Comptroller of the Currency
Administrator of National Banks

The Challenges of Sound Liquidity Risk Management: OCC Expectations and Policy

Virtual Seminar Transcript

Tuesday, May 15, 2001

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Jim: Today's seminar is entitled the Challenges of Sound Liquidity Risk Management: OCC Expectations and Policy. Our presenters today include: John D. Hawke, Jr., Comptroller of the Currency; Kathy Dick, director, Treasury and Market Risk; John Robinson, deputy comptroller; Joey Johnson, lead capital markets expert; and Mike Drennan and Steve Sage, national bank examiners, Treasury and Market Risk. Please refer to your handout for the presenters' complete background information. Now we will turn the program over to, and get things started with, our host Kathy Dick.

Ms. Dick: Thank you, Jim. And welcome to the OCC's telephone seminar on liquidity risk management. We believe this to be a timely subject and one worthy of your attention and ours. You should have in front of you the handout Jim mentioned, and I will ask you to follow along as the speakers and I describe some of the information that we have for you. We will spend about one hour on the OCC presentation and the last half an hour of our seminar on your questions and answers.

If you move to slide 2, I will recap briefly the seminar objectives that we have established. First we would like to explain why we are concerned about liquidity risk in the banking system. Then we would like to talk briefly about how we expect you to establish systems and processes for managing liquidity risk. And finally we will discuss the common issues that arise during our examinations. Those are the objectives for today's liquidity seminar.

Jim: Thank you very much. Now we would like to determine how many people are attending today's seminar.

We will ask you to press the appropriate number on your telephone keypad. Please count the number of people at your site, and if you are attending alone, merely press the number 1 on your telephone. Touch 2, if there are two people at your site and so on up. Now, if there are nine or more people attending at your site, merely press the number 9 on your telephone keypad. And again, go ahead and press in the appropriate number now. Press 1, if you are alone. Press 2, if there are two people at your site and so on up. If there are nine or more people at your site, merely press the number nine. Now we will present Jerry Hawke, the Comptroller of the Currency.

Mr. Hawke: I want to welcome you to the OCC's seminar on liquidity risk. This is the third such seminar in our series. The series has been designed to give bankers the benefits of our views on issues important to the industry, as well as direct access to the OCC experts who can answer your questions. We had 5,000 bankers participate in our two earlier seminars on internal controls and on privacy. And audiences have told us that they have found these seminars to be valuable. I hope that you will find that to be the case as well.

Liquidity is an issue that epitomizes the challenges facing community bankers today. Many bankers tell us it is their biggest concern. That also makes it one of ours. The change in customer behavior over the last 10 years, with the shift in popular attitudes toward savings and investment, has brought dramatic changes in the average community bank's balance sheet.

Today bankers depend more on volatile, non-core deposits than ever before. And that has brought pressures

different in kind and degree from those of the past X earnings pressures, interest rate pressures, and credit quality pressures. Clearly liquidity represents a risk management challenge of the first magnitude for bankers. None of us knows what the future may bring, but it is clear that this is an opportune time for bankers to strengthen procedures for managing liquidity risk, although conditions in liquidity markets generally are favorable. And that is why we have chosen to address liquidity risk in this seminar. It is among the OCC's highest priorities today. We have focused most intently upon it in evaluating risk exposures in the national banking system.

Last February we issued a liquidity risk management handbook that outlines our expectations in this area and provides guidance for bankers and examiners in assessing their own liquidity risk profile. You will hear a great deal about that today. Presenters will devote a major portion of today's session to discussing OCC policies and procedures to help you understand your responsibilities and what your examiner will look for the next time he or she pays you a visit. You will also hear about current market conditions and their potential effect on liquidity. Hopefully you will leave with a better grasp of the essentials of a strong contingency funding plan.

The program features some of the OCC's leading experts on liquidity issues. They include three veteran national bank examiners from our Treasury and Market Risk unit in Washington led by Kathryn Dick. You will also hear from John Robinson, deputy controller in the OCC's Western District. And Joey Johnson, lead capital market expert in the OCC's Southeastern District. I cannot

think of a more qualified group to guide you through the intricacies of this subject. Now let me turn the discussion over to Kathy. Best wishes for a productive teleconference.

Ms. Dick: As Jerry noted, maintaining the delicate balance between risk and return is becoming increasingly difficult for all banks. It is not by chance that we have titled today's program, *The Challenges of Liquidity Risk Management*. At this point, let me return to Jim and then I will make a few opening comments.

Jim: That sounds good. Thank you, Kathy. At this point, we would like to ask another polling question. And we have nine responses for you. The question is: how many people at your site have seen the OCC's banner ad on americanbanker.com. Press 1, if one person has seen that ad. Press 2 for two people. Press 3 for three people. Press 4 for four people at your site who have seen the banner ad on americanbanker.com. Press 5 for five people. Six for six people. Seven for seven people at your site. Press 8, if eight or more people at your site have seen the banner ad or press 9 or 0, if no one has seen the banner ad. Go ahead and register in the appropriate numbers now.

We will give you those responses again quickly. One for one person. Two for two people. Three for three people. Four for four people at your site who have seen that banner ad. Five for five people. Six for six people at your site. Seven for seven people. Eight for eight people or more at your site who have seen that banner ad on americanbanker.com. Or press 9 or 0, if no people at your site have seen the banner ad. And now we will return to Kathy Dick.

Ms. Dick: Thank you, Jim. If you can turn to slide number four, I would like to take one minute to speak with you briefly about some of the liquidity risk changes the OCC has been observing. We are paying close attention to the asset side of the balance sheet. We have certainly seen a trend in loans increasing and liquid assets decreasing, when we speak about a general bank balance sheet. On the liability side, we have seen relationship or core deposits declining and at the same time, in many banks, an increasing reliance on credit- or rate- sensitive funds providers. That last bullet is there to remind us that the problem resolution framework we have today is different than the one we had 10 years ago. From the OCC's perspective, the level of liquidity risk in the system is higher, and now is the time for you to ensure that you have appropriate, high quality liquidity risk management processes in place.

Turning to slide number five, I will take another minute to introduce you to the OCC's Canary system. Many of you and certainly our national bankers in the audience are familiar with this system. The OCC Canary system was designed by the Comptroller's Office as an early warning system for community banks. It includes ratios and barometers that we use in the early warning system for key risk areas, such as credit, liquidity, and interest rate risk. An in-depth discussion of Canary is beyond the scope of this seminar today, but if you look at the types of ratios that we review for liquidity, you see issues consistent with the trends I mentioned for the dynamics of the balance sheet. In the appendix section of your handout, you have additional information on the

Canary ratios and some charts that indicate the trends we have noticed in these particular ratios. Now, I would like to return to Jim.

Jim: Alright, thank you very much. We would like to ask another polling question. Here is the question. The following best describes the use of alternative funding sources at your bank. Press 1, if it is Federal Home Loan Board (FHLB) only. Press 2 for Internet deposits only. Press 3 for brokered deposits only. Press 4 for some combination of one, two, and three. Press 5 for none at present, but plan to use in the next 12 months. Or press 6, if none are at present and you have no plans to use these sources in the future.

I will give you that question again. The following best describes the use of alternative funding sources at your bank. Press 1 for FHLB only. Two for Internet deposits only. Three for brokered deposits only. Four for some combination of one, two, and three. Press 5 for none at present, but plan to use in the next 12 months. Or press 6 for none and no plans to use in the future. You can go ahead and register in the appropriate number now. We will continue on with the program and present John Robinson, deputy comptroller, Western District.

Mr. Robinson: Thank you, Jim. I am deputy comptroller for the Western District. My portfolio includes community banks from western Kansas and Nebraska to Hawaii and Alaska. I would like to spend a few minutes today talking about changes in community bank funding that have caused many of you to change the shape of your balance sheets and the OCC to rethink our approaches to liquidity risk in community banks. I will cover four main

points: (1) the way it was; (2) what has changed; (3) what those changes mean for banks; and, (4) what those changes mean for examiners.

First, the way it was and still is for some banks. Insured core deposits were the primary source of funds. In 1992 community banks' loan-to-core-deposit ratio stood at about 68 percent. Liquidity was managed largely on the asset side of the balance sheet by using relatively short-term loans and significant holdings of high quality, shorter-term securities. In 1992, loans in community banks made up only 55 percent of total assets. The stability of the core deposit base enabled banks and their examiners to be comfortable that managing liquidity risk was relatively simple, and a substantial safety margin was built in. Banks made a nice living from a healthy net interest margin.

Second, let us look at what has changed from that picture for many banks. The loan-to-core-deposits ratio has increased from 68 percent in 1992 to more than 90 percent the end of last year. Clearly core deposit growth has not kept up with loan growth. Consumers are saving less. As you can see from chart 11, we have seen a fairly consistent decline in personal savings as a percent of disposable income since 1985, from about 13 percent to 4 percent. Competition for funds has increased, and consumers and businesses are opting for higher yielding investments than they receive from transactions at their local banks and in savings accounts. As you can see from chart 13, since 1989 deposits in banks, thrifts, and credit unions, have dropped from 19 percent to 10 percent of household financial assets. At commercial banks, a loan has declined from 11.5 percent to 7.5 percent. At the same time,

corporate equities, mutual funds, and pension funds shared assets has increased substantially. Some of this shift may return to banks as the stock market retrenches and consumers look for alternatives to the dwindling supply of Treasury securities. We believe that it is unlikely that these trends will reverse over the longer term.

