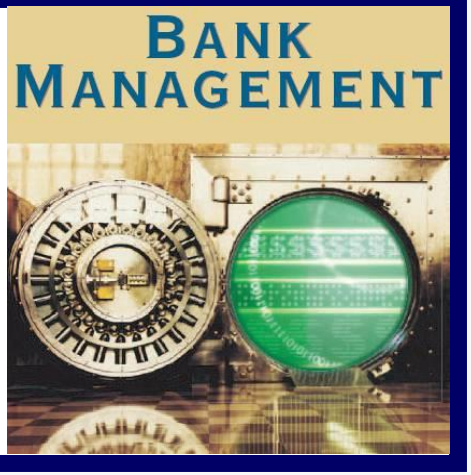
The Effective Use of Capital

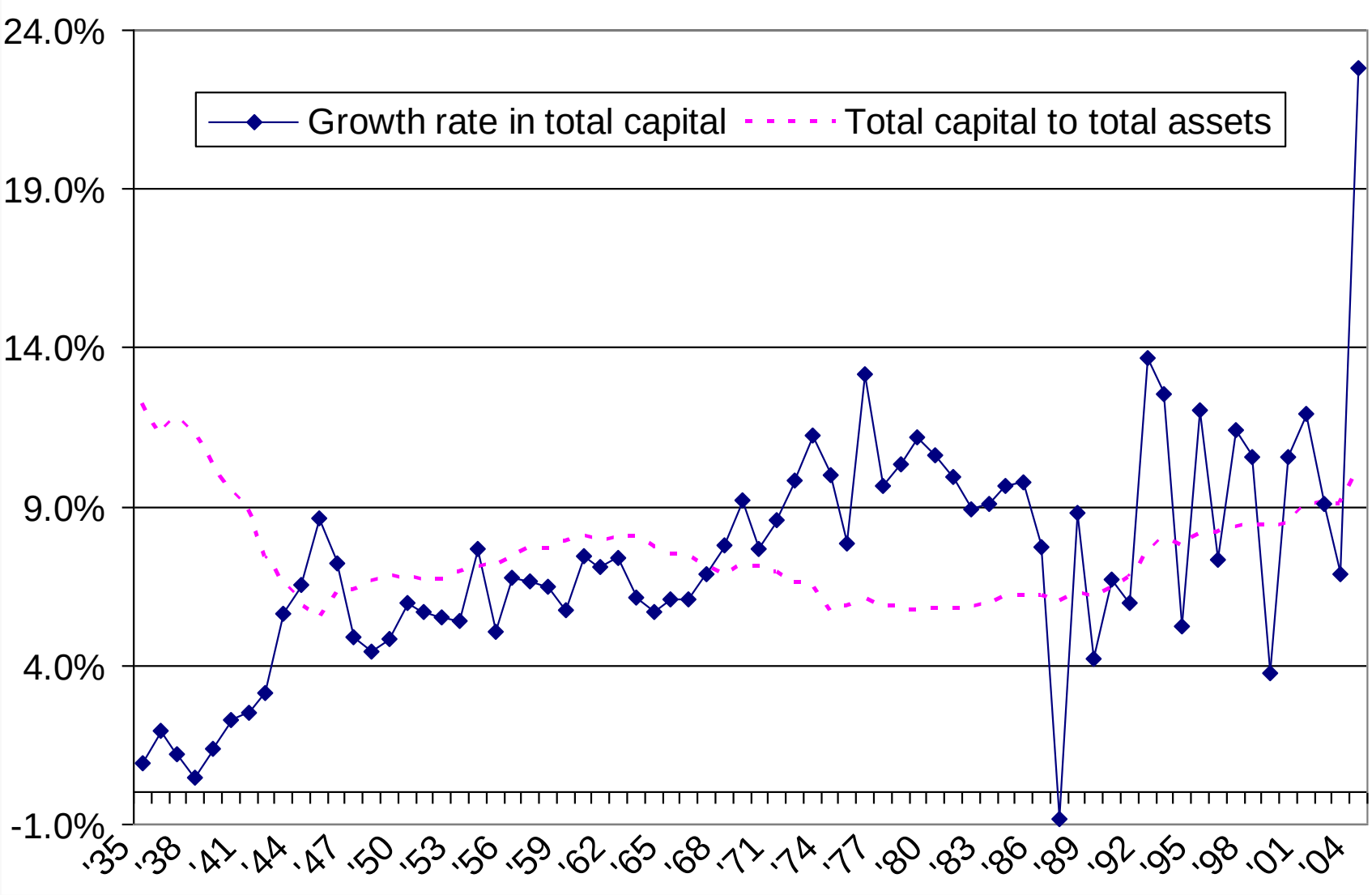
Lecture 9



Why Worry About Bank Capital?

- Capital requirements reduce the risk of failure by acting as a cushion against losses, providing access to financial markets to meet liquidity needs, and limiting growth
- Bank capital-to-asset ratios have fallen from about 20% a hundred years ago to around 8% today

Trends in Bank Capital: 1934 - 2004



Risk-Based Capital

- Historically, the minimum capital requirements for banks were independent of the riskiness of the bank
  - Prior to 1990, banks were required to maintain:
    - a primary capital-to-asset ratio of at least 5% to 6%, and
    - a minimum total capital-to-asset ratio of 6%

Risk-Based Capital

- Primary Capital
  - Common stock
  - Perpetual preferred stock
  - Surplus
  - Undivided profits
  - Contingency and other capital reserves
  - Mandatory convertible debt
  - Allowance for loan and lease losses

Risk-Based Capital

- Secondary Capital
  - Long-term subordinated debt
  - Limited-life preferred stock
- Total Capital
  - Primary Capital + Secondary Capital
- Capital requirements were independent of a bank's asset quality, liquidity risk, interest rate risk, operational risk, and other related risks

The Basel Agreement

- In 1986, U.S. bank regulators proposed that U.S. banks be required to maintain capital that reflects the riskiness of bank assets
  - The Basel Agreement grew to include risk-based capital standards for banks in 12 industrialized nations
  - Regulations apply to both banks and thrifts and have been in place since the end of 1992

The Basel Agreement

