



Insights

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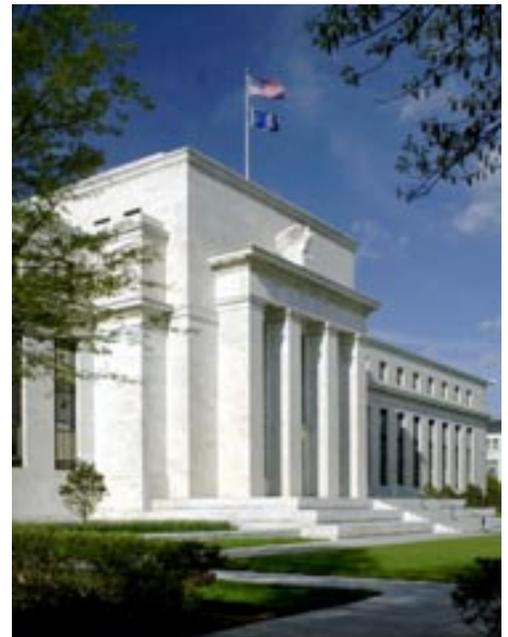
SVP Commentary on...

Trends in Enforcement Activity

Federal and state banking supervisors use enforcement actions to compel financial institution management and institution-affiliated parties to (i) restore financial institutions to a safe and sound condition, (ii) address weaknesses before they become pronounced, and/or (iii) comply with consumer and safety and soundness laws, regulations, and standards. The severity of the risk to the financial institution, the banking public, the insurance fund, and the monetary system all factor into the decision whether and to what extent to use the enforcement process.

Typically, enforcement actions are imposed as a result of findings during an on-site full scope or targeted examination or inspection. Formal enforcement actions may also be imposed when a Reserve Bank becomes aware of a problem at a bank

that warrants immediate attention and correction. For example, problems can be detected through analysis of off-site surveillance information, such as data reported in the institution's regulatory filings or information filed in Suspicious Activity Reports (SARs).



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Basel II: The Impact on Competition in the U.S. Financial Services Industry

by Cynthia L. Course, CPA, Sr. Financial Specialist

On May 11, 2004, the Basel Committee on Banking Supervision announced that it had reached consensus on the issues regarding the new international regulatory standards for bank capital.¹ These proposed revisions are commonly referred to as Basel II. As work proceeded on the international front, the U.S. banking agencies continued to refine their approach to apply any revisions to the Basel Accord to U.S. banking organizations.

In an Advance Notice of Proposed Rulemaking issued in August, 2003, the U.S. banking agencies proposed that only the most advanced approaches under Basel II be offered for banking organizations in the United States: the advanced internal ratings-based approach for credit risk (A-IRB) and the advanced measurement approach for operational risk (AMA). As proposed, U.S. banking organizations with total banking (and thrift) assets of at least \$250 billion or at least \$10 billion in on-balance-sheet foreign exposures—about 10 large organizations based on current balance sheets—would be required to adopt the advanced approaches. However, other banking organizations could choose to adopt A-IRB. Organiza-

tions might choose to adopt A-IRB if they expect to grow into the size requirements, if the perceived benefits of the net change in capital requirements exceed the expected costs of adjusting risk management systems to conform with A-IRB requirements, or for other reasons. Any organization wishing to adopt Basel II would have to meet the same high standards applied to mandatory institutions.

The remaining U.S. banking organizations, which number in the thousands, have generally strong capital and straightforward balance sheets. For many of those institutions, the advanced approach of Basel II would be unnecessarily complex and not cost effective. Accordingly, the U.S. banking agencies have proposed that banks not operating under Basel II advanced approaches would remain under the current U.S. regulatory capital rules.

In response to expressed concerns about possible unintended effects of Basel II, the U.S. agencies have undertaken economic studies of the potential competitive effects of Basel II on U.S. banks. Board staff have already issued studies that analyze the competitive effects on lending to small and medium enterprises and the potential effect of Basel II on mergers and acquisitions. Future studies will address the potential competitive effects on credit card and mortgage lending.

¹ The press release is available on the Bank for International Settlements' web site at <www.bis.org/press/p040511.htm>.

Chairman Greenspan Speaks*

... The comments received from some of you indicated a concern that perhaps the lower regulatory capital that some large banks may incur under Basel II on some portfolios may distort the competitive balance between adopters and non-adopters of the proposed new accord. The banking agencies and the Congress take such risks seriously. Indeed, we have indicated that if we see evidence supporting competitive distortions, we will make the necessary modifications to blunt them by doing one of the following: changing Basel II rules in the United States, where national discretion is allowed; modifying the proposed U.S. bifurcated application; or changing the capital rules that apply to non-adopters. In short, if we have evidence of a potential competitive problem, we will not be precluded from proposing any measure that we believe is necessary to retain a more level playing field...

* Excerpted from remarks by Federal Reserve Chairman Alan Greenspan before the Independent Community Bankers of America Convention, San Diego, California (via satellite), March 17, 2004. The full text is available at <www.federalreserve.gov/boarddocs/speeches/2004/20040317/default.htm>.

Small and Medium Enterprise Lending

Community and regional banks are concerned that the reduction in the implicit risk weight for small and medium enterprise (SME) credits (i.e., small business loans) extended by A-IRB adopters might adversely affect the competitive position of banks that remain subject to current capital rules.

The SME credit capital requirements under the A-IRB approaches could theoretically adversely affect the competitive position of community banks or other large banking organizations that do not adopt A-IRB because it may reduce minimum regulatory capital and potentially lower the marginal costs of SME lending for A-IRB adopters. Some analysts and industry participants have argued that the decline in marginal costs at A-IRB banks relative to non-A-IRB banks might encourage A-IRB banks to reduce their pricing on and/or increase their quantity of SME lending, causing a trickle down effect of lower pricing and/or reduced market share for community and regional banks.

