November 1988 Senior Financial Officer Survey on Bank Liquidity Practices[1]

To obtain some insights into developments in the funding practices of commercial banks, a Senior Financial Officer Survey of sixty commercial banks was conducted in November 1988.[2] The survey responses suggest several common trends in funding management among banks but also considerable, continued diversity of funding approaches. Over the last five years, most banks have made changes in their funding sources, practices, and strategies—some to take advantage of new market opportunities, others reacting to perceived funding vulnerabilities. Funding analysis has become more sophisticated but has not led to a strong convergence of funding sources or operational funding strategies. Continued diversity appears to be related to different types of market changes over the last five years as well as to basic differences in banking activities across banks.

In the remainder of this memo, the survey responses are grouped to shed light on (1) the composition and stability of the sources of funds to the commercial banking sector, (2) the types of liabilities issued, (3) developments in asset and liability management, including (4) the impact of new instruments and market changes and (5) the role of foreign funding. As background to the survey, a striking change in liability composition over the last five years can be seen in data for the sixty respondent banks from the Call Report.

Individual, partnership, and corporate (IPC) deposits in domestic bank branches have risen significantly as a share of total bank liabilities over the last five years. Rapid growth in NOW accounts has offset weakness in demand deposits, boosting the share of IPC transactions deposits in total liabilities by roughly 20 percent since 1983. Nontransactions deposits also gained, owing to the increased importance of money market deposit accounts (MMDAs), introduced in December 1982. The counterpart to the increase in IPC deposits was a sizable

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[2] The respondent panel to this survey is the same as that for the Senior Loan Officer Opinion Survey on Bank Lending Practice. To analyze some questions, the banks in the current survey have been grouped into those with $7.5 billion or more in total domestic assets and those with less than $7.5 billion. A copy of the survey itself is attached as Appendix A.

decline in the importance of money market liabilities, especially deposits in foreign branch offices and bankers' acceptances.

Shares of Selected Liabilities in Total Globally Consolidated Bank Liabilities
(percent, all respondents)

	Sept. 1983	Sept. 1988
Domestic individual, partnership, and corporate transactions deposits	12.0	14.4
Domestic individual, partnership, and corporate nontransactions deposits	25.7	30.3
Deposits in foreign branch offices	29.2	24.3
Bankers' acceptances	5.8	2.3
Domestic U.S. commercial bank deposits	2.6	1.7
Federal funds and repurchase agreements	10.8	10.5
Memo: Time deposits of $100,000 or more	14.5	10.6

1. Sources of Funds

o Composition of Liability Holders

Just under 45 percent of total bank liabilities was provided on average by consumers.[3] This proportion did not vary much among the major groups of banks—the nine money-center banks, other large banks (asset size greater than $7.5 billion), and smaller banks.

Two significant differences did emerge, however, in the composition of wholesale counterparties. First, nonfinancial businesses accounted for 30 percent of the liabilities of smaller banks versus only about 18 percent of those of larger banks. The complement to this divergence appears in liabilities provided by “other large investors,” usually investment firms and federal, state and local governments. “Other large investors” accounted for 14 percent of larger banks’ liabilities versus only 5 percent of smaller banks’ liabilities. Second, U.S. commercial banks contributed a somewhat larger share to the domestic liabilities of smaller banks. Correspondingly, mutual funds, pension funds, and insurance companies accounted for a

[3] Throughout most of the survey questions, “bank” was defined to mean the domestic consolidated bank.

somewhat higher percentage of liabilities of larger banks, mostly reflecting the funding of money-center banks.

