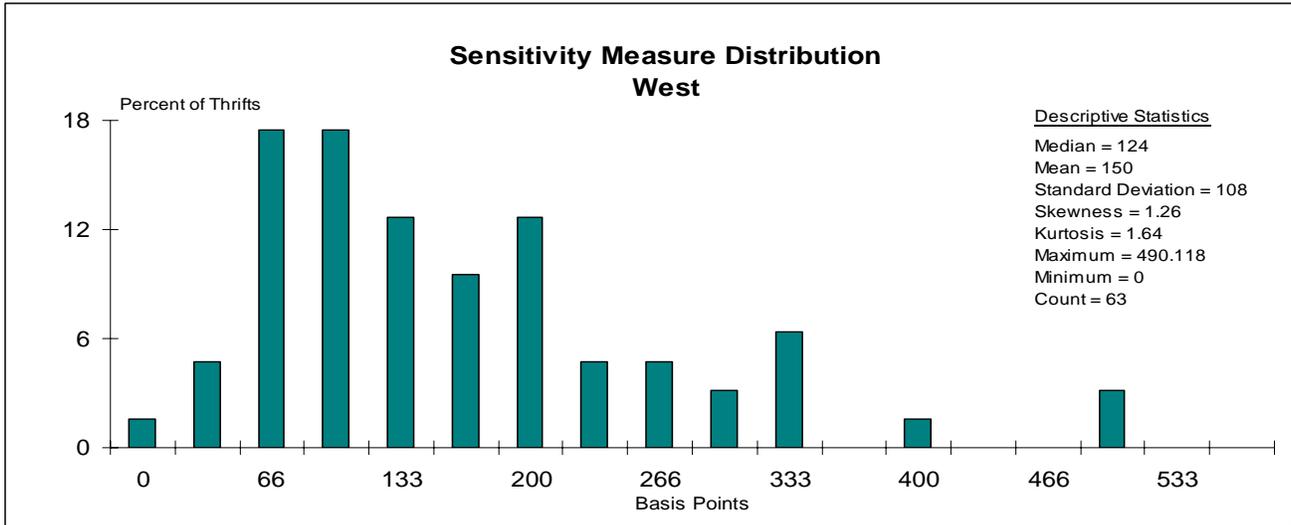
Appendix D – Central Region



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).

Risk Modeling and Analysis Division

Scott Ciardi

Director
Phone: 202-906-6960
Email: scott.ciardi@ots.treas.gov

Tom Day

Senior Capital Markets Specialist
Phone: 202-906-7933
Email: tom.day@ots.treas.gov

Andrew Carayiannis

Financial Analyst
Phone: 202-906-6919
Email: andrew.carayiannis@ots.treas.gov

Jeff Adams

Capital Markets Specialist
Phone: 202-906-6388
Email: jeff.adams@ots.treas.gov

Thomas Wilderman

Capital Markets Specialist
Phone: 202-906-6973
Email: thomas.wilderman@ots.treas.gov

Haranath Chadive

I T Specialist, NPV Model
Phone: 202-906-6898
Email: haranath.chadive@ots.treas.gov

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