- A bank’s minimum capital requirement is linked to its credit risk
  - The greater the credit risk, the greater the required capital
- Stockholders' equity is deemed to be the most valuable type of capital
- Minimum capital requirement increased to 8% total capital to risk-adjusted assets
- Capital requirements were approximately standardized between countries to ‘level the playing field'

The Basel Agreement

- **Risk-Based Elements of the Plan**
  1. **Classify assets into one of four risk categories**
  2. **Classify off-balance sheet commitments into the appropriate risk categories**
  3. **Multiply the dollar amount of assets in each risk category by the appropriate risk weight**
     - **This equals risk-weighted assets**
  4. **Multiply risk-weighted assets by the minimum capital percentages, currently 4% for Tier 1 capital and 8% for total capital**

Regional National Bank (RNB), Risk-based Capital (Millions Of Dollars): Category 1 & 2

	Assets $ 1,000	Risk Weight	Risk Weighted Assets
Category 1: Zero Percent			
Cash & reserve	104,525	0.00%	0
Trading Account	830	0.00%	0
U.S. Treasury & agency secs.	45,882	0.00%	0
Federal Reserve stock	5,916	0.00%	0
Total category 1	157,153		0
Category 2: 20 percent			
Due form banks / in process	303,610	20.00%	60,722
Int. bearing Dep./F.F.S.	497,623	20.00%	99,525
Domestic dep. institutions	38,171	20.00%	7,634
Repurchase agreements (U.S. Treas & agency)	329,309	20.00%	65,862
U.S. Agencies (gov. sponsored)	412,100	20.00%	82,420
State & Muni's secured tax auth	87,515	20.00%	17,503
C.M.O. backed by agency secs.	90,020	20.00%	18,004
SBAs (govt. guaranteed portion)	29,266	20.00%	5,853
Other category 2 assets	0	20.00%	0
Total category 2	1,787,614		357,523