Percent of Total Liabilities Held by Each Type of Investor

Number of Banks (Mean Percent)

	Retail Consumers	Nonfinancial Businesses	Foreign Financial Institutions	U.S. Commercial Banks
All Respondents	49 (43.8)	49 (19.8)	30 (3.2)	48 (8.7)
$7.5B and over	28 (44.1)	28 (18.5)	20 (3.5)	27 (8.2)
Under $7.5B	21 (41.6)	21 (29.7)	10 (1.4)	21 (11.8)

Number of Banks (Mean Percent)

	Thrifts	Mutual Funds	Pension Funds & Insurance Cos.	Other Large Investors
All Respondents	32 (1.7)	34 (5.1)	39 (4.2)	40 (12.8)
$7.5B and over	20 (1.7)	20 (5.1)	24 (4.5)	24 (13.8)
Under $7.5B	12 (1.7)	14 (4.7)	15 (2.1)	16 (5.3)

o <u>Stability of Investors</u>

Banks, when asked to distinguish between the stability of different investors, generally provided similar rankings. Consumers were rated as a very stable investor source by all banks. Nonfinancial businesses were viewed as somewhat less stable, but still well above average. Similarly, almost all banks rated federal, state, and local government funds as showing more-than-average stability. Foreign financial institutions, thrifts, and pension funds and insurance companies were rated as providing nearly average stability, while mutual funds were seen as providing noticeably less than average stability.

Not surprisingly, the rankings that banks assigned to particular types of institutional investors tended to be correlated with the composition of their liabilities. For example, a bank with a relatively large share of its liabilities owed to mutual funds tended to rate mutual funds as more stable sources than did other banks. The biggest divergence in rankings appeared for funds received from U.S. commercial banks. In general, banks were seen as providing average stability, but individual ratings ranged from more stable than average to very unstable.

Stability Rankings of Investors

1 = very stable; 2 = more stable than average; 3 = average;
4 = less stable than average; and, 5 = very unstable.

Number of Banks (Mean Ranking)

	Retail Consumers	Nonfinancial Businesses	Foreign Financial Institutions	U.S. Commercial Banks
All Respondents	54 (1.2)	55 (2.3)	49 (3.4)	55 (3.0)
$7.5B and over	32 (1.1)	33 (2.2)	31 (3.3)	33 (3.0)
Under $7.5B	22 (1.3)	22 (2.4)	18 (3.6)	22 (3.0)

Number of Banks (Mean Ranking)

	Thrifts	Mutual Funds	Pension Funds & Insurance Co.	Other Large Investors
All Respondents	39 (3.2)	49 (4.0)	50 (3.5)	34 (2.7)
$7.5B and over	23 (3.1)	30 (4.0)	31 (3.5)	19 (2.5)
Under $7.5B	16 (3.3)	19 (3.9)	19 (3.4)	15 (2.9)

2. Types of Liabilities Issued

- Standard Instruments

Banks continue to rely on traditional deposit instruments. Nonfinancial businesses tended to hold large CDs, demand deposits (DDAs), and repurchase agreements (RPs) as well as MMDAs. Also mentioned by some respondents were Eurodollar deposits and commercial paper, neither of which is issued by domestic banking subsidiaries. The holdings of mutual funds, pension funds, insurance companies, and some "other large investors" were more concentrated in large CDs and RPs, while the U.S. government held Treasury tax and loan accounts.

Instruments Used by Different Investors

Investors	Instruments Mentioned by More than 5 Banks (ordered by frequency of mention)
Retail Consumer	MMDAs, DDAs, savings deposits, retail CDs, large CDs, NOWS
Nonfinancial Business	large CDs, DDAs, Eurodollar deposits, MMDAs, RPs, commercial paper, retail CDs
Foreign Financial Institutions	federal funds, DDAs, Eurodollar deposits
U.S. Commercial Banks	federal funds, large CDs, DDAs
Thrifts	federal funds, large CDs, DDAs
Mutual funds	large CDs, RPs
Pension Funds and Insurance Companies	large CDs, RPs, commercial paper
Other Large Investors	large CDs, Treasury tax and loan accounts, RPs

Banks in the survey identified several changes over the last five years in the type of instrument held by different groups of investors. According to a number of respondents, institutional investors have moved away from large domestic CDs in favor of Eurodollar CDs, deposit notes, MMDAs, DDAs, and federal funds. A handful of banks, however, reported that large CDs had grown in usage. At the consumer level, significant growth in the use of MMDAs was recorded, along with some increase in retail CDs.