Core deposit growth will not likely keep pace with bank loan growth, because baby boomers and their children have not lived through a depression. The information age has vastly improved consumers' knowledge and understanding of their financial alternatives. And their nonbank competitors are not going away. We do not think it is possible to put all that toothpaste back in the tube.

Third, community banks have reduced their level of liquid assets. As you can see from chart 15, liquid assets have fallen from 19 percent of total assets in 1994 to about 15 percent at the end of last year. And the difference has gone into more loans, reducing the flexibility of banks to respond to liquidity needs with the asset side of the balance sheet. We have also seen big changes in technology and financial innovation in recent years. The combination of technology and financial innovation has made tools available to community banks that were previously unavailable or impractical for all, but the largest, banks. Deposit brokerage, securitization opportunities, and Internet-based deposits are among the tools now available to many community banks.

Fourth, and finally, the thrift industry disaster of the '80s resulted in the Federal Home Loan banks, not only being able to provide funding for banks, but also being highly enthusiastic about it.

So what does this mean for banks? Well, less core deposits to fund loan growth causes a need for funding alternatives. There are now more tools available to manage liquidity, but they generally are either more expensive, more price sensitive, more credit sensitive, or sometimes all of the above.

Bottom line is that many community banks are faced with the need to rely more on nontraditional funding sources to meet the growing loan demands of their customers. And that means taking on added risk. So what kinds of risks are we talking about? Risks from alternative funding sources typically take the form of, first, credit-sensitive funds providers. If the bank's credit quality deteriorates or there is a market crisis, the funding source either disappears or becomes markedly more expensive. For example, the securitization market for anything perceived as risky largely dried up for some months after August 1998. And it does not take much imagination to figure out the reaction of uninsured depositors when a bank's condition deteriorates substantially.

Second, increased earnings risk results largely from the credit sensitivity of funds providers that we just mentioned. As a bank's condition deteriorates, uninsured funds providers usually demand higher yields or the requirement for additional collateral forces the bank into more price-sensitive options.

A third type of risk is increased interest rate risk. This is reflected by the banks yielding to the temptation to reduce funding costs by relying on short-term funds.

The fourth type of risk is what I will call complexity risk, banks not understanding the nature of the risks

involved in funding products that are new to them, for example, securitization products or callable advances. Joey will talk more about callable advances later in the program.

I would like to focus for a minute on the Federal Home Loan Bank System, because it has an important and increasing role in community bank funding. The Federal Home Loan banks generally have been the wholesale funding source of choice for community banks since the early '90s. As you can see from chart 21, between 1995 and 2000, Federal Home Loan Bank advances at banks have risen more than 400 percent from $33 billion to more than $175 billion. The number of banks with advances has also doubled to more than 4,000 banks. We recognize that the Federal Home Loan banks are a good source of funding for community banks. They offer both secured and unsecured funding.

Unsecured funding, sometimes called investments, is typically very short-term and is available only to highly rated banks and it is generally considered Fed funds. Secured funding, or advances, in particular, is very useful for community banks. It is relatively low cost, and the funding is available for longer terms than is readily available elsewhere. As a result, it can be a very cost-effective tool for managing both liquidity and interest rate risk.

Federal Home Loan Bank advances, however, are not risk free. Federal Home Loan banks are professional lenders. They are very good at it. You need to approach the Federal Home Loan banks just as you would any other source of outside services that a vendor or a bank would use, with appropriate due diligence and understanding of

the risk reward profile of the product that you are buying. It's important to understand that the Federal Home Loan banks are credit-sensitive lenders. Even with advances, you must understand how the status of your borrowing relationship will change if your bank deteriorates. While the Federal Home Loan banks typically have been very good about not abandoning their clients as long as there is plenty of collateral, a declining bank will trigger responses that can reduce the line availability, increase collateral requirements, or both.

The Federal Home Loan banks also offer a range of options with their advance products, not all of which are suitable for every bank. Make sure you understand how the product you buy fits into your asset and liability management plans. As you all know, advances are offered in a broad range of maturities. Avoid the temptation to save on rates, but expose your bank to excessive interest rate risk or refunding risk by loading up on the short-term end.

In summary, the Federal Home Loan banks are a good tool in your liquidity management toolbox, but like many good tools they have some sharp edges. You must understand what you are getting, and how it will affect the bank in a variety of scenarios, some of which might not be pleasant to think about.

Now what does this mean for examiners? First, we recognize that the world has changed for you and likely will keep moving that way, especially the continued decline in core-deposits as a percent of funding. As always, we must keep up with the ever-changing nature of risk and be prepared to help you do the same. We expect to see more

nontraditional funding strategies, but at the same time, we also expect to see more sophisticated risk management and controls that match the new risk these strategies pose to the bank. The bottom line for you as well as for us is that the quality of risk management is becoming increasingly important.

Now before I wrap up this section we would like to do another quick poll. Jim let me turn it back to you for the next polling question.

Jim: Thank you very much. The next polling question is this. For banks using FHLB advances, which of the following best describes your use of putable/callable/collectible funding? Press 1, if it is none. Press 2 for all advances contain these features. Press 3 for 50 percent or more contain these features. Or 4, less than 50 percent of advances contain these features. So go ahead and register in your appropriate numbers now.

I will give you that question and the options again. For banks using FHLB advances, which of the following best describes your use of putable/callable/collectible funding? One, none. Two, all advances contain these features. Three, 50 percent or more contain these features. Four, less than 50 percent of advances contain these features. Now we go on to Kathy Dick, director, Treasury and Market Risk division.

Ms. Dick: Thank you. I will spend a few minutes talking about OCC expectations for how community banks should manage their liquidity risk exposures. And as the Comptroller indicated, we do have this guidance and our expectations articulated in an OCC handbook, *Liquidity Risk Handbook.* It was issued in February of this year.

That particular handbook is available, as are others from the OCC, at the OCC's website.

If you turn to your handout on page 26, I will begin with a discussion about who should be involved in the liquidity risk management process. The OCC identifies three people or groups that we believe have critical responsibility for the bank's management of liquidity risk. The first is the officer who is designated the responsibility for the day-to-day management of liquidity risk. This is the person in your institution who has the authorities and responsibilities for that particular activity.

The second group is the asset liability management committee or ALCO, as it is commonly referred to. This might be considered the heart of liquidity risk management at a community bank. ALCO generally sets the tone with policies, procedures and practices, and their actions should reflect the board's tolerance for risk. We might think of ALCO as being the cog that brings together various spokes influencing liquidity and that might include credit, operations, marketing, and funding.

And last, but critically, is the board of directors. The board, as the OCC has been very clear, always maintains ultimate responsibility for risk management. So with respect to liquidity risk management, the board has that responsibility, and the OCC believes it is critical that the board remains involved and informed.

On slide 27, I would like to spend a minute talking about a couple of sensitivities that John introduced in the first section of our seminar today, and that we believe are important and must be understood by community bankers. These particular sensitivities, credit and rate sensitivity,

speak to customer behaviors. And our experience in evaluating factors that influence liquidity risk is that these are the two critical sensitivities of funds providers that can significantly influence the ability of a bank to successfully manage its liquidity risk exposure. I really ask you to draw your thinking from some of the common terms we used in the past, such as core funding or wholesale and retail funds providers, and to think a little bit differently today.

Credit sensitivity refers to the tolerance of funds providers to real or perceived changes in the credit quality of the receiving bank. For example, a credit-sensitive provider will tend to withdraw its money when it sees deterioration in the indicators it uses to measure the quality of the bank’s financial condition. Such indicators might be external ratings, level of nonperforming assets, or deviation from expected earnings.

On the other hand, rate sensitivity, another critical factor, refers to the provider’s sensitivity to changes and rates paid for funds. Providers that are rate sensitive will typically move their money quickly when they can get a better rate somewhere else. Here, at the OCC, we are encouraging our bankers to focus more attention on these behavioral characteristics, because our experience tells us that these factors are critical to managing liquidity risk exposure when funding with other than traditional retail deposits.

If you move along to slide 28, I would like to speak for a moment about liquidity risk from another dimension and, that is, its components. What are the factors that influence your liquidity risk? And I think you must remember that these same components are interconnected

directly with the sensitivities we spoke about a few moments ago. When we think about rollover risk at the OCC, we consider that the exposure that arises from an inability to renew maturing liabilities at a reasonable cost. And this is an exposure that will exist at any bank with significant reliance on nonrelationship deposits.

As I mentioned earlier, funds providers who are sensitive to changes in the bank's financial condition or in changes in the rate paid on their funds will expose the bank to rollover risk anytime the terms of the funding arrangement allows for withdrawal. The key to managing this risk effectively is to limit the volume of funding rolling over at any given point in time.

