Public Bank Leverage

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What is leverage?

"Leverage is the investment strategy of using borrowed money: specifically, the use of various financial instruments or borrowed capital to increase the potential return of an investment."

https://www.investopedia.com/terms/l/leverage.asp#ixzz4ytYGDcA7

Leverage in the Consumer Context

- A homeowner is able to use $25,000 in cash to make a down payment to purchase a $250,000 home, obtaining a mortgage to cover the remaining $225,000.
- The homeowner has “leveraged” her $25,000 in capital into a $250,000 asset.
- The homeowner’s equity ($25,000) is 10% of the asset value: a 10% leverage ratio.

Leverage in the Banking Context

- Banks use borrowed funds to finance income-generating bank assets (i.e. loans)

- If a bank is required to have a minimum capital ratio (leverage) of 10%, it can use $500 million of capital to sustain assets of $5 billion.

Leverage in the Banking Context

Where do banks borrow their funds?

- Debt issuance (i.e. bonds)
- FRB, FHLB, or other lender to banks
  - Generally for short term liquidity needs
- Deposits

Banks Borrow by Taking Deposits

- A deposit is a form of loan from the depositor to the bank.

". . . drawers [*depositors*] have no money in banks. Only bankers have money in banks. Drawers have choices in action [*claims*] against banks."

W.B. Farms v. Fremont Nat. Bank, 756 F.2d 663 (8th Cir. 1985)

Deposits are the Largest Source of Bank Funding

US commercial banks week ending 11/8/17*

- $16.7 trillion total assets
    - $9.5 trillion loans
    - $3.4 trillion investments
    - $2.4 trillion cash (and deposits)
- $14.9 trillion total liabilities
    - $12.0 trillion deposits
- $1.8 trillion equity

** Source: FRB Statistical Release H.8 11/17/18 (not seasonally adjusted)*

Leverage in Public Banking

- A bank subject to a 10% capital requirement could hold assets (including loans) of up to nine times its capital
- Example:
  - $500 million capital investment
  - $4.5 billion deposits
  - $5.0 billion total assets (including cash, fixed assets, investments, and loans)

Leverage in Public Banking

- Note that allowances must be made for:
  - Liquidity (cash and short term investments and borrowing capacity)
  - Fixed assets and infrastructure (i.e. data processing system, lease or ownership, etc.)

- Thus, assuming 90% loan/deposit ratio, loans are roughly 81% of assets; maintaining borrowing/liquidity capacity could further reduce that amount

Why Deposits?

- As a long term source of funding, retail deposits are cheaper than borrowing in the capital market or wholesale funding from preferred short term lenders such as the FRB or FHLB
- Banks prefer deposits as the average retail jumbo CD rate is approximately 150 basis points lower than FHLB published rates reflecting the wholesale cost of fund for similar terms:

Term	1 month	3 month	6 month	12 month	24 month	36 month	48 month	60 month
Jumbo CD	0.08	0.12	0.18	0.31	0.47	0.62	0.73	0.9
FHLB Advance Rates	1.41	1.62	1.75	1.87	2.06	2.17	2.3	2.41
Difference (CD - FHLB)	-1.33	-1.5	-1.57	-1.56	-1.59	-1.55	-1.57	-1.51

Source: FDIC Weekly National Rates and Rate Caps and FHLB Des Moines website

Where Do the Deposits Come From?

- Public funds?
- Public funds deposits currently collateralized at 50% - 100% and subject to pooled risk (all public depositories potentially liable for public funds losses in other depositories)
    - Depositories with lower than 100% collateral accept higher liability limit for losses in other depositories

Collateralized Public Funds Deposits in Public Bank

- If public bank is subject to collateral requirements, the benefit of leverage is reduced or eliminated

Example:

- $500M capital; $4.5B public funds deposits
- 100% collateral requires $4.5B investment in permissible collateral; thus no loans
- 50% collateral requires $2.25B investment in permissible collateral; thus less than $2.25B loans, and potential liability for other institutions

Collateralized Public Funds Deposits in Public Bank

- Alternate source of collateral: FHLB letter of credit?*
  - FHLB (or any other lender) requires collateral for letter of credit
  - FHLB requirements include obligation to support housing through home mortgage lending or investment in mortgage securities
  - Result: collateral still required; pledged to different party

**Suggested in testimony at prior task force meeting*

Uncollateralized Public Funds Deposits in Public Bank

- Leverage benefit retained, <u>but</u>:
  - Requires change in public funds law
  - No collateral; public funds subject to credit and operational risk of public bank
  - No risk spreading; risk of loss in public bank is borne solely by public funds depositors
  - To the extent public funds are pulled from existing depositories, they move from pooled (spread) risk to concentrated risk that is unsecured

Public Funds Deposits in Public Bank

- Many public funds depositors require services beyond simple deposits:
  - Payment processing (i.e. utility districts)
  - Treasury management services
  - Merchant services

Public Bank Deposits From Other Sources

- FDIC insurance?
  - Adds depositor confidence and safety
  - Increases cost, regulatory burden
  - Reduces leverage benefit
- Uninsured?
  - Risk to public
- Either requires additional marketing, compliance, and operations costs, other hidden savings

Asset/Liability Management Issues in Public Bank Deposits

- Deposits are short term; most municipal loans are longer term
  - S&L crisis redux?
  - Liquidity financing (FHLB, etc.) requires liquid assets, collateral, etc., and is at higher rates than other deposits, affects profitability

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