In February 2004, Board staff issued a paper titled *Potential Competitive Effects of Basel II on Banks in SME Credit Markets in the United States*.² Board staff concluded that the substitution effect of a decline in marginal costs of SME lending by banking organizations that adopt the A-IRB approach

² *Potential Competitive Effects of Basel II on Banks in SME Credit Markets in the United States*, by Allen N. Berger, is available on the Board of Governors' web site at <www.federalreserve.gov/Pubs/FEDS/2004/200412/200412abs.html>.

Capital Treatment of SMEs*

Today: Under the current Basel Capital Accord, loans to small businesses (i.e., SMEs) generally fall in the 100 percent risk-weight category.

Tomorrow?: In an Advance Notice of Proposed Rulemaking, the U.S. agencies have requested comment on a proposed \$1 million threshold that would separate those SME exposures that banking organizations should be allowed to treat on a pooled basis under the retail A-IRB framework and those SME exposures that should be rated individually and treated under the wholesale A-IRB framework.

Regardless of retail or wholesale treatment, A-IRB organizations would be required to determine the probability of default (PD), loss given default (LGD), and exposure at default (EAD) for SMEs, whether in pools (retail treatment) or individually (wholesale treatment). This would result in a capital treatment that could be less than or greater than Basel I capital, depending on the quality of the credit.

* See the August 4, 2003 Press Release and attached Advance Notice of Proposed Rulemaking on the Board of Governors' web site at <www.federalreserve.gov/BoardDocs/Press/bcreg/2003/20030804/default.htm>.

is likely to have a relatively minor competitive effect on the majority of community banks in the SME lending market. Although a marginal cost decline is likely to encourage A-IRB banks to reduce price and/or increase quantity of SME lending, thereby reducing the prices received by and/or market shares of community banks, the analysis in the paper suggests that this substitution effect is likely to be rather modest in most cases. A key factor with regard to the competitive effects on community banks appears to be the comparative disadvantage of large banking organizations in making relationship loans to informationally opaque SMEs, the primary recipients of small business loans from community banks. Community banks tend to have comparative advantages in such small business "relationship lending," and the paper finds that their market share and pricing should not be significantly adversely affected.

However, the analysis also suggests the possibility that the implementation of Basel II might adversely affect the competitive position in the small business credit market of large banking organizations that do not adopt A-IRB. Relatively large banking organizations tend to have comparative advantages in transactions loans to relatively transparent SMEs, and the A-IRB adopters already serving this market might be able to serve it at a lower marginal cost in the future. Non-adopters could experience pricing pressures and/or reductions in market share in loans to transparent SMEs.

Merger and Acquisition Activity

Concerns have also been raised that the excess regulatory capital at A-IRB

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Management's Understanding of IRR Models

by Avi Peled, Senior Financial Specialist

Banking at its core involves understanding, pricing, and mitigating a wide variety of risks. One risk—interest rate risk—involves the estimation of the probability of adverse effects on asset or liability valuations caused by movements in interest rates. A banker must consider the affect of interest rate movements and volatility when

risks. For community banks, examiners are particularly interested in the bank's ability to accurately model interest rate risks. Of perhaps equal importance is the ability of bank management, the ALCO committee, and the Board of Directors to understand the output of the model and the model's limitations. Finally, examiners

To capture these changes, some gap reports are dynamic and reflect these cash flow changes, depending on the assumed changes in interest rates.

Earning simulations for the banking book, sometimes called **Earning at Risk** (EaR) models, are most often used to estimate net interest income in the one and two year time frame. EaR models are often popular with banks because they can provide an estimate of net interest income or other income measures over a one or two year horizon.

Modeling can help bank management make more informed decisions about the level of interest rate risk the institution is willing to assume.

building the bank's balance sheet by adjusting the duration and liquidity of various segments of the balance sheet. Modeling can help bank management make more informed decisions about the level of interest rate risk the institution is willing to assume.

We all use models for many purposes. In general, models allow us to view or estimate what something will look like in the future, whether an architect's model of a bank building or an econometrician's model of the economy. Bankers use models to attempt to describe in mathematical or accounting terms, often using equations (either explicitly or implicitly), a condition of their bank in the future.

Capital markets examiners examine bank models of market and trading

ers are interested in seeing how bank management acts on the results of the model and how models are integrated into the strategic planning process of the institution.

Interest Rate Risk Models

In community banks, examiners generally see three types of interest rate risk models. **Gap analysis**, which diagrams projected cash flows into maturity/repricing buckets, gives an elementary view of interest rate risk. This can nevertheless provide useful information, especially for non-complex institutions with limited long-term instruments and limited items with embedded options. Gap analysis usually emphasizes maturities while often failing to consider embedded options. The cash flows of assets and liabilities with options can change when interest rates change.

Economic Value of Equity (EVE) models (often called Market Value of Equity, MVE, or other names) are used to estimate the economic value of a banking organization.¹ Economic value is the value of the discounted cash flows of assets minus liabilities, adjusted for flows created by off balance sheet items. EaR and EVE type models can be shocked to estimate the effect of interest rate changes on the bank's future income and economic value. Usually parallel yield curve shifts are modeled in the +/- 100, 200, and 300 basis point ranges, although other magnitude movements can also be modeled. Interest rate movements can also be ramped as change occurs over time. Non-parallel yield curve changes can also be modeled to pres-

¹ Bankers sometimes mistakenly believe that EVE measures liquidation value. Actually, EVE models the earnings potential of the entire balance sheet, adjusted for options and off balance sheet items.

ent a more realistic view of possible interest rate changes.

While interest rate risk models can be used for various purposes, including liquidity planning, budgeting, and strategic planning, examiners are mainly interested in the models as tools for market and liquidity risk assessment.