Market risk, the next exposure, arises when a bank relies on selling or repoing assets to meet obligations. Our experience here tells us that frequently bankers underestimate the losses that must be taken to sell a depreciated asset or the haircut that will be taken when providing such assets as collateral.

And last, but not least, is event risk. And this is that low probability, but high impact exposure, that can arise when an event or series of events quickly causes deterioration in the bank's ability to meet its obligation. The event can be bank specific. In a community bank, we might think of such events as the announcement of a plant closing in a small rural community. The event might also be thought of as a market-related topic, such as the liquidity problems John spoke about earlier that occurred in financial markets during the fourth quarter of 1998. We would encourage you to think about your customer's sensitivities

and about your bank's exposure to these three components of liquidity risk.

And now if we turn to slide 29, we can talk about the secrets to success. What are OCC examiners looking for when they evaluate the adequacy of your bank's liquidity risk management process? If we use the analogy of a jigsaw puzzle, five critical pieces are needed to effectively manage your liquidity risk. All of these pieces must fit together, and as the puzzle is brought together as a whole, it will be unique and tailored specifically to your bank. The OCC is looking for the following elements: a well-defined liquidity strategy; tools and techniques to identify and measure liquidity risk; strong internal controls; a viable contingency funding plan; and reliable and accurate management information systems and reporting processes. This is the message that is communicated in the *Liquidity* handbook, and what you can expect your OCC examiner to focus on at the next examination of your bank.

What does this mean to a community bank? It means that you should be able to accurately identify and quantify your primary liquidity risk exposures. You must know what obligations must be met, and what impediments might arise in your plan to meet these obligations. It means management of liquidity risk should be active and not passive, controlled, and monitored just as you would do for credit or interest rate risk. And it means you need a strong control framework X the checks and balances to which we are accustomed in the banking industry. You need reliable and accurate information. It means that if all five pieces of the puzzle fit together in a snug and tight manner, your ability to achieve success in managing liquidity risk should

be increased. At the OCC, we believe that the size of that puzzle and the shape will vary by institution. What is important is that your risk management framework is commensurate to the liquidity risk profile of your institution and the level of risk tolerance of the board of directors.

Let us dig a little deeper and explore some of the individual pieces. First on slide 30, we will talk about liquidity strategy, and I will highlight a couple of key points for you. First, the OCC expects that all banks have a liquidity strategy. This is active, not passive, management of liquidity risk. The liquidity strategy should be consistent with your overall strategic plan. And I mention this, because frequently we see community banks that have aggressive growth plans funded with unrealistic plans with respect to increasing core deposits.

Your strategies should articulate your expected funding sources, and how you will use those strategies to meet your funding needs. Your strategies should express how liquidity risk will be measured and controlled. This is how you will know whether your strategy was successful. Your strategy should consolidate bank charters and branches. The parent company and other nonbank affiliates should be considered, but not directly consolidated. And the strategies should be shared and understood by important parties in your bank. This actually should be one of your easier puzzle pieces to identify. And keep in mind, the key here is that the shape is consistent with your bank's overall strategy.

Now let us talk about the risk measurement tools as illustrated on slide 31. This is one particular puzzle piece

that will vary greatly from bank-to-bank. And it really relies greatly on the liquidity risk profile of your institution and the board's tolerance for risk. The good news is that technology provides community bankers with numerous alternatives, and I encourage you to take advantage and use more than one liquidity risk management tool when putting together the toolkit John spoke about.

The next several slides show two approaches to liquidity risk measurement that we, at the OCC, believe are important. On slide 32, we believe that all banks need liquidity risk measurement tools that capture future exposures. Think of these as your active risk measurement tools and know that they really are critical for today's funding environment. The timeframes for analysis will vary, but this is the edges of the puzzle piece that allow for effective planning.

On slide 33, we speak to the historical measurement processes. Think of these as the grooves in the puzzle piece. These risk measurement tools tell you something about what has happened in the past, and that is useful for consideration, but it doesn't tell the whole story. So where is the OCC's short list for liquidity risk measurement tools?

If you look at slide 34, we have tried to highlight for you those tools that we believe are important for a community bank. Your goal should be to select a meaningful complement of these tools. Again I would encourage you to go beyond one risk measurement tool with respect to liquidity. And make sure that those that you select are equal to the complexity of your risk and the board's tolerance. Under the forward-looking tools, the OCC expects all community banks to use a projected needs

and sources. Some banks may call this the sources and uses, the name is not important. Instead one should focus on the fact that this particular report measures the bank's inflows and outflows over a short-term time horizon. The level of detail can be adjusted to reflect your individual bank's complexity, but, at a minimum, all community banks should prepare a one-year projection.

The cash flow or funding gap measurement takes the projected needs and sources one-step further. This is critical for community banks with significant embedded options or reliance on credit- or rate-sensitive providers. Here the time horizon is longer. Although the cash flow report generally requires more data and analysis than the projected needs and sources, the advantage is that it allows bank management to identify longer term funding imbalances which bank management may wish to act on today. Because this report is reliant on robust cash flow information, an asset liability management model that handles embedded options will help you greatly here.

Moving on to the funding concentration report. This particular measurement captures exposures that arise when a single decision or a single factor could cause a significant and sudden withdrawal of funds. Key inputs to this analysis will be balances, rollover dates, and rates. Here, in a community bank, you might want to consider such items as a special advertising campaign, Internet deposit listings, brokers, or funds generated from a wholesale provider, such as the Federal Home Loan Bank. By mapping the maturity of these large fund providers, bank management can make informed decisions about potential exposure to rollover risk.

And the last forward-looking report to be discussed is funds availability. And I like to think of this as a report that really partners with the three I just mentioned. This particular report works as a borrowing base and it rally illustrates the bank's capacity for additional funding. This is critical of course for any bank that relies on borrowed funding for day-to-day or contingency funding planning.

Now let's look at a couple of historical type analyses. The sources and uses analysis, as the OCC uses those terms, identifies structural balance sheet changes over a specified period of time. And contrary to the projected needs and sources, this retrospective report maps historical funds inflows and outflows. It is not a projection tool, but it can be useful for developing cash flow projection assumption. The funds flow analysis works on the same principle as the sources and uses, but focuses on those accounts linked most directly to liquidity risk management. In this case I think of things like free or unimpaired securities, fed funds, and jumbo CDs.

Let us move on to the third piece of the puzzle. And that would be slide 35. Effective management of any risk exposure is reliant on a strong internal control environment. Two sides of this one puzzle piece must be understood. They are risk limits and audit coverage. I assure you, your examiners will look at both. Think of risk limits as the mechanism for the board and senior management to communicate risk tolerance to those charged with day-to-day management responsibilities. Many problems that we, at the OCC, see could be avoided with a simple set of prudent risk limits. Keep in mind that no one size fits all. But a few principles hold true for any

limit established. The limit should be set by the board. It should be measurable. It should be periodically reviewed and adjusted when conditions or risk tolerances change. You should think of those limits as being part of your own early warning system. Often we see banks using triggers to alert management to deterioration in bank liquidity before actual limits are breached. These measurement processes should provide for regular monitoring of compliance within limits, and periodic, independent review or testing. Exceptions to your hard limits should be infrequent, and your policy for handling them should be articulated.

You should think of internal audit as the other half of your internal controls puzzle piece. OCC audit expectations have been shared in a recently issued handbook and a previous telephone seminar. The concepts are simple. Your audit coverage should be comprehensive and conducted by qualified personnel. This is your checks and balances.

We have two pieces of the puzzle remaining. Let us move on to slide 36. This is one particular puzzle piece that we, at the OCC, sometimes believe is neglected by bank management. But do not let the potentially smooth sides of this piece fool you, as this is your safety net. And that would be the contingency funding plan. To be perfectly clear, the OCC expects all national banks to have a written contingency funding plan. And I would clarify here that this is not just a line of credit somewhere. This is a formal plan that will be tailored specifically to your bank, equal to your risk profile and the risk tolerance of the board of directors.

So what should be included in that contingency funding plan? There are a couple of items highlighted on the slide for you. A contingency funding plan is a cash flow projection. The forecasts are funding needs and funding sources under a variety of scenarios. These scenarios should represent your best estimate of any balance sheet changes that may result from a liquidity or credit event. And if we think about community banks specifically, the types of scenarios might include the reporting of an isolated, but perhaps significant problem, the reporting of indicators that imply a deeper and longer lasting problem and maybe even deterioration in general market conditions or the banking sector. As with components of risk management processes already described, these scenarios and the assessment that goes with the projected effect on cash flows should be commensurate with your risk profile.

Within scenarios, think about how these might affect your expected cash flows. You should think of this as a vulnerability or sensitivity analysis. What might happen if all your Internet deposit providers refused to rollover funds? How would you continue to fund asset growth if collateral constraints limit availability of Federal Home Loan Bank advances?

Don't be complacent here. Test yourself; test your bank's plan. Once your vulnerabilities have been identified, you should take the time to articulate your plan of action. These actions should be reviewed periodically to ensure that they are still viable and also reasonable. Leave yourself time for active management of liquidity risk and do not forget triggers. This is a process that you can use to

identify potential problems early. It may be a change in the amount of funds that rollover. It may be a change in the level of rates paid relative to market interest rates or perhaps changes in borrowing terms. Anything that will be useful as an alert to you.