Regional National Bank (RNB), Risk-based Capital (Millions Of Dollars): Category 3 & 4

	Assets $ 1,000	Risk Weight	Risk Weighted Assets
Category 3: 50 percent			
C.M.O. backed by mtge loans	10,000	50.00%	5,000
State & Muni's / all other	68,514	50.00%	34,257
Real estate: 1-4 family	324,422	50.00%	162,211
Other category 3 assets	0	50.00%	0
Total category 3	402,936		201,468
Category 4: 100 percent			
Loans: comm/ag/inst/leases	1,966,276	100.00%	1,966,276
Real estate, all other	388,456	100.00%	388,456
Allowance for loan and lease losses	(70,505)	0.00%	0
Other investments	168,519	100.00%	168,519
Premises, eq. other assets	194,400	100.00%	194,400
Other category 4 assets	0	100.00%	0
Total category 4	2,647,146		2,717,651
Total Assets before Off-Balance Sheet	4,994,849		3,276,642

Regional National Bank (RNB), Risk-based Capital (Millions Of Dollars): Off Balance Sheet

	Assets $ 1,000	Risk Weight	Risk Weighted Assets
Total Assets before Off-Balance Sheet	4,994,849		3,276,642
Off-Balance Sheet Contingencies			
0% collateral category	0	0.00%	0
20% collateral category	0	20.00%	0
50% collateral category	364,920	50.00%	182,460
100% collateral category	290,905	100.00%	290,905
Total Contingencies	655,825		473,365
Total Assets and Contingencies before allowance for loan and lease losses and ATR	5,650,674		3,750,007
Less: Excess allowance for loan and lease losses			(2,152)
Total Assets and Contingencies	**5,650,674**		**3,747,855**

Capital requirements	Actual Capital	Minimum Required Capital (%)	Required Capital (Minimum)
Tier I @ 4%	199,794	4.00%	149,914
Total capital @ 8%	399,588	8.00%	299,828

General Description Of Assets In Each Of The Four Risk Categories

Asset Category	Risk Weight	Effective Total Capital Requirement*	Obligor, Collateral, or Guarantor of the Asset
1	0%	0%	Generally, direct obligations of OCED central government or the U.S. federal government; e.g., currency and coin, government securities, and unconditional government guaranteed claims. Also, balances due or guaranteed by depository institutions.
2	20%	1.6%	Generally, indirect obligations of OCED central government or the U.S. federal government; e.g., most federal agency securities, full faith and credit municipal securities, and domestic depository institutions. Also, assets collateralized by federal government obligations are generally included in this category; e.g., repurchase agreements (when Treasuries serve as collateral) and CMOs backed by government agency securities.
3	50%	4%	Generally, loans secured by 1–4 family properties and municipal bonds secured by revenues of a specific project (revenue bonds).
4	100%	8%	All other claims on private borrowers; e.g., most bank loans, premises, and other assets.

*Equals 8% of equivalent risk-weighted assets and represents the minimum requirement to be adequately capitalized.

Regional National Bank (RNB), Off-balance Sheet Conversion Worksheet

	$ Amount	Credit Conversion Factor	Credit Equivalent $ Amount
Contingencies 100% conversion factor			
Direct Credit substitutes	165,905	100.00%	165,905
Acquisition of participations in BA, direct credit substitutes	0	100.00%	0
Assets sold w/ recourse	0	100.00%	0
Futures & forward contracts	50,000	100.00%	50,000
Interest rate swaps	75,000	100.00%	75,000
Other 100% collateral category	0	100.00%	0
Total 100% collateral category	290,905		290,905
Contingencies 50% conversion factor			
Transaction-related contingencies	0	50.00%	0
Unused commitments > 1 year	364,920	50.00%	182,460
Revolving underwriting facilities (RUFs)	0	50.00%	0
Other 50% collateral category	0	50.00%	0
Total 50% collateral category	364,920		182,460
Contingencies 20% conversion factor			
Short-term trade-related contingencies	0	20.00%	0
Other 20% collateral category	0	20.00%	0
Total 20% collateral category	0		0
Contingencies 0% conversion factor			
Loan commitments < 1 year	0	0.00%	0
Other 0% collateral category	0	100.00%	0
Total 0% collateral category	0		0
Total off-balance sheet commitment	655,825		473,365

*BA refers to bankers acceptance.