Types of Risks

There are four basic types of risk that an interest rate risk model should address—Mismatch, Yield Curve, Basis, and Options risks. **Mismatch risk** is the risk that assets and liabilities will reprice at different times and at different rates when interest rates change. While most banks model +/- 100, 200, and 300 basis point parallel changes in interest rates, it is highly unlikely that the yield curve will move precisely in parallel. Risk that stems from a change in the shape of the curve is referred to as **yield curve risk**. EaR and EVE will be affected if short-term rates move more or less than long-term rates or if the yield curve steepens or flattens, and intermediate term rates would be more or less affected when interest rates change. Factors such as these are incorporated in yield curve risk. **Basis risk** is the risk that rates on instruments with the same or similar maturities will not move in tandem when the general level of interest rates changes. **Options risk** is the risk that option holders will exercise the options implicitly or explicitly sold to them by the bank as interest rate changes make it advantageous for them to do so.

Model Construction and Inputs

A model's reflection of reality depends on how well it is constructed. Model construction involves a variety of elements, including choosing the correct

variables and affirming the accuracy of the model's inputs. Management's confidence in the accuracy of the model will depend on how confident management is in its construction and the data used for inputs.

A model should be sufficiently detailed to include information on all material interest rate risks. Accounts should be combined if they will react fairly similarly to interest rate changes. However, significant accounts whose reactions to interest rate changes are not well correlated should not be aggregated but should be segregated into more specific types so that the model can capture those disparate affects.

The terms of financial instruments need to be accurately captured in a model, particularly embedded or explicit options such as calls, puts, caps, and floors. Properly reflecting the effect of embedded options for assets such as adjustable rate mortgages, which appear on many financial institutions' balance sheets, is particularly important.

**All models
are wrong;
some are useful.**
George E. P. Box

Verifying model inputs is also important. Inputs should be checked to ensure that they appear reasonable and that they are entered into the model correctly. Automated data entry is preferred since it minimizes the likelihood of data input errors.

Non-maturity deposits and items with embedded options are difficult to measure. Banks have devised various methods to arrive at non-maturity deposits assumptions, ranging from estimates by line officers to sophisticated models based on data of a sampling of accounts in each deposit type spanning at least a full economic cycle.

Model Results

As noted above, the value of a model's output depends on how well the model is constructed and the accuracy of the inputs. In addition, management needs to understand how the model works and what elements go into producing its results to be able to meaningfully interpret the output.

Typical model output includes a set of numbers representing the bank's EaR or EVE under different interest rate scenarios. However, it is extremely unlikely that a specific number is 100 percent correct. Rather, if the model was properly constructed and the inputs were valid, the results should be accurate enough that management can base their IRR strategy on the results.

Bankers, especially ALCO and the Board of Directors, can take several steps to improve their understanding of the bank's model and the institution's interest rate risk.

- Understand the quality of the assumptions used in the interest rate models and how the models' results could vary if assumptions were incorrect. Carefully documenting all assumptions and controlling changes to those

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Know Your Customer: It's Not Just a Good Idea, It's the Law!

by Cynthia L. Course, CPA, Sr. Financial Specialist

In response to the events of September 11, 2001, President George W. Bush signed into law on October 26, 2001 H.R. 3162, *Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act of 2001*. As we all know now, the short name of this legislation is the USA PATRIOT Act (the Act). The PATRIOT Act established new and enhanced measures to prevent, detect, and prosecute money laundering and terrorism. One of the more important measures for financial institutions was addressed in section 326—Verification of Identification—more commonly referred to as “Know Your Customer.”

On April 30, 2003, the Financial Crimes Enforcement Network (FinCEN), the Office of the Comptroller of the Currency, the Board of Governors of the Federal Reserve System, the Federal Deposit Insurance Corporation, the Office of Thrift Supervision, and the National Credit Union Administration (collectively, the Agencies) issued final regulations implementing section 326, and compliance became mandatory on October 1, 2003.¹ The Federal Reserve System modified both Regulation H, *Membership of State Banking*

Institutions in the Federal Reserve System, and Regulation K, International Banking Operations, to reflect the new requirements.

Section 326 of the PATRIOT Act requires each financial institution—including banks, savings associations, and credit unions—to have a Customer Identification Program (CIP) that describes processes the financial institution will follow to (i) verify the identity of new accountholders, (ii) ensure that the institution has a reasonable belief that it knows each customer's identity, and (iii) compare the names of new customers against government lists of known or suspected terrorists or terrorist organizations. In general, when a customer opens a new account, the CIP should require the actions listed in Exhibit 1.

Section 326 Compliance in the Third District

Judging by the findings of Federal Reserve Bank of Philadelphia examiners who are testing for Bank Secrecy Act/Anti-Money Laundering compliance, banks in the Third District are generally adequate in complying with the provisions of section 326. This is because “knowing your customer” is a sound business practice and most financial institutions already had sound processes in

Exhibit 1.

New Account Activities for Other Than Existing Customers

Provide a disclosure of the identification requirements for opening a new account

Obtain customer identification, including:

- Full Name
- Physical residential or business street address (not a P. O. Box)
- Identifying number (i.e., Social Security Number or Taxpayer Identification Number)
- Date of birth

Verify identity, using documentary or non-documentary sources

Check a government list for customer's name

- Office of Foreign Assets Control (OFAC) list*
- Separate list of known or suspected terrorists or terrorist organizations, as designated by the federal banking regulators (this list has not yet been identified)

Retain records of the process while the account is open and for five years after the account is closed

*As if the date of this writing, the OFAC list had not been designated for the CIP rule. However, banks are obligated to check this list in accordance with OFAC regulations.

¹ The press release and attached final rule are available on the Board of Governors' web site at <www.federalreserve.gov/boarddocs/press/bcreg/2003/200304302/default.htm>.

place to ensure that they knew their customers. However, as with any new law, examiners are receiving questions about specific application of some of the CIP requirements. For example, some bankers have questioned how the rules relate to bank products such as prepaid funeral accounts, Christmas clubs, and vacation clubs. Others have questioned when it is appropriate to use non-documentary identification verification methods.