And last is the attention to administrative detail. And this too is important. Ensure that all involved parties understand their responsibilities. A funding crisis can be fueled by unclear or delayed external communications. And in the midst of such a situation, resources need to be effectively used. Perception can actually become more important than reality.

And now for the last piece of the puzzle. On slide 37, we speak about management information systems. And please do not underestimate the importance of accurate and reliable liquidity risk information. We expect information to be appropriate for the intended audience, and that you have someone perform a periodic and independent review of that information. A fresh set of eyes is often helpful. We are frequently asked for good reports on liquidity and in your handout, we have attached, at the appendix section, a package of some of the better reports we have seen. Please understand, these are not official reports. They are not required, regulatory reports, and we cannot assure you that they have the appropriate or right information for your institution. There is no cookie cutter approach for liquidity risk management, but we thought that these samples might be useful as a starting point. If you have feedback on these individual reports, that would be appreciated.

So we have discussed the five pieces of the liquidity risk management puzzle. We have discussed strategy, risk

measurement tools, internal controls, contingency funding plans, and management information systems. And I have tried to articulate for you how the OCC expects you to fit these pieces together. I remind you again that we understand that the puzzle pieces will be different in each bank. Experience tells us that the puzzle really cannot be solved if any one piece is neglected or if the five pieces do not fit together properly.

I have two slides for the closing section of my discussion. On slide 38, as a reminder, we still see probably too many community banks reliant on balance sheet ratios for measuring liquidity risk. Please understand that these static ratios alone cannot support an active liquidity risk management process. Passive liquidity risk management can often expose the bank to unnecessarily high levels of liquidity risk. By the time a problem shows up in the balance sheet ratio, you may have missed an opportunity to reduce unwanted exposure.

That said, if you turn to slide 39, do not hesitate to use balance sheet ratios as a supplement to your active liquidity risk management. Use one of these to construct and control rollover risk and concentration risk. And that finishes the section on OCC expectation and policies. I will now turn the program back to Jim.

Jim: Thank you, Kathy. At this point, we have another polling question. And we would like to find out, regarding your contingency funding plan, what best characterizes your contingency funding plan? Press 1 if you have a written report with scenario analysis and funding plans, updated in the last 12 months. Press 2 if it is a written plan with scenario analysis and funding plans, but

not updated in the last 12 months. Press 3 if you have an informal plan with scenario analysis and funding plans, updated in the last 12 months. Press 4 if you have an informal plan with scenario analysis and funding plans, not updated in the last 12 months. Or press 5 on your touch-tone telephone keypad, if you have no contingency funding plan in place at this time.

Again, what best characterizes your contingency funding plan? Press 1 if you have a written plan that has been updated in the last 12 months. Press 2 if you have a written plan that has not been updated in the last 12 months. Press 3 if you have an informal plan, updated in the last 12 months. Press 4 if you have an informal plan, not updated in the last 12 months. Or press 5 on your telephone, if you have no contingency funding plan in place at this time. Let us continue with the program and turn it over to Joey Johnson. He is the lead capital markets expert in the Southeastern District.

Mr. Johnson: Thanks, Jim. As Jim mentioned, I am the lead capital markets expert for my district. In that role I routinely meet with bank presidents, chief financial officers, and funding managers to discuss their bank's liquidity position and the effectiveness of controls and measurement systems that they use to manage their liquidity. In these meetings I have noted a growing awareness and concern among bankers of the challenges in profitability funding and controlling the liquidity risk in their banks. Today I will share with you a few of the common issues I have noticed during examinations of bank liquidity, and the lessons bankers have learned as they have

strived to meet the challenges of managing their funding and liquidity risk in today's banking environment.

If you will look at handout 42, you will see the six most common lessons I'm going to talk about today. First, I will talk about the importance of identification, monitoring, and control over funding concentration. Next, how critical it is that banks understand structured Federal Home Loan Bank advances and the value of dynamic forward-looking liquidity risk measurement tools. That will be followed by a discussion of the importance of accurate cash flow reporting and establishing meaningful liquidity risk limits. Finally I will finish by talking about developing a viable contingency funding plan.

Let us talk about the first important lesson, which appears on slide 43, identifying and monitoring, and controlling funding concentrations. Most of you are accustomed to managing concentrations of credit in the loan portfolio, because you correctly understand the risk posed by significant concentrations in the loan portfolio. But what we have noted is that many bankers fail to do the same in the management of liquidity risk. More and more often we see community banks borrowing at the Federal Home Loan Bank using both overnight and term funding.

Concentrations of funding with the Federal Home Loan Bank are the single largest funding concentrations we see in community banks. However, most alternative funding sources to the Federal Home Loan Bank advances tend to create similar funding concentrations as well when used in material volumes, because they have similar behavioral characteristics. Some bankers are tempted to underestimate the risk of concentrations when using

primarily collateralized borrowing. But bankers should be aware that a typical response from a collateralized lender, such as the Federal Home Loan Bank, is to reduce credit availability, or the advanced rate applied against the collateral base, as the condition of the borrowing bank declines. A reduction of the advanced rate on collateral or haircut reduces the availability of funding to the bank. In other words, the Federal Home Loan Bank may require more collateral for every dollar advanced, or they may seek custody of the collateral.

We have also noted a dramatic increase in the use of Internet deposits, deposit brokers, CD listing services, and nationwide advertising campaigns. This means that some bankers do not know their customer base as well as they did in the past. And it increases the need more than ever before for bankers to monitor concentrations of wholesale funding that is both credit and rate sensitive and to implement the appropriate limit structures to ensure that the risk of concentrations is properly controlled.

If you will turn now to slide 44, I will talk about the next important lesson learned, understanding structured advances from the Federal Home Loan Bank. In an effort to minimize the cost of funding from the Federal Home Loan Bank, I see many bankers use advances that have call features that may be exercised by the Federal Home Loan Bank. Banks borrow from the Federal Home Loan Bank by issuing them a note, and by paying a lower rate, the bank essentially sells the Federal Home Loan Bank an option that allows FHLB to recall its funds from the bank after a defined period of time. Exercising this option in effect terminates the financing arrangement. This option

may be referred to as callable or convertible depending on the terminology used by the local Federal Home Loan Bank.

Much of the term funding at community banks is centered in these structured Federal Home Loan Bank advances. Bankers should be diligent in their use of convertible advances. The key here is to understand the risk characteristics of the product. If, for instance, you borrow at 6 percent and rates move to 5 percent, you won't get the opportunity to reprice to a lower cost of funds, because the Federal Home Loan Bank will not exercise the call, and you are locked in until maturity. If rates move higher, for example, if they go to 7 percent, the Federal Home Loan Bank will exercise its option and terminate the arrangement. This effectively requires the commercial bank to reprice new funding at a higher cost. This means you must carefully weigh whether the initial reduction in the funding cost for a convertible advance is an adequate reward for the possible negative effect that you experience if rates change.

I often see these callable or convertible advances being used by banks that seek to increase their return and also those who are engaging in leveraging strategies. These banks use Federal Home Loan Bank advances that have a call feature to minimize their funding cost. This enables the banks to show a substantially larger initial interest rate spread to whatever asset they purchased or funded with the proceeds. But keep in mind that these spreads decay and disappear, if the funding is called and repriced at a higher rate. Or conversely, the spread decays, because the funding

is not called, rates are declining, and the asset prepays, requiring the repricing of the asset in a lower rate market.

These two examples are illustrated in the cash flow analysis on slide 45. In this simple example, we see the cash flows in the third year of a bond investment and a Federal Home Loan Bank advance when rates change. This example shows that once the bond and the structured advance are eligible to be called, the net cash flows will decline and even become negative in both a rising rate scenario and a falling rate scenario. This is because the bank in this example has sold an option on the investment and on the funding. The compensation to the bank for selling these options comes in the form of a higher initial investment yield on the security and a lower initial funding cost on the advance. But when rates rise the option on the advance is exercised, while the option on the bond is not. The bank must then obtain replacement funds in a higher interest rate environment, although the yield on the bond remains constant. This reduces the net cash flow on the transaction. When rates fall, the issuer of the bond exercises this option by calling the bond, even though the cost of the advance remains constant. The bank then must reinvest the proceeds at a lower interest rate environment. Again, this reduces the net cash flow on the transaction.

If you will look at slide 46, as you would expect, the value of this transaction declines in both a rising and a falling rate environment. My point in sharing these examples is that, the bank choosing to sell options with either its assets or liabilities or both, must understand and be willing to accept the negative effect that a change in rates will have on their cash flows and on the value of the

transaction. With the recent reductions in interest rates and market rates, this is a lesson that many banks are learning and learning well.

I also want to point out that preparing analyses similar to those you see on slides 45 and slides 46, prior to initiating an investment purchase, is consistent with the interagency statement on investment securities. It is really a matter of sound banking practice.