o <u>New Instruments</u>

Medium-term deposit notes, which are corporate debt securities structured like bonds but typically maturing within three to seven years, were cited by many banks as a significant change in funding instrument held by institutional investors. Medium-term deposit notes were issued by more than one-third of the banks in the survey but represent just 1.4 percent of total domestic liabilities for the banks as a group. However, at 10 percent of the banks, medium-term deposit notes accounted for 5 percent or more of domestic liabilities. Deposit notes accounted for an average 3 percent share of domestic liabilities at banks with under $7.5 billion in assets, but this average is skewed upward by a high share at a single respondent. In contrast, deposit notes accounted for less than 1 percent at the nine money-center banks. In responding to this question, banks appeared to include both deposit notes and "bank notes," which some larger banks have issued. Bank notes are liabilities with the same general structure as deposit notes but which are not recorded as deposits for FDIC purposes and hence are not insured.[4]

Medium-term Deposit Notes as a Share of Domestic Liabilities

Number of Banks (Percent of Banks)

	0%	0.1 – 2.0%	2.1 – 5.0%	Over 5.0%	Total Banks	Mean Percent
All Respondents	35 (62.5)	10 (17.9)	5 (8.9)	6 (10.7)	56	1.4
$7.5B and over	19 (57.6)	8 (24.2)	3 (9.1)	3 (9.1)	33	1.2
Under $7.5B	16 (69.6)	2 (8.7)	2 (8.7)	3 (13.0)	23	3.1

Issuance of medium-term deposit notes is up from five years ago. Only 10 banks had issued deposit notes in 1983 and the notes accounted for only 0.5 percent of domestic liabilities at the time.

Medium-term Deposit Notes as a Share of Domestic Liabilities Five Years Ago

Number of Banks (Percent of Banks)

	0%	0.1 – 5.0%	Over 5.0%	Total Banks	Mean Percent
All Respondents	46 (82.1)	6 (10.7)	4 (7.1)	56	0.5
$7.5B and over	28 (84.8)	3 (9.1)	2 (6.1)	33	0.4
Under $7.5B	18 (78.3)	3 (13.0)	2 (8.7)	23	0.9

o Bank Holding Company Funds

Owing to increases posted at four respondents, funds received from the banks' holding companies have gained somewhat in importance on respondents' balance sheets in recent years. While securities issuance (apart from capital instruments) by bank holding companies has increased sharply over the last five years, most of the proceeds have funded the increasing share of assets held in nonbank subsidiaries of the bank holding company. Consequently, the share of

[4] Bank notes, however, are included in the monetary aggregates as non-personal time deposits.

respondent banks' overall liabilities that represent claims by their holding companies rose, but by less than a percentage point. Just seven banks in the survey currently rely on the holding company for more than 5 percent of the funding of their domestic bank offices. The use of holding company funds has been slightly more important at the money-center banks, where holding company liabilities rose from 2 percent to 3.2 percent of domestic liabilities. Nevertheless, there remains wide variation within the group.

Share of Total Liabilities from Holding Company

Number of Banks (Percent of Banks)

	0%	0.1 – 5.0%	Over 5.0%	Total Banks	Mean Percent
All Respondents	17 (31.5)	30 (55.6)	7 (13.0)	54	2.8
$7.5B and over	9 (27.3)	19 (57.6)	5 (15.2)	33	3.0
Under $7.5B	8 (38.1)	11 (52.4)	2 (9.5)	21	1.4

Share of Total Liabilities from Holding Company Five Years Ago

Number of Banks (Percent of Banks)

	0%	0.1 – 5.0%	Over 5.0%	Total Banks	Mean Percent
All Respondents	21 (39.6)	26 (49.1)	6 (11.3)	53	2.0
$7.5B and over	11 (34.4)	17 (53.1)	4 (12.5)	32	2.1
Under $7.5B	10 (47.6)	9 (42.9)	2 (9.5)	21	1.2

3. Developments in Asset and Liability Management

- <u>Liquidity Strategy</u>

Banks evaluate their liquidity positions in a variety of different ways. Five of the banks, all of them large non-money-center banks, relied primarily upon qualitative measures to assess their liquidity position. Another 30 percent of the banks relied mainly upon quantitative measures, a strategy favored somewhat by smaller banks. The remainder, including seven of the money-center banks, relied upon a blend of qualitative and quantitative measures. Diverse qualitative and quantitative measures were cited, with some variant of net purchased liabilities the only quantitative measure looked at by a significant number of banks.

