對外經濟貿易大學

Chapter 7

The Effective Use of Capital

The function of bank capital

- Reduce bank risk.
- Three basic ways:
  - A cushion to absorb losses and remain solvent
    - Increases the proportion of allowable problem assets that can default before equity is depleted.
  - A ready access to financial markets and thus guards against liquidity problems
  - Constrains growth and limits risk taking

Impact of loan loss on capital

Assets	Liabilities
Loans： 60	Deposits： 80
Other： 40	Borrowings： 16
	Capital： 4
Total： 100	Total： 100

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Balance Sheet of Big Four: 2002/12/31

Assets			Liabilities		
	100 m	%		100m	%
Loans	81,549	60.2	Deposits	110,252	81.4
Other	53,946	30.8	Borrowings	20,162	14.9
			Capital	5,082	3.8
Total	135,495	100	Total	135,495	100

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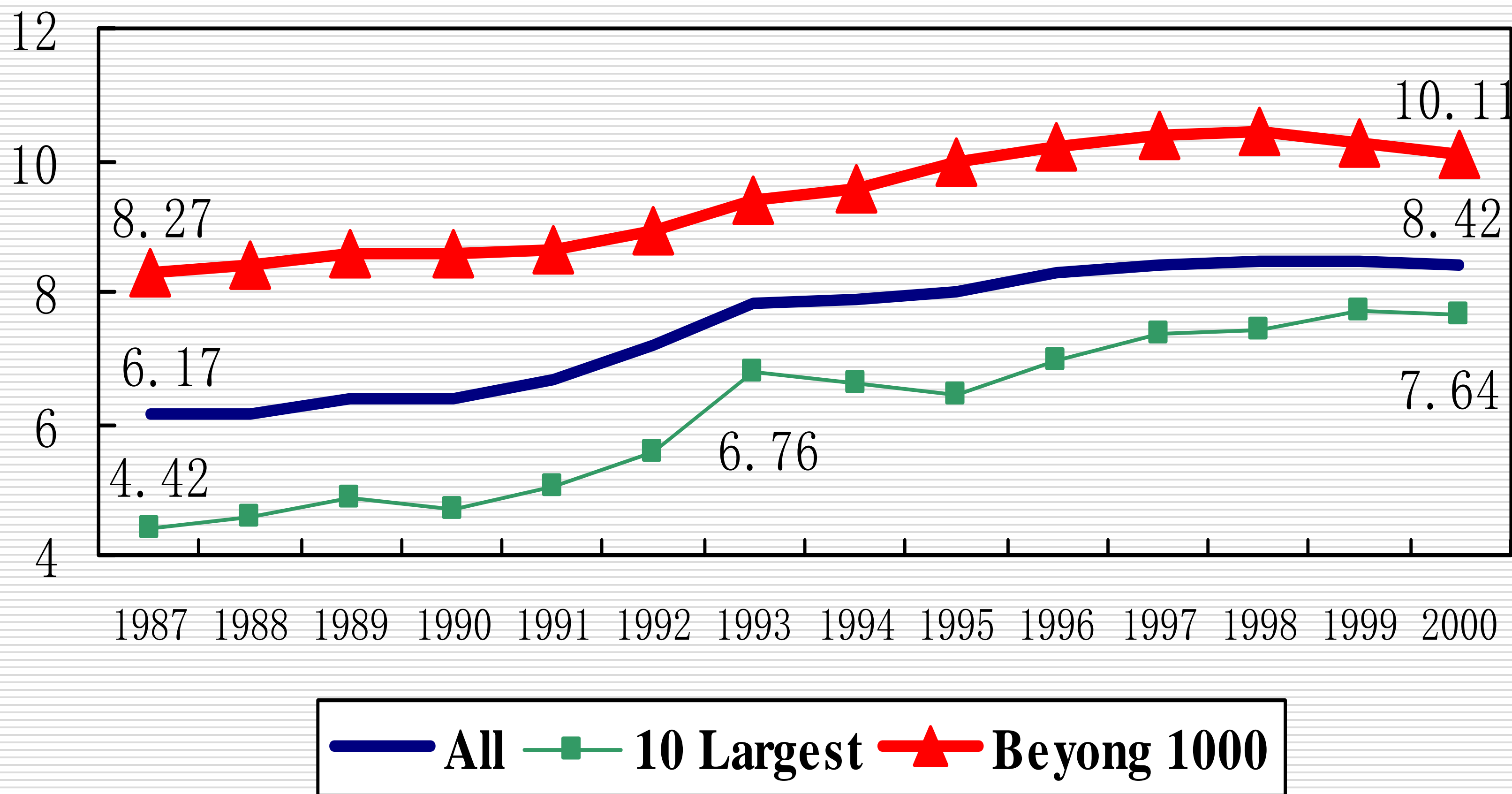
US banks: Capital/Assets(%)