Now follow me to slide 47 and we will talk about the third lesson, the importance of dynamic forward-looking risk measurement tools. In the old days when community banks were virtually 100 percent funded with local retail deposits, banks got by with very simplistic ratio measures of liquidity. Most of you probably remember the old liquidity ratio. I know I do. Some of you may still be using it today. But as times change and liquidity risk measurement becomes more challenging, a measure that is more dynamic than static balance sheet ratios are needed to ensure proper liquidity risk management. Balance sheet ratios are snapshots of the past. They really do not provide a good measure of how well a bank can meet its funding requirements, because the ratio does not consider what projected loan funding will be or what funding instrument will be coming due, and how much of that will actually roll over.

Well-managed banks that I have observed develop measurement tools, such as needs and sources, which project potential funding needs and identify the sources that will help meet those needs. In the needs and sources analysis, the banker can see clearly projected needs for the near term, available sources, and whether there will be a

shortfall or an excess in capacity. Also well run banks ensure that any new business, such as a loan or deposit program, are incorporated or modeled to determine their impact on liquidity before the program is launched. I have frequently seen banks embark on a significant loan growth strategy without using its measurement tools to model the impact of the strategy on its liquidity. And I have seen banks that use measurements that do not fully incorporate the volatility of the funding that they depend on. This is particularly pronounced in banks using credit and rate sensitive funding.

We believe it is very important that banks must be diligent in measuring the liquidity they believe will be available to meet their funding needs. Given the challenges bankers have today, such as managing the risk of structured funding, and the decline of asset liquidity, static measures are just not sufficient for banks to effectively manage liquidity risk. And as Kathy mentioned, there are reports that you should consider, which are in the appendix of your handout.

Now if you will look at slide 48, I will talk about lesson four, the importance of accurate cash flow reporting. The cash flow or funding GAP report has been around for a long time and is used by many bankers. So I am sure many of you are familiar with it in some form or other. This used to be a relatively simple concept, scheduled payments or maturing balances would be slotted in the appropriate time bucket. But now things are much different. As I mentioned earlier, bankers are now managing options on both sides of the balance sheet. That is, if the Federal Home Loan banks can call its advances, if rates rise, and

assets, such as large loans and mortgage-related investments, can pay off early. This causes cash flows that are variable and more challenging to predict. Many banks still prepare liquidity cash flow reports as they did in the old days, based on contractual maturities of assets and liability. Since changes in the rates may cause these cash flows to behave differently than their contractual terms, the preparation of cash flow reports under the old assumption may cause inaccurate projections of cash flows. So banks must project their cash flows accurately, considering the composition and behavior of assets and liabilities, and how these options in assets and liabilities may be exercised under changing interest rate scenarios.

Now we are looking at slide 49 and lesson five, the importance of implementing meaningful risk limits as a risk control tool. As Kathy noted earlier, risk limits are a good risk control tool, provided that they are meaningful, monitored properly, and enforced. As community banks increase their level of wholesale funding, the need for good risk limits becomes more important. We see a number of community banks operating with material levels of liquidity risk, but without the benefit of a good risk limit structure. As a result, several banks have experienced funding problems, because they became reliant on a single funding type, source, or maturity. These banks worked out of these problems for the most part, but the expense and the grief could have been avoided, if they had operated under some simple limit structures. For example, I see banks that have sizable amounts of Federal Home Loan Bank advances or CDs that mature in a specific month or on the same day.

In these banks, the rollover risk of a large portion of the bank's funding could have been reduced by establishing limits on the amount of funding that matures at a given time. This would prompt bank management to ladder maturities of its wholesale funding advances, or possibly CDs, and reduce the likelihood that a significant amount of funding would be up for renewal at the same time. Although, many banks have limits of some kind in place, most are balance sheet ratios used in the past when banks were fully deposit-funded and mostly by retail customers. Many tie to the static measures we just mentioned. In those cases, as the bank's funding structure shifted materially, we expect to see a set of limit structures that would prevent the bank from becoming overly exposed to liquidity risk.

Such limits might include percent of funding of one type or to a single source, percent of cash flow coverage, percent of funding maturing in the short-term and minimal level of asset liquidity. Simple limit structures remain appropriate for community banks that are still funded with stable, retail, low cost funding. However, we expect more comprehensive limit structures in banks more reliant upon wholesale funds that are highly rate and credit sensitive.

And finally, go with me now to slide 50, and I will tell you about lesson six, and a critical lesson learned by bankers: the necessity of developing a viable contingency funding plan. We found a number of banks still operating without the benefit of a well-defined contingency funding plan. Some banks have referred examiners to advised lines from correspondent banks or others as the basis of their contingency funding plan. I have also seen community banks look to Fed funds lines at correspondent banks as

their primary or sole contingent source, even though the banks have never drawn a dime under those lines. I have talked to the Fed funds desk managers for some of these upstream correspondents. They told me that usually many questions and red flags are raised when a community bank suddenly shows up for a large draw on its line. So, although the Fed funds line may indeed be a contingent source of funding, banks must be diligent in determining their viability as a source, if the banks' liquidity position and financial condition declines.

Other banks have designated the Federal Home Loan Bank line as the contingency funding plan. This is usually based on the initial letter of the Federal Home Loan Bank that tells the bank of its potential borrowing capacity, given its amount of available collateral at that point in time. But in many cases, banks had already drawn most of their advised lines and had very little collateral available to use in the event of a liquidity problem. And, frankly, these were simply advised lines that the Federal Home Loan Bank may choose not to honor depending on the bank's condition and the availability of its eligible collateral. I have also seen community banks list securitization as a contingent funding source, even though they had never securitized, had no expertise in securitization, and were unaware of the amount of time and the cost it takes to complete a securitization.

As Kathy already pointed out, the contingency funding plan is a critical component of a sound liquidity risk management program. We expect all banks to develop and maintain a written contingency funding plan. However, a well-defined contingency funding plan is an

absolute must for banks with material exposure to wholesale funding sources. Clearly the level of detail in a plan will vary and will correspond with the complexity of the risk exposure in the bank. Accordingly, we expect banks with material exposure to wholesale funding to develop a contingency funding plan that is more than an advised line of credit with a correspondent or other informal borrowing arrangement. The contingency funding plan is a good opportunity for your bank to look at its funding structure under stressful scenarios and judge the potential liquidity effect of either unfavorable news or changing market condition. One scenario should be deterioration in asset quality. Other scenarios, I have seen in community banks, are downgrades in the Camel rating, declining capital levels, and reduced earnings performance.

I am frequently asked by bankers if I can share with them an OCC-approved plan for their bank. Although each bank is unique and should tailor the contingency funding plan to its specific characteristics, you can find a useful format in appendix B of the new OCC liquidity handbook. A copy of the summary of this community bank contingency funding plan also appears in the appendix of your handouts. This format has been in use for many years and has been shared by examiners with many bankers. This format can and should be tailored to the bank's specific needs and balance sheet. The comprehensiveness of the plan should correspond with the complexity and risk profile of your bank's financial structure. For example, if your bank does not have eurotakings or foreign deposits, you can eliminate that line and focus what you do have such as DDA, NOW accounts, Federal Home Loan Bank

borrowings, and other accounts you may have on your balance sheet. This format provides a template for banks to consider in looking at their liquidity under normal and stressed or crisis scenarios.

Now I want to emphasize that this contingency funding plan summary is a good starting point in developing an overall contingency funding plan. And banks should not do it just once and put it on the shelf to gather dust. As the bank's balance sheet, funding and cash flows are dynamic and change often. We urge banks to make this contingency funding plan summary an integral part of the liquidity risk measurement process. Our hopes are that actions in the contingency funding plan will never have to be initiated. But banks cannot afford to wait until the crisis hits to decide how they will proceed.

I want to thank you for the opportunity to share these important lessons that have been learned as bankers work to meet the funding challenges today and as they prepare for the growing complexities of funding in the future. And with that I will turn it back over to Jim.

Jim: Thank you very much, Joey. And we do have another polling question here. Which one of the following best describes the liquidity risk limit structures at my bank or at your bank. Press 1, balance sheet ratio limits. Press 2 on your telephone for cash flow ratio limits. Press 3 for concentration limits. Press 4 on your telephone for some combination of 1, 2, and 3. Or press 5 if you have none.

Alright, repeating that question, which of the following best describes the liquidity risk limit structures at your bank. Press 1 for balance sheet ratio limits. Two for cash flow ratio limits. Press 3 for concentration limits.

Press 4 for some combination of 1, 2, and 3. And press 5 on your telephone for none. And we will go back to Kathy. And Kathy, I will have the results of this polling question and the others for you in about three minutes.

Ms. Dick: Thank you, Jim. I would like to take a quick moment here to wrap up a few thoughts. I am sure everyone is anxious to get to the question and answer session. If you look on slide 52, we have several take home messages for you. Hopefully, today we have answered some of the questions you might have about why we are concerned about liquidity risk in the banking system: How is it that the OCC expects community banks to establish systems and processes for managing liquidity risk? And what are some of the common issues that arise during our examinations? I think you will agree that there has been a fundamental change in the operating environment. Hopefully this is an impetus for you to evaluate the adequacy of your existing liquidity risk management framework and to think about making upgrades where needed. As I mentioned earlier, the OCC handbook, available on our website might be helpful to you here.