Prepaid Accounts and “Clubs.” The definition of an account for purposes of section 326 includes “... a formal banking relationship established to provide or engage in services, dealings, or other financial transactions including a deposit account, a transaction or asset account, a credit account, or other extension of credit. Account also includes a relationship established to provide a safety deposit box or other safekeeping services, or cash management, custodian, and trust services.”² Prepaid funeral accounts, Christmas clubs, and vacation clubs clearly fall within this definition. However, if a customer has an existing account with the bank and the bank has a reasonable belief that it knows the true identity of the person, then the prepaid or club account opening is not subject to the customer identification provisions of the regulation.

Non-documentary Identification. When it is not possible to obtain sufficient documentary identification, the bank must satisfy itself of the customer’s identity using non-documentary means. This might occur when (i) an individual is unable to present an unexpired government-

issued identification document that bears a photograph or similar safeguard; (ii) the bank is not familiar with the documents presented (i.e., an out-of-state driver’s license); (iii) the customer opens the account without appearing in person at the bank; or (iv) other circumstances increase the risk that the bank will be unable to verify the true identity of a customer through documents.

The CIP regulation is not as prescriptive as some institutions might have desired, and provides flexibility for each institution to customize a CIP appropriate for its specific operations. The use of non-documentary evidence is one area where this flexibility comes into play.

The bank’s CIP must contain procedures that describe the non-documentary processes that the bank will use to verify a customer’s identity. This could include (i) comparing information provided by the customer with information obtained from a consumer reporting agency, public database, or other source; (ii) checking references with other financial institutions; (iii) obtaining a financial statement or tax return; (iv) personally visiting the customer’s business; (v) a follow-up phone call after the account has been opened; (vi) analyzing consistency between and among the identifying information provided; or (vii) other means that the institution deems appropriate.

The bank’s CIP should also include procedures for responding to circumstances in which the bank cannot form a reasonable belief that it knows the true identity of a customer.

Ultimately, it is up to each institution to implement processes and require

appropriate identification to ensure the identity of each customer.

Reference Sources

To assist banks in complying with the provisions of section 326, the Agencies issued *Frequently Asked Questions Relating to Customer Identification Program Rules Issued Pursuant to the USA PATRIOT Act* in January 2004.³ This document includes guidance on the definitions of account, bank, and customer; information requirements; customer verification; required records; retention of records; the section 326 list of terrorists; customer notices; and reliance on other financial institutions.

The final rule issued in April 2003 also provides a significant amount of guidance in many of these areas.⁴ The Agencies explain the rationale for many of their decisions in the section-by-section analysis that starts on page 11 of the final rule.

If you have any questions on the application of section 326 at your institution, please contact your primary banking regulator. If you are

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³ The Federal Reserve issued *Frequently Asked Questions Relating to Customer Identification Program Rules Issued Pursuant to the USA PATRIOT Act* as SR 04-2, which is available on the Board of Governors’ web site at <www.federalreserve.gov/boarddocs/srletters/2004/sr0402.htm>.

⁴ The final rule is available on the Board of Governors’ web site at <www.federalreserve.gov/boarddocs/press/bcreg/2003/200304302/attachment.pdf>.

² 31 C.F.R. §103.121(a)(1)

“IRR Models” *continued from page 5*

assumptions is critical to ensure this understanding.

- Understand the underlying foundation for particularly high-risk assumptions. High-risk assumptions can occur in prepayment speeds for loans and mortgage backed securities and maturity or repricing assumptions for non-maturity deposits. If private vendor estimates are used in a model, the vendor’s methodology should be understood in order to evaluate its relevance for the bank and the degree of errors should be tracked.
- Understand the implications of strategic planning assumptions built into the model. For EaR models, a bank may create a model based on input that reflects its strategic plan for the next year or two, rather than the current condition of the bank. These estimates should reflect reasonable assumptions concerning the economic environment and the bank’s capabilities. Excessive growth rates might reflect more wishful thinking than reasonable strategic planning, particularly if forecasts of the local or national economy and the bank’s past performance raise doubts that those growth rates will be met.

Improving the Quality of Model Results

Modeling assumptions can be inherently difficult to estimate. The bank’s estimation methods for the assumptions may not be as advanced or as accurate as desired or some estimation techniques might require quantifica-

tion and measurement skills that the bank cannot afford to acquire or obtain from private vendors. Even the most sophisticated econometric estimation models may not provide the level of accuracy required.

Estimating future behaviors can be fraught with difficulties and to some degree only limited efficiency. In es-

Even the most sophisticated econometric estimation models may not provide the level of accuracy required.

sence, this is the nature of quantifying risk. However, it is important to identify those elements in the model which are least likely to be accurate and, consequently, most likely to lead to erroneous conclusions. Therefore, the first step is to identify which model assumptions are most likely to deviate in reality from the value used for model inputs.

The next step is to attempt to quantify the probability of different outcomes for the questionable assumptions. To some extent, this requires quantifying the probability of occurrence of different economic and financial conditions that could influence these outcomes. The correlation between different inputs also should be considered. For example, if loan demand

fails to materialize as expected, there will probably be less need for deposit growth, so administered deposit rate changes may not be as great as originally planned.

Finally, to give ALCO and the Board of Directors an understanding of the potential effect of inaccurate assumptions on model results, the model can be run using alternate assumptions that the modeler considers less probable but still reasonable. This could mean using less favorable assumptions to develop a worst-case scenario, with the clear understanding that the assumptions are not considered the most probable but are being used to ascertain the possible range of outcomes.

One specific area where generating alternate model results could be beneficial is non-maturity deposits. Banks where non-maturity deposit valuations are substantially different from those of the federal bank regulators’ benchmarks might benefit by using those benchmarks or non-maturity deposit assumptions used by similar banks in the bank’s markets in place of institution-specific non-maturity deposits input estimates to develop a rough estimate of how sensitive the bank’s balance sheet might be to non-maturity deposits model inputs.