Measurement of Liquidity Position

Number of Banks (Percent of Banks)

	Largely Qualitative	Largely Quantitative	Both Qualitative and Quantitative
All Respondents	5 (8.9)	17 (30.4)	33 (58.9)
$7.5B and over	5 (15.2)	8 (24.2)	19 (57.0)
Under $7.5B	0 (0.0)	9 (39.1)	14 (60.9)

A rough idea of the importance of various funding management practices may be judged by how often banks listed each measurement practice as an element of their liquidity strategy (many mentioned more than one practice). Liquidity-gap management and funding-diversification policies were each mentioned by more than 30 percent of the banks surveyed. Explicit limits on the use of various types of liabilities, such as short-term funds, wholesale funds or market "observable" borrowings (i.e. federal funds), were cited by nearly as many banks. Attention to the liquidity of assets was listed by 25 percent, mostly smaller banks, while about 15 percent mentioned the importance of maintaining an acceptable standing in market perception. Maintaining an acceptable position relative to other banks in their identified peer group was mentioned by about 10 percent of the banks, as was estimating potential borrowing capacity by source. Finally, a few banks mentioned that scenario analysis/contingency planning was part of their liquidity strategy.

About 60 percent of the banks surveyed coordinated their funding strategy with their interest rate outlook, with larger banks less apt to report coordination than smaller banks. Some banks integrated their funding strategy very closely with their interest rate position, while others used their interest rate outlook more loosely to predict changes in certain liabilities, such as their deposit turnover rate.

- <u>Changes in Liquidity Strategy and Position</u>

Sixty percent of the banks surveyed have altered the way that they measure their liquidity position over the last five years, and nearly as many have changed their liquidity objective. Smaller banks were far more likely to have changed their objective than were larger banks, while none of the money-center banks had. In general, banks that had changed their liquidity measurement technique or liquidity objective cited the effects of the growing availability of new hedging instruments, publicity about profitability problems in the banking industry, or growth in the market for loan sales and asset-backed securities.

Eighty percent of the banks surveyed said that increasing attention was being paid to either asset management, liability management, or both as compared to five years ago. Larger banks reported increased attention to asset management somewhat more often than increased attention to liability management, while the reverse was true to smaller banks.

Changed Liquidity Strategy Since 1983

Number of Banks (Percent of Banks)

	Yes	No
All Respondents	33 (60.0)	22 (40.0)
$7.5B and over	18 (56.3)	14 (43.8)
Under $7.5B	15 (65.2)	8 (34.8)

Changed Liquidity Objective Since 1983

Number of Banks (Percent of Banks)

	Yes	No
All Respondents	27 (48.2)	29 (51.8)
$7.5B and over	11 (33.3)	22 (66.7)
Under $7.5B	16 (69.6)	7 (30.4)

What banks understood as asset management varied greatly. Attention to asset management included increased concern about the quality of loans, examination of the scope for loan sales, and consideration of the role that could be played by loan purchases. Attention to liability management included promotion of customer relationships and use of new hedging markets.

At a more qualitative level, three distinct groups of banks emerged from the questions on liquidity strategy. A relatively small group, including some money-center and large regional banks, appeared to be aggressively exploring asset sales and the use of hedging instruments to help manage their balance sheets. A second group, including most of the remaining banks, were more reactive, adapting their existing liquidity management tools in light of the pronounced changes in funding and asset sales markets. A third group, including several banks that reportedly have experienced liquidity difficulties, had put into place quantitative liquidity measures and strengthened their liability management.