Before we start on the question and answer session, I will ask you to turn to slide 53. There you will see a series of questions that might be worthwhile to ask yourself about the environment in your bank. How much reliance do you place on funds provided by credit- or rate-sensitive providers? What do you know about rollover risk? Do you receive periodic analyses of your large funds providers? Is your contingency funding plan consistent with OCC expectations? And does your liquidity risk management

system provide you with the information that you need for effective risk management and control?

As Jim indicated, we will summarize the polling questions and begin the question and answer session shortly. Let me remind you that we are committed here at the OCC to answering all of your questions. If some questions are not addressed in the time frame we have remaining in this telephone seminar I encourage you to go to the OCC's Internet website and submit your question there. We will ensure that you will get an answer to that question. And with that I will return the program to Jim.

Jim: Thank you, Kathy. Going back and looking at all of the results from the polling, I can tell you that according to our first polling question, we have a minimum of 465 people attending today's presentation. For polling question number one, what best describes your use of alternative funding sources? Forty percent have FHLB only. One percent have Internet deposits only. One percent have broker deposits only. Thirty percent have some combination of 1, 2, and 3. And 10 percent have none at present, but plan to use those sources in the next 12 months. And 19 percent have none and no plans to use them in the future.

Turning to polling question number two, for banks using FHLB advances, which of the following best describes your use of putable, callable, convertible funding? Sixty-seven percent said none. Nine percent answered that all advances contained these features. Thirteen percent said that 50 percent or more contained these features. Twelve percent answered that less than 50 percent contained these features.

Going on to the next polling question, what best characterizes the contingency funding plan at your bank? Forty-four percent have a written plan, updated in the last 12 months. Six percent have a written plan, not updated in the last 12 months. Twenty-nine percent have an informal plan, updated in the last 12 months. Eleven percent have an informal plan, not updated in the last 12 months. And 10 percent have no contingency funding plan in place at this time.

For the last polling question that asks, which of the following best describes a liquidity-risk limit structure at your bank. Fourteen percent have balance sheet ratio limits. Two percent have cash flow ratio limits. One percent have concentration limits. Seventy-eight percent have a combination of 1, 2, and 3. And 5 percent answered with number five, which is none.

And that finishes the polling questions and polling results. Now we will open it up for questions and comments from the audience. If you have a question or a comment that you would like to share with our panel, simply press 1 on your telephone keypad and that brings you into the lineup in our system. When your turn comes, I will call on you by the city and state and the first name of the person who registered at your site. If your question is answered before it is your turn, press the pound sign on your telephone keypad and that will take you out of the lineup. If you are listening on a speakerphone, pick up your handset when you ask your question, so we can hear you better.

When you replace the handset after your question, remember to press and hold the speakerphone button, so

that you do not become disconnected. But if you should become disconnected for any reason, simply redial and reenter your PIN number. You will be reconnected to this program.

So once again, if you have a question or comment to share with our panel, press 1 on your telephone. You can press that now and get into the lineup. If your question is answered before your turn comes up, pressing the pound sign will remove you from the lineup. You can also fax in your question to 715-833-5469. And I will ask your question for you. Again the fax number is 715-833-5469.

Let us hear from our first caller and he comes from Portland, Oregon. And this is John's site. So Portland go ahead.

Portland: Hi, everyone I am John from Centennial Bank. You mentioned a lot about the Federal Home Loan Bank, and I appreciate all of that. According to my notes, you made no mention of the Federal Reserve and, at our bank, the Federal Reserve is a big part of our contingency funding plan. The problem we have is that we are not a national bank, and my predisposition is to test that once in a while to make sure that we have the procedures in place to smoothly make use of the Fed. But there's a lot of resistance to do that because there's all sorts of red flags that go up and we usually get a telephone call from San Francisco. So would you comment on the Federal Reserve, and how you view its use in liquidity planning.

Mr. Sage: Hello, this is Steve Sage. The Federal Reserve discount window is a very valid tool for use as a last resort, but it will lend only to banks from which it knows it can be repaid. A problem bank resolution

timeframe is now required under FDICA that fairly strictly limits the time that a bank can borrow from the discount window. If a bank is seriously undercapitalized, it can only borrow 60 days during any 1 90-day period. If the bank is critically undercapitalized, it can borrow only for five days after the date that it becomes critically undercapitalized. So those limitations have to be considered in your contingency funding plan. It indicates that a bank should try to avoid using emergency funding that way.

Portland: Thank you, Steve. I did not realize that there were time limits based on capital. We happen to be well into the well-capitalized category, but none the less that is certainly an issue.

Mr. Sage: Yes.

Portland: Thank you.

Jim: Thank you very much. If anyone has a question or a comment for our panel, press 1 on your telephone keypad and that brings you into the lineup here in our system. I will call on you by the city and state and the first name of the person who registered at your site. At this point, it does not look like we have anymore live or faxed-in questions, so I will turn the program over to Kathy or any of the panelists for any additional comments.

Ms. Dick: Thank you, Jim. Let us take a minute to recap some of the things we talked about earlier. Speaking for the Comptroller and the other speakers on the call, I would like to thank you for joining us. We appreciate your time and hope that the insight into how we, at the OCC, think about liquidity risk has been helpful. More importantly, hopefully some of the issues we raised today and the risk management concepts we spoke about might

be helpful as you think about the quality of the risk management process in your individual bank. We have tried to answer the questions you have had and most certainly we will be happy to take anymore of those questions now. Or, again, if any have been faxed in to Jim, or if you prefer a more discreet process, feel free to use the OCC's Internet website.

Jim: If anyone has any questions or comments as Kathy mentioned, merely press 1 on your telephone. That brings you into the system and I will call on you by the city and the state and the first name of the person who registered at your site. Let us go to Jeff's site at Lake Jackson, Texas. Lake Jackson, go ahead with your question.

Lake Jackson: Can we get a print out of the polling results that you had. You gave them so quickly that we could not take them down. I was wondering if you could fax them to us?

Jim: Yes, we can provide those to you. Kathy will these appear on a website?

Ms. Dick: Yes, we will put those on our OCC website.

Ms. Dick: For those of you not familiar with the OCC's website, the address is occ.treas.gov.

Jim: Those results will appear within the next few days, or within a week. Let us again ask for questions or comments if anyone has anything that you would like to share with us. Again all you need to do is press 1 on your telephone keypad, that brings you into the system, and I will call on you by the city and the state and the first name of the person who registered at your site. You could also

fax in a question at fax number 715-833-5469. Let us go to Newark, Ohio, to Paul's site for another question.

Newark: Hello. This is Paul Turner from Park National Bank. We do a fairly extensive simulation analysis, and most of these bullet points that I am reading will be embedded in that simulation analysis. So will there be more scrutiny in an examination of the simulation and its assumptions? Or are you looking for additional reports, which, in my opinion, will amount to overkill? What I am really asking is whether simulation for the banks that are doing it, I imagine it's everybody, will become even more important in assessing liquidity risk?

Mr. Drennan: This is Mike Drennan. Basically, if you are running a good simulation that picks up your embedded options, as Kathy mentioned, and generates a good cash flow report, we will not require anything additional, but that would be good for generating a cash flow reporting tool. But if you use borrowings and you need availability reports and similar items, obviously that would be different. However, we would not expect any additional reports as a result of this seminar or what has been otherwise provided. What you have is capture and exposure reports.

Newark: Yes. We have Home Loan Bank advances and convertible advances, and we have a contingency funding plan in place. It seems that after reading through the handouts quickly, that to "pass this liquidity test," one must provide volumes of additional information. That will require some additional work and manpower or man-hours that frankly I believe we are expending daily anyway and, to document, I would

consider to be busy work. And so I am hoping that the examiner will not come into that area and expect to see a whole new set of reports that we currently do not do.

Mr. Johnson: Paul, this is Joey Johnson. A brief comment on what you just said. Certainly, when we come in and look at your liquidity risk measurement processes, we will consider them in light of the types of risks that you are taking on. And you said you are doing simulation. I presume that is for interest rate risk.

Newark: Exactly.

Mr. Johnson: You must keep in mind that the assumptions you build into your interest rate risk simulation may differ from those that you would use to determine the cash flows that are being thrown off when you determine liquidity risk. As you go through and determine the other stress scenarios we were talking about, assuming that you have an event or possibly a decline of asset quality, or something that would show a deterioration in your contingency funding plan, those assumptions will be different.

I do not know what model you are using. You do not have to identify it, but I know many of the models enable you to build in assumptions when you determine cash flow and various stages of stress.

Those are the major items that we are discussing relative to liquidity measurement: X that you can understand what cash flows are coming in, what cash flows are going out, and perhaps any growth you may have assumed in your analysis, so you can determine if an excess remains when you are done. If you have the risk measurement tool in place that can give you that

conclusion, and you are comfortable with it, that is what you must do. You must be able to measure routinely, so that you and your board know that you have adequate capacity to accomplish the goals in your strategic plan, in your growth strategy. That is what we are talking about.

Mr. Johnson: Hopefully, no busy work.

Newark: Thank you. So you would be ok with some measurements of a macro standpoint. I mean I would not be excited about seeing advance number one versus assets number one and comparing that on an individual line item-by-line item basis. I see no benefit whatsoever to doing that.