Obviously, the federal bank regulators’ benchmarks are only industry generalizations based upon industry observation and are not meant to replace individual bank estimates. However, when model results from using the regulators’ or marketplace

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“IRR Models” *continued from page 8*

non-maturity deposit benchmarks vary substantially from the results when the bank’s estimates are used, additional validation of the model based on institution-specific assumptions may be warranted to assure the validity of the non-maturity deposit inputs.

Using Alternate Scenarios

While bankers will use the most likely interest rate risk scenario to manage the bank’s interest rate risk, they can still obtain useful information from al-

ternate scenarios, including worst-case and best-case scenarios. The alternate outcomes can be viewed collectively to provide additional assurance of the validity of the selected scenario. For example, if the worst-case scenario and assumptions produce results not significantly different from the model with the most probable assumptions and if those results are within a bank’s interest rate risk limits, then management can be fairly comfortable that even if the assumptions are off, the effect on the bank’s earning potential will not be significant. If, however, results from using alternate assumptions are significantly different, prudent management may consider taking additional measures to monitor interest rate risk, develop contingency plans to manage interest rate risk if the alternate worst-case assumptions turn out to be accurate, and consider

whether hedging techniques would be cost effective. Some community bankers may question the additional time and cost needed to run models with alternate assumptions. While the actual inputs and computer runs should not take substantial additional time, identifying the important behavioral assumptions and interrelationships is probably time consuming. Hopefully, management would be considering these issues whether or not they

produce alternate model runs. Even if the time and expense to produce alternate model results is prohibitive, management should at least consider the probability that their assumptions could be wrong and attempt to judge the likely deviation from the model output that they do have. While there is no regulatory requirement for state member banks to expend the extra effort to estimate the possible range of interest rate risk caused by incorrect assumptions, this could be a useful interest rate risk management process when implemented periodically.

bank could stress test its interest rate risk models periodically using ramped, non-parallel changes based on past history. For example, the fed funds rate rose by about 325 basis points between March 1988 and May 1989 and fell by about 475 basis points during 2001, while 10 year Treasuries moved relatively little over these same periods. However, from early 2001 to mid-year 2003, the 10 year Treasury rate fell over 300 basis points. Banks dependent on the current steep yield curve do not want to be surprised

Management should not manage a bank’s interest rate risk based solely on models using inputs from a stressed environment and stress scenarios.

ternate scenarios, including worst-case and best-case scenarios. The alternate outcomes can be viewed collectively to provide additional assurance of the validity of the selected scenario. For example, if the worst-case scenario and assumptions produce results not significantly different from the model with the most probable assumptions and if those results are within a bank’s interest rate risk limits, then management can be fairly comfortable that even if the assumptions are off, the effect on the bank’s earning potential will not be significant. If, however, results from using alternate assumptions are significantly different, prudent management may consider taking additional measures to monitor interest rate risk, develop contingency plans to manage interest rate risk if the alternate worst-case assumptions turn out to be accurate, and consider

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While there is no regulatory requirement for state member banks to expend the extra effort to estimate the possible range of interest rate risk caused by incorrect assumptions, this could be a useful interest rate risk management process when implemented periodically.

Additional Stress Testing

While stress testing parallel interest rate shocks up to 300 basis points may appear extreme, particularly if one is looking at instantaneous shocks, a

when the yield curve flattens. Based on the decline in interest rates over the past few years, it might be reasonable to stress test a 475 basis point or greater rise in short term interest rates ramping over a number of quarters.

One important element to consider when stress testing is whether and how traditional correlations between model components break down and what affect this has on model results. Management should not manage a bank’s interest rate risk based solely on models using inputs from a stressed environment and stress scenarios; however, stress testing does provide important information for management’s consideration.

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COVER STORY

“Trends in Enforcement Activity”

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As financial institutions have become larger and more complex, many operate along a national business line model as opposed to a legal entity model. In response, examination approaches for these organizations have changed, with increased reliance on continuous supervision of the entire organization, supplemented by targeted examinations of national business lines. All of this information is subsequently aggregated into full scope findings for the legal entity. With this shift in examination approach, enforcement actions, which are still imposed on the legal entity, are increasingly focused in specific areas.

Depending on the severity of the risk and expectations of management’s ability to take corrective action, an enforcement action may either be an informal understanding between a financial institution and its supervisor(s) or a more formal action, enforceable in the courts. Generally, supervisors use a step approach when imposing enforcement actions, working through informal actions—such as moral suasion, Board resolutions, commitments, and memoranda of understanding—before imposing a formal action. In most cases, financial institution management responds appropriately to the informal action, correcting the deficiency(ies) and restoring the institution to compliance. Consequently, informal actions are the most common type of enforcement action.

Because informal actions are issued for less severe violations, they are

prohibited by law from being made public by bank supervisors. However, upon recommendation of a CPA or legal firm or through a desire for increased transparency, many financial institutions typically do disclose informal actions.

Bank supervisors impose formal actions when (i) financial institution management does not respond appropriately to informal actions, (ii) the risks are significant, (iii) violations of law or regulations continue, (iv) a single violation of law involves *Bank Secrecy Act* rules and regulations, as enumerated in §208.63, (v) the financial institution violates a condition imposed in writing by the Board of Governors in connection with the granting of an application or any written agreement, and/or (vi) unsafe and abusive practices occur. Formal actions include written agreements, cease and desist orders,

prohibition and removal orders, civil money penalties, and prompt corrective action directives. These formal enforcement actions are legally enforceable and, under the provisions of FIRREA and the *Crime Control Act of 1990*, are publicly disclosed.

A Historical Perspective

As would be expected, the number and type of enforcement actions fluctuates with changes in the economy and the banking environment. Chart 1 shows the trend in formal enforcement actions initiated by the Federal Reserve System from 1990 to 2003.^{1,2} “Company” enforcement actions were entered into with an institution supervised by the Federal Reserve System, while “individual” enforcement actions were entered into with an institution-affiliated party, such as an officer, director, employee, or other individual. It is clear that the increase in and subsequent peak of formal en-

Chart 1. Federal Reserve System Formal Enforcement Actions



forcement actions in 1991 and 1992 followed the 1990 recession. Accordingly, a similar increase in the number of enforcement actions would be expected in the years following the 2001 recession. And, in fact, from 2002 to 2003 the number of formal enforcement actions initiated by the Federal Reserve System increased 144 percent to 56, reaching a level not seen since the mid-1990s but nowhere near the level seen in 1992.