Increased Attention to Liquidity Management

Number of Banks (Percent of Banks)

	No Change	More Attention Paid to Asset Management	More Attention Paid to Liability Management
All Respondents	12 (21.4)	31 (55.4)	31 (55.4)
$7.5B and over	10 (30.3)	17 (51.5)	14 (42.4)
Under $7.5B	2 (8.7)	14 (60.9)	17 (73.9)

o <u>Influence of Corporate Structure</u>

The role of the holding company varies across banks, with almost half the survey respondents indicating that they managed their liquidity position solely at the consolidated bank holding company level. Liquidity management at the holding company level, either alone or in combination with management at other levels, was important for almost all banks with significant offshore liabilities or funding from the holding company.

Level of Liquidity Management

Number of Banks (Percent of Banks)

	Domestic Consolidated Bank	Globally Consolidated Bank	Consolidated Bank Holding Company	Multiple Levels
All Respondents	6 (10.9)	7 (12.7)	27 (49.1)	15 (27.3)

4. Impact of New Instruments and Market Change

The banks were asked about the impact of a number of financial market developments on their funding practices and liquidity strategy. While the effects of new hedging instruments appeared to be greater at larger banks in general, other changes appear to have had their greatest impact specifically on money-center banks.

- Availability of New Hedging Instruments

Almost 70 percent of the banks surveyed reported that the increased availability of new hedging instruments had affected their funding strategy, either through interest rate hedging, foreign currency hedging, or both. Generally, the change involved lengthening the contracted repricing period and maturity of liabilities and hedging the bank's interest rate position back to a shorter repricing period. Several banks noted this hedging strategy lay behind the development of their medium-term note and fixed-rate medium-term CD programs. About half of the banks who said that the growing market for new hedging instruments affected their funding strategy also said that their funding strategy was now largely separate from their interest rate outlook because of their ability to hedge interest rate positions.

Impact of Increased Availability of New Hedging Instruments

Number of Banks (Percent of Banks)

	No Impact	Use of Interest Rate Hedging to Change Average Repricing Period of Liability Composition	Increased Use of Foreign Currency Funding Markets
All Respondents	18 (32.1)	38 (67.9)	6 (8.9)

An increase in foreign currency hedging was less widespread. Whereas over half the banks surveyed explicitly mentioned interest rate hedging, only about 10 percent noted foreign currency hedging as a new development.[5]

- Impact of Market and Regulatory Changes

In response to a query about the forces behind change in liquidity management practices over the last five years, the deregulation of retail deposit interest rates was cited most often. Some banks that did not cite deposit rate deregulation as making a significant difference noted that MMDAs were introduced more than five years ago. Whether banks cited deposit rate deregulation as an important factor was largely independent of the size of their retail deposit base or their asset sales.

[5] Of the banks surveyed, 43 percent had some foreign currency liabilities.

The next most cited factor leading to change in liquidity management was the growth in markets for loan sales and asset-backed securities. Two-thirds of the money-center banks noted this factor, while the overall response rate was about 40 percent for other large banks and for smaller banks. Smaller banks were particularly concerned with publicity about profitability problems and cited that item as often as deposit-rate deregulation. A third of the money-center banks also cited industry profitability problems, but only 20 percent of the remaining larger banks found these problems to be a significant factor affecting their liquidity management.

Causes of Increased Attention to Liquidity Management

Number of Banks (Percent of Banks)

	Deregulation of Retail Deposit Interest Rates	Changing Regulatory Capital/Asset Ratios	Publicity About Profitability Problems
All Respondents	29 (52.7)	10 (18.2)	20 (36.4)
$7.5B and over	17 (51.5)	5 (51.2)	8 (24.2)
Under $7.5B	9 (54.5)	5 (22.7)	12 (54.5)

Number of Banks (Percent of Banks)

	Growth in Loan Sales and Assets-Backed Securities	Growth in Off-Balance Sheet Commitments	Other
All Respondents	24 (43.6)	12 (21.8)	17 (30.9)
$7.5B and over	15 (45.5)	7 (21.2)	8 (24.2)
Under $7.5B	9 (40.9)	5 (22.7)	9 (40.9)

5. Role of Foreign Funding

o Importance of Foreign Liabilities

The banks surveyed estimated that an average 70 percent of their funding (at the globally consolidated level) was issued as dollar liabilities at domestic offices. At banks with assets less than $7.5 billion, almost all liabilities were issued by their domestic offices, while domestic office liabilities averaged only about half of money-center banks' funding.