Mr. Johnson: Well, hopefully, most of the tools that I have seen in banks, and some of the well-managed banks that I have examined, manage cash flows for set periods. For example, estimating 30 days, 60 days, 90 days, so banks know how much excess capacity they have or how much deficit they expect to have. They must determine that amount and prepare now to fund those needs. So no, I do not expect you to have a micro comparison of one liability.

As long as you have a good analysis that can match up and show your overall funding for periods of time, looking ahead. How much funding do you have available? And how much will you need? I hope that answers your question.

Newark: Yes, it does. We do that all the time for investments and cash flow projection, and it tells us, from a funding standpoint, how many additional securities we must buy or not buy. But that is only one component. So all I see really is this X is taking that, adding to it the rest of

the assets, and determining our funding capacity and what are our future funding needs X as long as that comes out and then we compare that to our available sources of funding. I am envisioning doing that, but from more of a macro perspective, and, hopefully, that will be acceptable.

Mr. Johnson: That sounds like you got it right.

Mr. Robinson: This is John Robinson. Let me add one more item. Typically those types of models do not include as one of the scenarios the deterioration of bank conditions. And that could well be an important scenario for you to consider that may require you to do some different kinds of scenario testings.

Newark: You said bank conditions, our credit-worthiness basically.

Mr. Robinson: Right, exactly.

Newark: That is a good point. I agree with that. That may require a scenario write up or scenario analysis, hypothesizing that if such were to happen, this and the other sources or other things are what we can do.

Mr. Robinson: Right.

Newark: Thank you. I appreciate that.

Jim: Thank you very much caller. Let us continue on to Moose Lake, MN. And this is Larry's site, so Moose Lake go ahead.

Moose Lake: Thank you. In the contingency funding plan portion of the presentation, I received the impression that we should consider sources beyond Fed funds lines of credit and Federal Home Loan Bank advances. At this point, we have a substantial amount available to us with those two sources. What other funding

sources should we consider that are being used by the industry?

Mr. Johnson: Thank you, Moose Lake, MN. This is Joey Johnson. You should look at the various alternatives that are available either within or outside of your area. You mentioned the Federal funds line and Federal Home Loan Bank borrowings as those that you include in your contingency funding plan. But first you must be aware that those sources can disappear when you need them the most, particularly if you are depending upon them to be your fallback, if your bank's conditions deteriorate or you cannot find funding elsewhere. Certainly you can look to the broker market. It is available to you, although it might not be your first choice. You can possibly look at that market and from it bring in large amounts in a short period of time.

You may also consider your options from a retail standpoint. Certainly it takes longer, but you can take action to raise retail deposits promptly. But you must decide carefully what premium you are willing to pay for those retail deposits to raise the amounts that you need in a short time. You should also know what asset liquidity you have available to you. Do you have anything that you could convert into funding if you needed it. Also do you have anything for the repo market or otherwise that you can borrow against. Learn exactly what may be available to you. Does anyone else have any thoughts on that?

Ms. Dick: This is Kathy Dick. I would add one thought here for clarification. With respect to the Federal Home Loan Bank advances, I think the comment Joey made earlier in his section was that we often see those

listed as a contingent source, but, in fact, the line is already drawn upon. Remember that in your bank if those lines are not drawn, you have that available as a contingent source. The critical issue will be understanding the terms of that borrowing arrangement with your Federal Home Loan Bank provider.

Mr. Johnson: This is Joey again. Often, when I talk to bankers they mention that FHLB letter. Typically, it is an advised line set up when the bank first applied with FHLB. In talking with FHLB lenders, they will evaluate their particular relationship with the bank, anytime the bank makes a withdrawal. So if the bank's condition is deteriorating, the amount that is shown on that letter may or may not be the amount that the bank can obtain. The collateral that the bank has chosen to use could also cause its problems, the quality of the collateral could be deteriorating. So the bank must determine the viability of its scenario at the Federal Home Loan Bank when trying to seek funding in a deteriorating scenario.

Moose Lake: Thanks.

Jim: Thank you very much, caller. And we have time for one more quick question. Let us go to Houston, Texas. And this is Michael's site. So Houston go ahead.

Houston: Thank you. My name is Greg. And I am with Texas First National. In what kind of time line do you examiners expect us, as banks, to implement and use all the necessary forward-looking tools that you are presenting today?

Mr. Johnson: This is Joey. When we go into the banks now, we expect those tools to be in place, and their comprehensiveness and sophistication to mirror the

complexity of the bank's funding. If you are solely a retail-funded, totally core-deposit bank, probably your tools will not be nearly as complex as if you had a significant level of wholesale funding, such as a Home Loan Bank or Home Loan Bank borrowings with optionality, such as the convertible feature. But you really must consider the time line today. You must look at your balance sheet, all banks do, and determine whether you have enough information to make you comfortable that you have enough funding available to meet your current and prospective needs. You also must know you have enough funding available if there's a change, event, or a deterioration in the quality of the bank, or in the perception within your market. You also should consider whether you have any concentrations of funding that could rapidly disappear. Those issues must be included in the types of analysis that you do to determine your present and future kinds of funding and to plan for alternative funding sources if needed.

Houston: I understand that. I remember looking at some of this in the late '80s, early '90s, and in the regional banks. But I am trying to understand that window, will there be a small bank/large bank view of this? Much like what has occurred with interest rate risk over time.

Mr. Johnson: What is surprising about this, is that what community banks are doing today looks common to what the larger banks originally used to do. Community banks are discovering more options on the funding side of their balance sheet that probably were not there years ago. They were mostly solely retail-funded. What I see today is that the Home Loan Bank borrowings and other funding sources enable banks to get cheaper funding initially. But

that carries the risk that the funding may disappear, and the bank will be at the mercy of the market. The market reprices loans at a much higher rate. And if the lenders are all setting that against some asset, any margin or spread that the banks had on whatever deal that they have set up will compress and become negative in some cases.

Houston: We saw that last year with the stock market returns and competitions.

Mr. Johnson: Yes, absolutely.

Houston: My last question deals with core deposits. Are you defining those as they appear on the call reports, *e.g.,* the bank performance analysis that includes regular or small CDs?

Mr. Drennan: Greg, this is Mike Drennan. Normally, when we refer to core deposits in the context of liquidity, we are looking primarily at those deposits that truly are core to an institution, which typically would be your nonmaturity deposits. Bankers should look at their deposit structure and customer base and understand their customers. They should probably segregate some of their deposits into core or nonsensitive.

Houston: That is what I was hoping for. We have some flexibility there to define core, because we have numerous jumbo CDs, and they tend to be more core than our nonjumbo CDs. And that is why I wanted to make sure that I had some flexibility.

Mr. Drennan: Yes, and that is a reason Kathy mentioned earlier in her section that we were trying to get away from the strict use of terms, such as wholesale, retail, core, and so on and so forth, and look more at rate

sensitive, credit sensitive, and those types of assets of the risk.

Jim: And this is Raina's site. And so Miami, go ahead.

Miami: Do I talk already?

Jim: Yes. Go ahead. Speak up please.

Miami: We would like to know which lines in the call report are mapped to the lines in the Canary report? Is there a report that you could give us that has that information?

Ms. Dick: Yes, this is Kathy Dick. I am afraid that we do not have that information available as part of this telephone seminar. You can access your Canary information on the OCC's website, and there are definitions provided on the website about the contents of the Canary report. If you have specific questions, I will give you Mike Drennan's number, he is on the call today, and he can perhaps guide you if you are trying to do something with call reports. That number is 202/874-5670.

Miami: Our second question concerned nonmaturity deposits. Is there a tool that we could use to calculate their maturities, and where could we place it in a liquidity gap report or in a cash flow analysis?

Mr. Drennan: Hi, my name is Mike Drennan. Probably the best answer for that question is that since nonmaturity deposits vary so greatly, it's important for each bank to understand the behavior characteristics of its deposit base. You can do some fairly basic retention analysis, which looks at deposit balances over time X quarterly, or monthly, even is better. That would give you

some idea of the trends in various interest rate environments. Does that answer your question?

Miami: Yes, that is fine. Thank you.

Mr. Drennan: There are other more quantitative processes you can use and, if you want to call me later, we can talk about that, but I think for many banks, particularly small ones, a fairly basic retention analysis would probably be sufficient.

Miami: Right.

Mr. Drennan: Plus your institutional knowledge to make those kinds of judgments.

Miami: I understand that for an interest rate sensitivity report, but for a liquidity gap report, would you treat it the same way?

Mr. Drennan: It would be similar. The only difference might be looking at whatever portion of your nonmaturity deposit structures might be credit sensitive. In most cases, it is probably not real high.

Miami: Thank you.

Jim: Thank you very much, caller. Let us continue. We will go to the Bronx in New York. This is Al's site. So Bronx, go ahead.

Bronx: Core deposits. What levels cause concerns or give comforts?

Ms. Dick: This is Kathy Dick. Could you expand a little more on what type of question we might respond to?

Bronx: I think the question really is focused on core deposits. Most community banks hopefully have higher levels of core deposits than larger banks.