As shown in Chart 2, the number of informal enforcement actions peaked

¹ The number of enforcement actions may be larger than the number of enforcement cases reported on the Board of Governors' web site (www.federalreserve.gov/boarddocs/enforcement/) since some cases involve multiple actions (e.g., Cease and Desist Order or Written Agreement in combination with Civil Money Penalties and/or Prohibition Orders).

² Information on enforcement actions initiated by the other Federal banking regulators can be found on their respective web sites—FDIC <www.fdic.gov>, OCC <www.occ.treas.gov>, NCUA <www.ncua.gov>, and OTS <www.ots.treas.gov>.

in 1992, following the 1990 recession, and again increased, although not as dramatically, since the 2001 recession.³ The 141 informal enforcement actions in 2003 represent a 21 percent increase over 2002.

As the number of both formal and informal enforcement actions is increasing, the nature of the corrective action required is also changing. In the early 1990s, many enforcement actions focused on correcting weaknesses in lending policies, practices, and portfolios, as asset quality concerns were significant. In contrast, a significant number of enforcement actions in the past three years focused on violations of regulations, weaknesses in audit and internal controls, and weaknesses in financial and regulatory reporting. Violations of the *Bank Secrecy Act (BSA)*—in-

³ Statistics on informal enforcement actions are available in the Board of Governors' Annual Report at <www.federalreserve.gov/boarddocs/rptcongress/annual03/default.htm>.

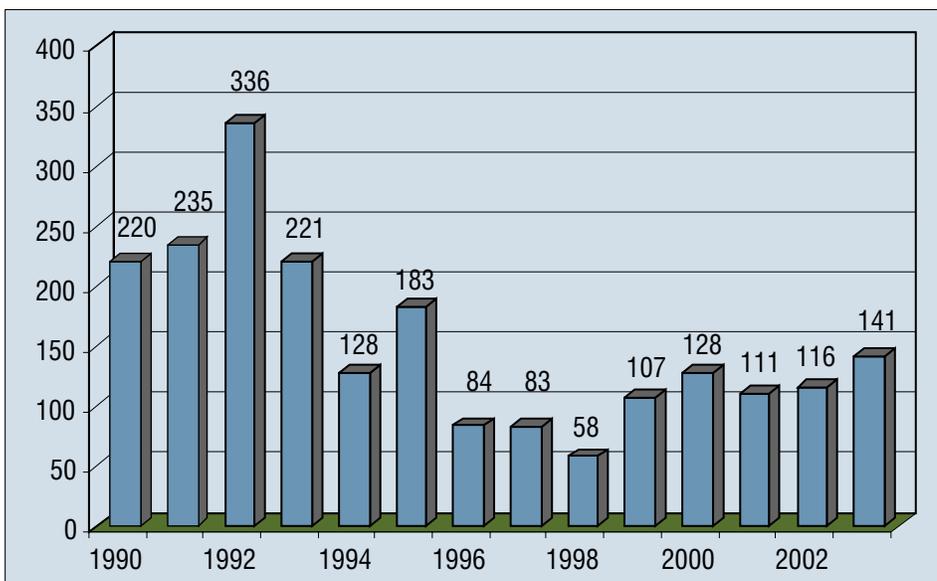
cluding general BSA compliance, compliance with Office of Foreign Assets Control (OFAC) requirements, filing of Currency Transaction Reports (CTRs) and Suspicious Activity Reports (SARs), and other violations—and the provisions of the *National Flood Insurance Act of 1968* and the *Flood Disaster Protection Act of 1973*, as articulated in §208.25 of Regulation H, were especially prominent in recent enforcement actions. These weaknesses were not driven by the level of economic activity; rather, they reflected breakdowns in processes and controls, which is an indication of a breakdown in corporate governance and board and management oversight. It is not surprising, therefore, that many formal enforcement actions during this period also required an independent review of management structure and board oversight.

Correlation Between Enforcement Actions and Bank Failures

Not all institutions subject to formal enforcement actions are destined to fail; this is highly dependent on the underlying cause(s) of the enforcement action and management's ability to correct deficiencies. However, as would be expected, there is a correlation between enforcement actions and bank failures, both before and after the failure. This should not be surprising, since the required remedial measures in enforcement actions represent sound practices, and a lack of safe and sound practices can lead to failure.

Since 1992, 26 state member banks, which were supervised by the Federal Reserve System, failed.⁴ Of those 26 failures, 17 institutions had been placed under one or more formal enforcement actions in the months

Chart 2. Federal Reserve System Informal Enforcement Actions



and years leading up to the failure.⁵ In addition, in some of those and other cases, individuals responsible for the failures were subject to civil money penalties and/or prohibitions from banking after the failures.

One reason that not all institutions under formal enforcement actions fail relates to the changing structure of many banking organizations. Diversification of both products and revenue sources can provide a financial cushion against weaknesses in operational areas. However, this very diversification has also led to more risk, as rapid growth and new products make risk measurement and management more complex. Corporate governance must keep pace with this rapid growth or management risks enforcement actions related to breakdowns in business processes and noncompliance, even when the safety and soundness of the institution is not immediately threatened.

Raising the Stakes

Increased interest in corporate malfeasance by criminal and civil authorities has raised the stakes of noncompliance with laws and unsafe or unsound operations. Today, a financial institution under an enforcement action might not only have to comply with the demands of federal and state bank regulatory authorities; it also might be subject to criminal and/or civil litigation and penalties. Criminal investigations and charges

are more likely to accompany bank enforcement actions than in the past, particularly in light of tools that the *Sarbanes-Oxley Act* has given prosecutors. State regulators and attorneys general have become more active in enforcing consumer protection, civil, and criminal laws, particularly in subprime and predatory lending. Globalization and increased levels of international activity also mandate cooperation and coordination with international supervisors, which raises the stakes even higher.