Summary of Risk Categories and Risk Weights for Risk-based Capital Requirements

Asset Category	*Risk Weight*	*Effective Total Capital Requirement*	*Obligor, Collateral, or Guarantor of the Asset*
1	0%	0%	Generally, direct obligations of the federal government; e.g., currency and coin, government securities, and unconditional government guaranteed claims. Also balances due or guaranteed by depository institutions.
2	20%	1.6%	Generally, indirect obligations of the federal government; e.g.; most federal agency securities, full faith and credit municipal securities, and domestic depository institutions. Also assets collaterlized by federal government obligations are generally included in this category; e.g., repurchase agreements (when Treasuries serve as collateral) and CMOs backed by government agency securities.
3	50%	4%	Generally, loans secured by one to four family properties and municipal bonds secured by revenues of a specific project (revenue bonds).
4	100%	8%	All other claims on private borrowers.

What Constitutes Bank Capital?

- Capital (Net Worth)
  - The cumulative value of assets minus the cumulative value of liabilities
  - Represents ownership interest in a firm
- Total Equity Capital
  - Equals the sum of:
    - Common stock
    - Surplus
    - Undivided profits and capital reserves
    - Net unrealized holding gains (losses) on available-for-sale securities
    - Preferred stock

Risk-based capital standards

…two measures of qualifying bank capital

- Tier 1 (Core) Capital
  - Equals the sum of:
    - Common equity
    - Non-cumulative perpetual preferred stock
    - Minority interest in consolidated subsidiaries, less intangible assets such as goodwill
- Tier 2 (Supplementary) Capital
  - Equals the sum of:
    - Cumulative perpetual preferred stock
    - Long-term preferred stock
    - Limited amounts of term-subordinated debt
    - Limited amount of the allowance for loan loss reserves (up to 1.25 percent of risk-weighted assets)

What Constitutes Bank Capital?

- Leverage Capital Ratio
  - Equals:
    - Tier 1 capital divided by total assets net of goodwill and disallowed intangible assets and deferred tax assets
  - Regulators are concerned that a bank could acquire practically all low-risk assets such that risk-based capital requirements would be virtually zero
    - To prevent this, regulators have also imposed a 3 percent leverage capital ratio

Risk-based Capital Ratios For Different-sized U.S. Commercial Banks, 1995–2004

		Asset Size				
	Year	< $100 Million	$100 Million to $1 Billion	$1 to $10 Billion	> $10 Billion	All Commercial Banks
Number of Institutions Reporting	2004	3,655	3,530	360	85	7,630
	2000	4,842	3,078	313	82	8,315
	1995	6,658	2,861	346	75	9,940
Equity capital ratio (percent)	2004	11.52	10.00	10.90	9.95	10.10
	2000	11.08	9.6	8.99	8.05	8.49
	1995	10.42	9.39	8.57	7.19	8.11
Return on equity (percent)	2004	8.46	12.88	13.48	14.24	13.82
Core capital (leverage) ratio (percent)	2004	11.31	9.47	9.36	7.23	7.83
Tier 1 risk-based capital ratio (percent)	2004	16.83	12.85	12.34	9.11	10.04
Total risk-based capital ratio (percent)	2004	17.93	14.06	13.92	12.07	12.62

SOURCE: FDIC, Quarter Banking Profile, http://www2.fdic.gov/qbp.