Ms. Dick: Right.

Bronx: When you are looking at your Canary reports and at the core deposit level of a bank, at what level do you experience discomfort as opposed to being comfortable about the sophistication of the program the bank must put in place.

Ms. Dick: I will make several comments and others may wish to join me. A few things to keep in mind, first, about the Canary ratios. We are looking at call report information, and since those are aggregate financial statement reports, we will not get any information about the behavior of your account. So when we look at core deposits, we must make some broad assumptions. We really want our bankers to think about the sensitivity of those deposits, which will vary from bank-to-bank. And so you almost must perform your own analysis of the deposit base. You must measure the rate sensitivity and credit sensitivity of those deposit providers, because, often, certainly in rural areas, you can have deposit bases that show little movement through significant rate or credit quality changes. There is no magic number.

Bronx: Is there a core deposit ratio that indicates that a bank has a stable core deposit ratio. In other words, you talked about core deposits being at around 68 percent historically. Obviously today that has deteriorated quite a bit. Ratios are only indicators, but we develop our own core deposit ratio based on our bank profile. I only wanted to see if you had some general guidelines that you and the examiners used in looking at this issue?

Mr. Johnson: Yes, this is Joey Johnson. I frequently go into banks and examine them and look at this particular area. There really are not any bright lines on this

as far as what we look at. We put all of the types of funding that the bank has into perspective. I mean we have noted, as have you, that the amount of core funding available to many of our banks has declined or deteriorated. But, in those situations, we look at how the bank employs other alternative funding sources. Are they exploring other ways that they can bring funding into the bank? I am not sure if this is trend will ever reverse. I rather think that it will continue along the track it is on right now. So we look at the bank's other funding sources. If a bank has a low core deposit ratio, we would certainly want to see if asset liquidity is available. Does the bank have other alternative sources available, such as wholesale funds through the Federal Home Loan Bank or perhaps it can gather deposits through the Internet or other methods?

Again those deposits are more credit sensitive and require a higher level of sophistication and ability to monitor and manage. But because we are looking for a particular percentage that causes us sudden alarm, we must view those deposits in the perspective of the other funding sources available in your bank. And again the Canary data is only a starting point for our analysis to determine: Whether we see a decline? What are the trends? What has caused these trends? We take those answers and determine what other sources and availabilities the bank has at its disposal.

Mr. Sage: I would like to add only one more comment. This is Steve Sage. What you are asking really underscores some of our concern with core deposit and ratio analysis in that, not only are core depositors typically decreasing in volume at banks, but also they are increasing

their knowledge and understanding of financial risks and markets. And so they are more knowledgeable about whether or not they would really have any risk at a bank. They tend to be more credit sensitive than they were a few years ago. So they are a slightly higher risk, although they still represent a low risk. They are slightly higher than they used to be, and there are not as many of them. Those facts must be accounted for when you are thinking about your contingency funding plan and your potential funding needs in a deteriorating environment where there might be increased credit risk to those depositors.

Bronx: So basically if I were to say to you that a bank has a core deposit level of 65 percent and that level has been stable. That is not necessarily meaningful to . . .

Mr. Sage: Exactly. I think that is right. You know ratio analysis is simply not sufficient in and of itself to really determine whether it is okay or not.

Mr. Johnson: This is Joey again. I wanted to mention one other thing. Steve is absolutely correct that it shows you what is happening in the past. You must determine what kind of cash flows you will have for future liquidity. What are your projections? What do you think will be coming in? What kind of growth strategies do you have? And how much can you fund using those traditional core deposits versus having to seek funding from other sources. I hope this answers your question in the Bronx.

Bronx: I think so.

Jim: Thank you very much, caller. Let us continue on to Caynen, Connecticut. And this is Melanie’s site. So Connecticut go ahead. Caynen, unmute your telephone and go ahead with your question or comment.

Caynen: What does the OCC consider to be the best way to calculate the borrowing limits for Federal Home Loan Bank advances? And should there be separate limits established for callable advances?

Mr. Johnson: This is Joey, could you be more specific? When you say calculate the borrowing limits are you talking about how much that the Federal Home Loan Bank would be willing to lend you or how much we would determine as excessive for your bank?

Caynen: We currently have a borrowing limit, and we use as our guideline, a percent of our borrowing capacity calculated quarterly. But I do not know if that is really the best way to go about establishing a limit.

Ms. Dick: This is Kathy. First, I would say that having a limit for your total borrowing capacity is probably a reasonable way to think about your day-to-day liquidity management, that is one of the issues we talked about. With regard to your second question on callables?

Caynen: Yes. Should we establish a separate limit for what percentage is too high to set for callables?

Ms. Dick: I think that is again probably a prudent way to think about how you use callables. You are really thinking about various types of concentration limits. How you can reduce your reliance on one particular provider or a type of product. There are no bright lines or magic answers for what that number should be, but I think that the concept of having those types of limits is prudent.

Mr. Johnson: This is Joey. Just to chime in on that. As concerns the callables, if you will be engaged in that, you must use the processes at hand and be able to measure the impact. So you will really have to look and

see how much risk you are willing to take to bring in those types of borrowing because they do have optionality in them and they can be called away. And you must determine the effect on your bank of those being called as rates rise and as rates decline. So it is not merely an absolute number of dollars that you are borrowing, it really is how much risk is being brought into the balance sheet by borrowing with that kind of instrument.

Caynen: That goes back to weighing the pros and cons that you talked about.

Mr. Johnson: Absolutely.

Caynen: Now I have another question. As far as liquidity is concerned, we do not currently use available-for-sale corporate bonds and agency preferred stock in our liquidity, but can they be considered liquid assets?

Mr. Drennan: Hi, this is Mike Drennan. You should look at the market availability and the liquidity in the instrument. You know as you use your measurements, that they could be used probably as a source of secondary liquidity to the extent that the market would be conducive for you to go out and liquidate.

Caynen: Okay, thank you.

Mr. Drennan: Does that make sense?

Caynen: It does.

Jim: Alright, thank you very much, caller. A quick reminder to folks to speak up a little bit louder so that we can hear you. Let us go onto Lockhart, TX. And this is Melvin's site. So Lockhart go ahead.

Lockhart: I have only a comment. One topic we talked about is core deposits. And one aspect of those is personal savings. Recently I attended a seminar, at which

they questioned the negative savings rate. It was said that in that rate we must include, for accuracy, the treatment of durable goods, cars, and large purchases, as well as the amount, plus or minus, of employer pension contributions. It was also mentioned that the capital gains tax was not used, but that taxes paid on the capital gains from the income was. And, according to the presenter's information, if you included that, instead of being a minus .1 percent plus or minus it could be as high as 14 percent over the last several years. I wonder about that, because frankly we have not seen a reduction in our core deposits at all. As a matter of fact we have seen them increase slightly.

Mr. Robinson: This is John Robinson. I believe the savings rate to which you refer from the information you obtained at your seminar is really a type of macroeconomic view of savings in the overall economy. It is not really the types of savings rates we're talking about here.

Lockhart: They were referring to the personal savings rate.

Mr. Robinson: Right. And that may well be overstated or understated in the overall macroeconomic data. We are not really prepared to comment on that. It is a different subject. But certainly some banks have not seen their core deposit ratios decline. They do manage to keep pace with their loan growth. With the aggregates that we look at for national banks and for banks in general, that figure has represented the market decline that was quite noticeable for the last 10 years. So even though it may not

have affected your bank in the same way, it certainly has been a general trend in the banking industry.

Lockhart: This is a follow-up question. Do you think there is any possibility of using a more realistic savings rate in the future? Or will we continue to use this one?

Mr. Robinson: You mean in macroeconomic terms?

Lockhart: Yes.

Mr. Robinson: I am afraid I cannot comment on that. Sorry.

Lockhart: Thank you.

Mr. Drennan: This is Mike Drennan. This is one reason why we encourage all of our banks to look at the behavioral characteristics of their funding sources and deposit structures, and that would include your savings. For that reason and because different areas of the country are different, they will be affected by way you treat your customers and price your deposits.

Jim: Alright, thank you very much. We have about two minutes remaining in the program. At this point, we will turn it over to Kathy Dick for some closing comments.

Ms. Dick: Thank you, Jim. I appreciate the questions that came in. Clearly items, such as the contingency funding plan, are on all of our minds, and we will be happy to answer any of your questions. As the Q&A session is done today, I would encourage you to send additional questions to the OCC at occ.treas.gov, and we will ensure that your question is answered. We hope that today's session provided you with more insight into how

we, at the OCC, think about liquidity risk, and more importantly that you have gained some new thoughts on liquidity risk management and the tools and techniques that might be appropriate for your bank. In closing, I appreciate you joining us this morning.

Jim: Alright, thank you very much. This concludes today's telephone seminar entitled, "The Challenges of Sound Liquidity Risk Management: OCC Expectations and Policy," brought to you by the Office of the Comptroller of the Currency, Administrator of National Banks. As a quick reminder, please fill out and return the evaluation forms in the manner listed on them. Your comments and suggestions are important to us. Thank for joining us today. Enjoy the remainder of the day. You may hang up now. Thank you.