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Impact of loan loss on capital: 1%

Assets	Liabilities
Loans： 59.4←60	Deposits： 80
Other： 40	Borrowings： 16
	Capital： 3.4←4
Total： 99.6←100	Total： 99.6←100

Impact of loan loss on capital: 6.7%

Assets	Liabilities
Loans: 56🡐60	Deposits: 80
Other: 40	Borrowings: 16
	Capital: 0🡐4
Total: 96🡐100	Total: 96🡐100

Impact of loan loss on capital: 10%

Assets	Liabilities
Loans：54←60	Deposits：80
Other：40	Borrowings：16
	Capital：- 2←4
Total：94←100	Total：94←100

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Impact of loan loss on capital: 10%

Assets	Liabilities
Loans: 54←60	Deposits: 80
Loans: 8	Deposits: 8
Other: 40	Borrowings: 16
	Capital: - 2←4
Total: 102←100	Total: 102←100

Ready access to financial markets

- Adequate bank capital minimizes operating problems by providing ready access to financial markets.
  - As long as a bank's capital exceeds the regulatory minimums, it can stay open and has the potential to generate earnings to cover losses and expand.
- Failures are tied directly to market values, not accounting values.

Constrains growth and reduces risk

- Equity is expensive
  - Expected asset returns must be high to justify the financing.
  - Capital providers will exert market discipline over banks.
- Rigid capital requirements
  - Constrain growth
  - Reduce risks

How much capital is adequate?

- Reasons for less equity
  - With fewer fixed costs, operating risk is lower.
  - Deposit insurance and other policy: cash flow
- Reasons for more equity
  - Market value of bank assets is more volatile
  - Sources of funds are more volatile

How much capital is adequate?

- Regulators prefer more capital
  - Safety of banks
  - Viability of the insurance fund
  - Stability of financial markets
- Bankers prefer less capital
  - Leverage improves profitability
- How about depositors?
- Not too much, not too little
  - Adequate

Capital v.s. risks

- How much capital is adequate depends on how much risk the bank assumes.
  - Quality of assets
  - Access to liquid funds
  - Matches in asset and liability maturities and durations
  - Operational risk
- CAMELS

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Risk-based requirements: weaknesses

- Account for limited risks
- Book value of capital ignores:
  - changes in the market value of assets
  - the value of unrealized gains or losses on held-to-maturity bank investments
  - the value of a bank charter
  - the value of federal deposit insurance
  - accounting ploys
- By 2001, 93% of all banks are well-capitalized.

Capital & bank operating policy

- The Effect of Capital Requirements on Bank Operating Policies
  - Limiting Asset Growth
  - Changing the Capital Mix
  - Changing Asset Composition
  - Pricing Policies
  - Shrinking the Bank

Limiting asset growth

- Asset growth is limited to some percentage of retained earnings plus new external capital.
- Option I: increase capital
  - Higher returns: riskier assets or more services
  - Decrease dividends
  - Issue new capital
- Option II: not to grow

Changing the capital mix

- Large banks
  - Public offerings
  - Convertible bonds
- Small banks
  - Existing shareholders
  - Bank customers
  - Upstream correspondent banks
  - Holding company.
- Sale and leaseback: real estate properties

Changing asset composition

- Risk-averse managers:
  - From high-risk categories to lower risk categories.
  - Consequence: Potential profitability declines.
- Risk-love managers:
  - Shifts to higher risk categories

Pricing policies

- The riskier the investments, the more equity capital required.
- The more the equity capital required, the higher the cost.
- Banks have been forced to reprice assets
  - To reflect mandatory equity allocations

Shrinking the bank

- To meet the capital requirements:
  - Historically: move assets off the books
  - Shrinking in size
    - Difficulty in generating earnings growth
    - Difficulty in paying shareholders a reasonable risk-adjusted return.
    - Merge with larger banks.

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