FDICIA and Bank Capital Standards

- The Federal Deposit Insurance Improvement Act (FDICIA) focused on revising bank capital requirements to:
  - Emphasize the importance of capital
  - Authorize early regulatory intervention in problem institutions
  - Authorized regulators to measure interest rate risk at banks and require additional capital when it is deemed excessive.
- The Act required a system for prompt regulatory action
  - It divides banks into categories according to their capital positions and mandates action when capital minimums are not met

Minimum Capital Requirements across Capital Categories

	Total Risk-Based Ratio		Tier 1 Risk-Based Ratio		Tier 1 Leverage Ratio	Capital Directive / Requirement
Well capitalized	10%	&	6%	&	5%	Not subject to a capital directive to meet a specific level for any capital measure
Adequately capitalized	8%	&	4%	&	4%	Does not meet the definition of well capitalized
Undercapitalized	< 8%	or	< 4%	or	< 4%	
Significantly undercapitalized	< 6%	or	< 3%	or	< 3%	
Critically undercapitalized	Ratio of tangible equity to total assets is ≤ 2%					

Provisions for Prompt Corrective Action

Category	Mandatory Provisions	Discretionary Provisions
Well capitalized	None	None
Adequately capitalized	1. No brokered deposits, except with FDIC approval	None
Undercapitalized	1. Suspend dividends and management fees 2 Require capital restoration plan 3. Restrict asset growth 4. Approval required for acquisitions, branching, and new activities 5. No brokered deposits	Order recapitalization 2. Restrict interaffiliate transactions 3. Restrict deposit interest rates 4. Restrict certain other activities 5. Any other action that would better carry out prompt corrective action
Significantly undercapitalized	1. Same as for Category 3 2. Order recapitalization 3. Restrict interaffiliate transaction 4. Restrict deposit interest rates 5. Pay of officers restricted	1. Any Zone 3 discretionary actions 2. Conservatorship or receivership if fails to submit or implement plan or recapitalize pursuant to order 3. Any other Zone 5 provision, if such action is necessary to carry out prompt corrective action
Critically undercapitalized	1. Same as for Category 4 2. Receiver/conservator within 90 days[d] 3. Receiver if still in Category 5 four quarters after becoming critically undercapitalized 4. Suspend payments on subordinated debt[d] 5. Restrict certain other activities	

Tier 3 Capital Requirements for Market Risk

- Many large banks have increased the size and activity of their trading accounts, resulting in greater exposure to market risk
  - Market risk is the risk of loss to the bank from fluctuations in interest rates, equity prices, foreign exchange rates, commodity prices, and exposure to specific risk associated with debt and equity positions in the bank's trading portfolio
  - Market risk exposure is, therefore, a function of the volatility of these rates and prices and the corresponding sensitivity of the bank's trading assets and liabilities

Tier 3 Capital Requirements for Market Risk

- Risk-based capital standards now require all banks with significant market risk to measure their market risk exposure and hold sufficient capital to mitigate this exposure
- A bank is subject to the market risk capital guidelines if its consolidated trading activity equals 10% or more of the bank's total assets or $1 billion or more in total dollar value
  - Banks subject to the market risk capital guidelines must maintain an overall minimum 8 percent ratio of total qualifying capital to risk-weighted assets and market risk equivalent assets

Capital Requirements for Market Risk Using Internal Models

- **Value-at-Risk (VAR)**
  - **An internally generated risk measurement model to measure a bank's market risk exposure**
  - **It estimates the amount by which the value of a bank's position in a risk category could decline due to expected losses in the bank's portfolio because of market movements during a given period, measured with a specified confidence level**

What is the Function of Bank Capital?

- For regulators, bank capital serves to protect the deposit insurance fund in case of bank failures
- Bank capital reduces bank risk by:
  - Providing a cushion for firms to absorb losses and remain solvent
  - Providing ready access to financial markets, which provides the bank with liquidity
  - Constraining growth and limits risk taking

How Much Capital is Adequate?

- Regulators prefer more capital
  - Reduces the likelihood of bank failures and increases bank liquidity
- Bankers prefer less capital
  - Lower capital increases ROE, all other things the same
- Riskier banks should hold more capital while low-risk banks should be allowed to increase financial leverage

How much is “enough” capital?

- A “well capitalized” bank:
  - ≥ 5% Core (leverage) capital
  - ≥ 6% Tier 1 risk-based capital
  - ≥ 10 % total risk-based capital
- Clearly, additional capital is needed for higher risk assets and future growth.