The Public Response

When Congress mandated the publication of formal enforcement actions, many bank supervisors were concerned that this information could precipitate increased withdrawals from or deposit runs on affected financial institutions. A Federal Reserve Bank of St. Louis study published in 2000 investigated this hypothesis by comparing deposit growth rates and yield spreads before and after the announcements at a sample of state member banks placed under formal enforcement actions between 1990 and 1997.⁶ The study showed no evidence of unusual deposit withdrawals or spread increases at the sample banks following the announcements of formal actions. Since deposits up to \$100,000 are FDIC insured and since the deposits of a failed institution are generally assumed immediately by a sound institution, this could be expected.

To date, core deposits have been a positive factor in allowing financial institutions to work through enforcement actions. However, institutions with more reliance on wholesale funding—whether through Federal Home Loan Bank borrowings, other borrowings, or wholesale deposits—might see increased funding volatility, both in rates and volume, once under an enforcement action. In addition, with the possible imposition of criminal and civil penalties, depositor behavior might change in the future.

Final Thoughts

Instilling effective corporate governance and a strong compliance culture throughout the organization remains critical to an institution's health. An inability or failure to understand new products and their risks, recognize conflicts of interest, and know and comply with all laws and regulations, followed by the imposition of an enforcement action, would likely redirect significant management attention from the business of banking, causing strategies to be placed on hold and restricting the organization's growth during the remediation process. Understanding new products and their risks, recognizing conflicts of interest, and knowing and complying with all laws and regulations will help ensure that the institution operates in a safe and sound manner and retains its franchise value, allowing it to continue to grow, compete, and meet the needs of its customers and communities. ■

⁴ Additional data on bank failures is available on the FDIC's web site at <www2.fdic.gov/hsob/SelectRpt.asp?EntryTyp=30>.

⁵ Data on Federal Reserve enforcement actions is available on the Board of Governors' web site at <www.federalreserve.gov/boarddocs/enforcement/>.

⁶ See Working Paper 2000-020A, *Do Depositors Care About Enforcement Actions?*, by R. Alton Gilbert and Mark D. Vaughan, on the Federal Reserve Bank of St. Louis's web site at <research.stlouisfed.org/wp/2000/2000-020.pdf>.

“Basel II: The Impact on Competition” *continued from page 3*

organizations (due to the reduced capital requirements) and the competitive advantage associated with those reduced requirements would fuel A-IRB banks' acquisitions of non-adopting banking organizations. Some bankers fear that A-IRB banking organizations would have an incentive to acquire banks not subject to A-IRB capital standards because target banks would be worth more to A-IRB banks than to current owners. A-IRB banking organizations could acquire non-A-IRB banks and increase the return on equity associated with the acquired assets by either increasing income-earning assets without adding capital or holding less capital against the newly acquired assets.

In February 2004, Board staff issued a second paper titled *Will the Proposed Application of Basel II in the United States Encourage Increased Bank Merger Activity? Evidence from Past Merger Activity*.³ Board staff did

not find convincing evidence that past changes in excess regulatory capital or that past changes in capital standards had substantial effects on merger activity. It therefore was presumed that the A-IRB approach likewise would not likely have a significant effect on merger activity.

Competitive Effects on Credit Card and Mortgage Lending

Two additional studies that explore the potential competitive effects of Basel II in the credit card and residential mortgage markets will be issued

in the near future. The U.S. banking agencies will consider the results of all four studies when conducting another Quantitative Impact Study on the revised Basel II later this year. As Chairman Greenspan has noted, if analysis demonstrates that the proposed Basel II reforms will generate competitive problems, the U.S. agencies will take steps to address this issue.

To stay up-to-date on the activities of the Basel Committee on Banking Supervision and the activities of the U.S. banking agencies, visit one of the following web sites:

Board of Governors' "Basel II Capital Accord" Web Site

<http://www.federalreserve.gov/generalinfo/basel2/default.htm>

Federal Reserve Bank of Philadelphia's "The New Basel Capital Accord Proposal" Web Site

<http://www.phil.frb.org/src/basel.html> ■

³ *Will the Proposed Application of Basel II in the United States Encourage Increased Bank Merger Activity? Evidence from Past Merger Activity*, by Timothy H. Hannan and Steven J. Pilloff, is available on the Board of Governors' web site at <www.federalreserve.gov/Pubs/FEDS/2004/200413/200413abs.html>.

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Model Validation

Model validation is often a difficult exercise, although a very important one. Management often states that validating an EaR model is difficult because actual plans changed to adapt to changing circumstances over the year or two modeling period. Management also may claim that the EaR model that was validated month to month proved to be highly accurate. Considering that a bank's condition does not change that much on a monthly basis, this may not be too surprising.

Of more interest and use is an assessment of a model's accuracy over an entire year. It may be useful to compare EaR model results with actual results after one or two years, and attempt to identify the causes of any discrepancy between the modeled and actual results. The results of such an analysis might provide insight that could be used to improve the model's future performance.

EVE model results are even more difficult to validate. An institution with little change in EVE when shocked

with different interest rate scenarios should demonstrate a fairly constant net interest margin (NIM). Those institutions showing significant changes in EVE and EaR when shocked under various interest rate scenarios would likewise be expected to experience variability in NIM, consistent with the model predictions.

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Attention: Internal Auditors!

In the fourth quarter 2002 issue of *SRC Insights*, John Shaffer, Senior Vice President and General Auditor at the Federal Reserve Bank of Philadelphia, introduced readers to The Institute of Internal Auditors' (The IIA) Professional Practices Framework. In that article, Mr. Shaffer reviewed the PPF and its major elements—Definition of Internal Auditing, Ethics, Standards, Practice Advisories, and Development and Practice Aids—as approved by The IIA in June 1999.