Of funds raised abroad, about 60 percent was dollar-denominated and another 15 percent was issued in foreign currencies and swapped into dollars. The remaining 25 percent was issued and held in foreign currencies. The money center banks issued the preponderance of foreign currency liabilities.

Dollar Share of Liabilities

Number of Banks (Mean Percent)

	Issued in Dollars at Domestic Offices	Issued in Dollars at Foreign Offices	Issued in Foreign Currencies and Swapped into Dollars	Issued and Held in Foreign Currencies
All Respondents	49 (70.3)	45 (17.9)	13 (4.9)	21 (6.9)
$7.5B and over	32 (67.8)	30 (19.3)	12 (5.4)	19 (7.5)
Under $7.5B	17 (95.7)	15 (3.8)	1 (0.1)	2 (0.5)

o <u>Currency Composition</u>

Roughly one-quarter of the liabilities issued in foreign currencies by the 21 respondent banks was denominated in German marks and another one-quarter in British pounds. The Japanese yen was the next most important currency followed by the Swiss franc, French franc, and Canadian dollar.

Currency Composition of Foreign Currency Liabilities

Number of Banks (Mean Percent)

	British Pound	Canadian Dollars	French Franc	German Mark	Japanese Yen	Swiss Franc	Other Currencies
All Respondents	19 (23.1)	14 (6.6)	13 (7.1)	19 (26.7)	18 (16.3)	13 (9.1)	9 (10.9)
$7.5B and over	17 (22.4)	13 (6.8)	12 (7.3)	17 (27.0)	16 (16.1)	12 (9.3)	9 (11.1)
Under $7.5B	2 (56.3)	1 (1.0)	1 (1.0)	2 (13.9)	2 (26.9)	1 (1.0)	0 (0.0)

o <u>Managing Liquidity</u>

Virtually all banks with substantial foreign currency liabilities assessed liquidity separately for their dollar and foreign currency liabilities; about 60 percent of the banks that issued liabilities in foreign currencies, including three-quarters of the responding money-center banks, also assessed liquidity in different foreign currencies separately. About 30 percent aggregated across currencies in assessing their liquidity position while the remaining two banks evaluated their positions both ways. Whether the bank routinely swapped the foreign currency proceeds into dollars did not appear to systematically influence its response to this question.

Treatment of Different Currencies

Number of Banks (Mean Percent)

	Aggregated to Assess Liquidity	Liquidity Assessed Separately for Different Currencies
All Respondents	17 (56.7)	13 (43.3)

Appendix A

Questions for the November 1988
Senior Financial Officer Survey[1]

The Federal Reserve is interested in changes that have occurred over the last several years in the funding practices and funding markets used by commercial banks. This survey targets how and why funding sources may have changed, as well as the broader issue of how banks view their liquidity positions. Our focus here generally is on the activities of the domestic consolidated bank, analogous to the definition of the bank used in the Weekly Report of Condition (FR 2416); only in the final question (#6) is the bank defined differently, as the international consolidated bank.

1. Information on the volume of various types of bank liabilities is reported on several regular reports. This question is intended to fill in some gaps in our knowledge.

    i. As of September 1988, about what share of your total liabilities was composed of medium-term deposit notes? Approximately what was this share five years earlier?

    ii. As of September 1988, about what share of your total liabilities represented funds from your holding company? Approximately what was this share five years earlier?

    iii. Does the total dollar amount of these liabilities due to your holding company typically vary 50 percent or more from quarter to quarter?

[1] The Board's legal staff has determined that responses to these questions are to be regarded as confidential.

2. Please indicate below how the increased availability of new hedging instruments (e.g., futures, forwards, options, swaps) has changed your funding strategy as compared to five years ago. (Please check as many answers as applicable.)
    a. no effect.
    b. has had an appreciable effect on the average repricing period of funding instruments—please note whether it has tended to lengthen or shorten the repricing period.
    c. has significantly changed the composition of liabilities by increasing the opportunities for hedging certain instruments—please list those funding alternatives that have become markedly more important to your bank as a result.
    d. has led to new or increased use of foreign currency funding markets.
    e. other—please explain.