Full Year: 2004

Source: FDIC

TABLE III-A. Full Year 2004, FDIC	All Comm Banks	< $100 Mil	$100 Mil - $1 Bil	$1 - $10 Bil	> $10 Bil	Trend with Size
Number of institutions reporting	7,630	3,655	3,530	360	85	↓
Capital Ratios						
Core capital (leverage) ratio	7.83	11.31	9.47	9.36	7.23	↓
Tier 1 risk-based capital ratio	10.04	16.83	12.85	12.34	9.11	↓
Total risk-based capital ratio	12.62	17.93	14.06	13.92	12.07	↓

Weakness of the Risk-Based Capital Standards

- Standards only consider credit risk
  - Ignores interest rate risk and liquidity risk
- It ignores:
  - Changes in the market value of assets
  - Unrealized gains (losses) on held-to-maturity securities
  - The value of the bank's charter
  - The value of deposit insurance
- 99% of banks are considered "well capitalized" in 2004-2005
  - Not a binding constraint for most banks

The Effect of Capital Requirements on Bank Operating Policies

- **Limiting Asset Growth**
  - **The change in total bank assets is restricted by the amount of bank equity**

$$\Delta TA/TA = \frac{ROA \times (1 - DR) + \Delta EC/TA}{EQ/TA - ROA \times (1 - DR)}$$

  - **Where**
    - **TA = Total Assets**
    - **EQ = Equity Capital**
    - **ROA = Return on Assets**
    - **DR = Dividend Payout Ratio**
    - **EC = New External Capital**

Maintaining Capital Ratios With Asset Growth: Application

Ratio	Intitial Position	Case 1 Initial 8% Asset Growth	Case 2 12% Growth: ↑ ROA	Case 3 12% Growth: ↓ ROA	Case 4 12% Growth: ↑ External Capital
Asset growth rate (percent)		8.00%	12.00%	12.00%	12.00%
Asset size (millions of $)	100.00	108.00	112.00	112.00	112.00
ROA (percent)[a]		0.99%	1.43%	0.99%	0.99%
Dividend payout rate (percent)		40.00%	40.00%	13.42%	40.00%
Undivided Profits (millions of $)	4.00	4.64	4.96	4.96	4.665
Total capital less undivide profits (millions of $)	4.00	4.00	4.00	4.00	4.295
Total capital / total assets (percent)	8.00%	8.00%	8.00%	8.00%	8.00%

Maintaining Capital Ratios With Asset Growth: Application

Case 1: **8% asset growth, dividend payout = 40%, and capital ratio = 8%.**
What is ROA?

$$0.08 = \frac{\text{ROA}(1-0.40)+0}{0.08-\text{ROA}(1-0.40)}$$

Solve for $\text{ROA} = 0.99\%$

Case 2: **12% asset growth, dividend payout = 40%, and capital ratio = 8%.**
What is required ROA to support the 12% asset growth?

$$0.12 = \frac{\text{ROA}(1-0.40)+0}{0.08-\text{ROA}(1-0.40)}$$

Solve for $\text{ROA} = 1.43\%$

Case 3: **ROA = 0.99%, 12% asset growth, and capital ratio = 8%.**
What is the required ↓ dividend payout to support the 12% asset growth?

$$0.12 = \frac{0.99(1-\text{DR})+0}{0.08-0.99(1-\text{DR})}$$

Solve for $\text{DR} = 13.42\%$

Case 4: **ROA = 0.99%, 12% asset growth, capital ratio = 8%, and dividend payout = 40%.**
What is the required ↑ external capital to support the 12% asset growth?

$$0.12 = \frac{0.99(1-0.40)+\Delta\text{EC/TA}}{0.08-0.99(1-0.40)}$$

Solve for $\Delta\text{EC/TA} = 0.29\%$

$\Delta\text{EC} = \$294{,}720$

Operating Policies Effect on Capital Requirements

- Changing the Capital Mix
  - Internal versus External capital
- Change Asset Composition
  - Hold fewer high-risk category assets
- Pricing Policies
  - Raise rates on higher-risk loans
- Shrinking the Bank
  - Fewer assets requires less capital