On January 1, 2004, one of the significant mandatory elements of the PPF, the Standards, was revised. The Standards, which are now officially called the International Standards for the Professional Practice of Internal Auditing, have been updated to reflect current risk management and governance requirements, address

consulting opportunities, and cover the release of results to parties outside the organization.

Some of the highlights include:

- Clarifying the meaning of the word “should,” which represents a mandatory obligation when used in the Standards.
- Clarifying the Standards' applicability to auditors who may be impacted by legal or regulatory issues. The Standards' introduction now states, “If internal auditors are prohibited by laws or regulations from complying with certain parts of the Standards, they should comply with all other parts of the Standards and make appropriate disclosures.”

- Clarifying the differences between assurance and consulting services.

- Stating that periodic internal and external quality assessments and ongoing internal monitoring should be part of a quality assurance and improvement program to help the internal auditing activities add value and improve the organization's operations.

The new Standards are available on The IIA's web site at <www.theiia.org/iia/index.cfm?doc_id=1499>. Reprints of the original article are available at <www.phil.frb.org/src/srcinsights/srcinsights/q4si3.html>. ■

Proposed Capital Treatment of Trust Preferred Securities

Recently released Financial Accounting Standards Board (FASB) guidance—FIN 46—changed the accounting treatment for trust preferred securities (TPS). Taking into consideration broad supervisory concerns and competitive equity considerations in addition to FASB's guidance, the Board of Governors has requested public comment on a proposed rule to change the regulatory capital treatment of TPS. As proposed, TPS would remain as a tier 1 capital element of bank holding companies (BHCs), but with stricter quantitative limits and clearer qualita-

tive standards. After a three-year transition period, the aggregate amount of TPS and certain other capital elements in domestic BHCs would be limited to 25 percent of tier 1 capital elements, net of goodwill. The amount of these elements in excess of the limit could be included in tier 2 capital, subject to restrictions. The proposal *would not* affect how BHCs account for TPS on regulatory reports filed with the Federal Reserve. Consistent with longstanding direction, BHCs would continue to follow GAAP in accounting for these instruments for regulatory reporting

purposes. Comments on this proposal should be submitted to the Board by July 11, 2004.

Analysis of the issues and discussion of the proposal is available in the Board's press release and attached proposal, both of which are available on the Board of Governors' web site at <www.federalreserve.gov/board/docs/press/bcreg/2004/20040506/default.htm>. Additional analysis of the proposal will appear in the next issue of *SRC Insights*.

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supervised by the Federal Reserve Bank of Philadelphia, please contact your institution’s central point of contact or assigned manager at the

Reserve Bank. You may also contact Senior Examiner William J. Brown (william.j.brown@phil.frb.org) in

the Enforcement Unit at the Federal Reserve Bank of Philadelphia at (215) 574-7291. ■

Whom To Call?

Financial institution management may need to contact an officer, manager, or staff in the Supervision, Regulation & Credit Department but not know whom to call. The following list should help management identify to whom to raise their questions. Financial institutions that have an appointed central point of contact should generally contact that individual directly.

Contact names appearing in **bold** are the primary contacts for their areas.

Community, Regional, and Global Supervision

John J. Deibel, VP 574-4141
Elisabeth V. Levins, AVP 574-3438
Douglas A. Skinner, Manager 574-4310
William T. Wisser, Manager 574-7267

Eric A. Sonnheim, AVP 574-4116
John V. Mendell, Manager 574-4139
Glenn A. Fuir, Manager 574-7286

Capital Markets

John J. Deibel, VP 574-4141
Elisabeth V. Levins, AVP 574-3438
Avi Peled, Manager 574-6268

Consumer Compliance & CRA Examinations

John J. Deibel, VP 574-4141
Constance H. Wallgren, AVP 574-6217
Robin P. Myers, Manager 574-4182

Consumer Complaints

John J. Deibel, VP 574-4141
Constance H. Wallgren, AVP 574-6217
John D. Fields 574-6044
Denise E. Mosley 574-3729

Regulations Assistance

Regulations Assistance Line 574-6568

Enforcement

A. Reed Raymond, VP 574-6483
William L. Gaunt, AVP 574-6167
Frank J. Doto, Examinations Officer 574-4304

Regulatory Applications

A. Reed Raymond, VP 574-6483
William L. Gaunt, AVP 574-6167
James D. DePowell, Manager 574-4153

Retail Risk Analysis

William W. Lang, VP 574-7225
Todd Vermilyea, Manager 574-4125

Discount Window and Reserve Analysis

Vish P. Viswanathan, VP 574-6403
Gail L. Todd, Manager 574-3886

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Banks should validate the assumptions used to create the models, assessing how accurate assumptions are over time and adjusting the assumptions as needed. For example, management should be aware of any changes in its customer base or markets that would necessitate changing the way it arrives at the assumptions it uses in its models, since a change in demographics or market competition may warrant changes in model assumptions concerning non-maturity deposits.

Conclusion

Accurate interest rate risk models can provide a banking institution with a substantial advantage by providing information on the true nature of the institution's interest rate risk and

allowing the institution to price and market its loans and deposits accordingly. Because of the significant percentage of model assumptions that depend on estimates of behavioral characteristics of balance sheet components, banks with significant interest rate risk or complex instruments with substantial optionality may find it useful to periodically estimate a range of results.

If you have any questions on interest rate risk modeling or interest rate risk and are supervised by the Federal Reserve Bank of Philadelphia, please contact your institution's central point of contact or assigned manager at the Reserve Bank. Questions on this article can be addressed to Avi Peled (avi.peled@phil.frb.org) at (215) 574-6268. ■



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The views expressed in this newsletter are those of the authors and are not necessarily those of this Reserve Bank or the Federal Reserve System.

Editor.....Cynthia L. Course

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