3. i. Please indicate roughly what percent of your total liabilities you would estimate are held by each of the following types of investors.
    a. retail consumers
    b. nonfinancial businesses
    c. foreign financial institutions
    d. U.S. commercial banks
    e. thrifts
    f. mutual funds, including money-market funds
    g. pension funds and insurance companies
    h. other types of large investors (please list)

ii. Please list the types of liabilities (e.g., large CDs, medium term securities) in which these investor groups typically invest at your bank.

a. retail consumers
b. nonfinancial businesses
c. foreign financial institutions
d. U.S. commercial banks
e. thrifts
f. mutual funds, including money-market funds
g. pension funds and insurance companies
h. other types of large investors (please list)

iii. For which of these investor groups would the answer to the last question (3.ii.) have been different five years ago?

a. retail consumers
b. nonfinancial businesses
c. foreign financial institutions
d. U.S. commercial banks
e. thrifts
f. mutual funds, including money-market funds
g. pension funds and insurance companies
h. other types of large investors (please list)

iv. How would you rank each investor group in terms of its likely stability as a funding source for your institution during periods of financial stress, with 1 = very stable, 2 = more stable than average, 3 = average, 4 = less stable than average, and 5 = very unstable?

a. retail consumers
b. nonfinancial businesses
c. foreign financial institutions
d. U.S. commercial banks
e. thrifts
f. mutual funds, including money-market funds
g. pension funds and insurance companies
h. other types of large investors (please list)

4. i. In general terms, how does your bank measure its liquidity position?

a. largely qualitative—please list primary considerations.
b. blend of qualitative and quantitative—please list primary considerations.
c. largely quantitative—please describe one or two of the most useful measures.

ii. Does your bank have an explicit policy or objective for liquidity? If so, please summarize briefly.

iii. Is your liquidity strategy coordinated with your bank's outlook for interest rates?

iv. At what level of consolidation is your liquidity position managed?

a. domestic consolidated bank.
b. global consolidated bank.
c. consolidated bank holding company.
d. other—please specify.

v. How are different currencies treated?

   a. aggregated in assessment of liquidity.
   b. liquidity assessed separately for different currencies.

5. i. Do your current liquidity management practices differ from those five years ago because of any of the following considerations? If any has had a significant impact, please briefly explain in what manner.

   a. deregulation of retail deposit interest rates.
   b. changing regulatory capital/asset guidelines.
   c. publicity about profitability problems in the banking industry.
   d. growth in markets for loan sales and asset-backed securities.
   e. growth in off-balance sheet commitments (e.g., NIFs, other back-up lines of credit).
   f. other—please specify.

ii. In managing liquidity, has the importance of assets or liabilities changed from five years ago? (Please check as many answers as applicable.)

   a. no.
   b. yes, asset management now more important than before.
   c. yes, liability management now more important than before.

iii. Has the way your bank measures its liquidity position (i.e., the answer to question 4.i.) changed appreciably from that five years ago?

iv. Has your bank's policy or objective for liquidity (i.e., the answer to question 4.ii.) changed appreciably from that five years ago?

6. For this set of questions only, the frame of reference is the globally consolidated bank.

i. Please estimate roughly what share of your bank's total liabilities falls into each of the following categories. (Percentages should add to 100).

   a. issued in dollars at domestic offices.
   b. issued in dollars at foreign offices (including IBFs and Edge and Agreement Corporations).
   c. issued in foreign currencies and swapped into dollars.
   d. issued and held in foreign currencies.

ii. Of your liabilities issued in foreign currencies, approximately what share is denominated in each of the following currencies? (Percentages should add to 100).

   a. British pound.
   b. Canadian dollar.
   c. French franc.
   d. German mark.
   e. Japanese yen.
   f. Swiss franc.
   g. other (please specify individual currencies, if significant).