Characteristics of External Capital Sources

- Subordinated Debt
  - Advantages
    - Interest payments are tax-deductible
    - No dilution of ownership interest
    - Generates additional profits for shareholders as long as earnings before interest and taxes exceed interest payments
  - Disadvantages
    - Does not qualify as Tier 1 capital
    - Interest and principal payments are mandatory
    - Many issues require sinking funds

Characteristics of External Capital Sources

- Common Stock
  - Advantages
    - Qualifies as Tier 1 capital
    - It has no fixed maturity and thus represents a permanent source of funds
    - Dividend payments are discretionary
    - Losses can be charged against equity, not debt, so common stock better protects the FDIC

Characteristics of External Capital Sources

- **Common Stock**
  - **Disadvantages**
    - **Dividends are not tax-deductible,**
    - **Transactions costs on new issues exceed comparable costs on debt**
    - **Shareholders are sensitive to earnings dilution and possible loss of control in ownership**
    - **Often not a viable alternative for smaller banks**

Characteristics of External Capital Sources

- **Preferred Stock**
  - **A form of equity in which investors' claims are senior to those of common stockholders**
  - **Dividends are not tax-deductible**
  - **Corporate investors in preferred stock pay taxes on only 20 percent of dividends**
  - **Most issues take the form of adjustable-rate perpetual stock**

Characteristics of External Capital Sources

- Trust Preferred Stock
  - A hybrid form of equity capital at banks
  - It effectively pays dividends that are tax deductible
    - To issue the security, a bank establishes a trust company
    - The trust company sells preferred stock to investors and loans the proceeds of the issue to the bank
    - Interest on the loan equals dividends paid on preferred stock
    - The interest on the loan is tax deductible such that the bank deducts dividend payments
    - Counts as Tier 1 capital

Characteristics of External Capital Sources

- Leasing Arrangements
  - Many banks enter into sale and leaseback arrangements
    - Example:
      - The bank sells its headquarters and simultaneously leases it back from the buyer
      - The bank receives a large amount of cash and still maintains control of the property
      - The net effect is that the bank takes a fully depreciated asset and turns it into a tax deduction

Capital Planning

- **Process of Capital Planning**
  - **Generate pro formal balance sheet and income statements for the bank**
  - **Select a dividend payout**
  - **Analyze the costs and benefits of alternative sources of external capital**

Capital Planning: Forecast Performance Measures For A Bank With Deficient Capital Ratios

	2005	2006	2007	2008	2009
Historical 10% Growth in Assets: $250,000 In Dividends					
Total assets	$ 80.00	$ 88.00	$ 96.80	$ 106.48	$ 117.13
Net interest margin	4.40%	4.40%	4.50%	4.60%	4.70%
ROA	0.45%	0.45%	0.60%	0.65%	0.75%
Total capital	$ 5.60	$ 5.75	$ 6.08	$ 6.52	$ 7.15
Capital ratio	7.00%	6.53%	6.28%	6.12%	6.10%
Shrink the Bank, reduce assets by $1 million a year: $250,000 In Dividen					
Total assets	$ 80.00	$ 79.00	$ 78.00	$ 77.00	$ 76.00
Net interest margin	4.40%	4.40%	4.50%	4.60%	4.70%
ROA	0.45%	0.45%	0.60%	0.65%	0.75%
Total capital	$ 5.60	$ 5.71	$ 5.92	$ 6.17	$ 6.49
Capital ratio	7.00%	7.22%	7.59%	8.02%	8.54%
Slow Growth, $2 million increase in assets each year: No Dividends					
Total assets	$ 80.00	$ 82.00	$ 84.00	$ 86.00	$ 88.00
Net interest margin	4.40%	4.40%	4.50%	4.60%	4.70%
ROA	0.45%	0.45%	0.60%	0.65%	0.75%
Total capital	$ 5.60	$ 5.97	$ 6.47	$ 7.03	$ 7.69
Capital ratio	7.00%	7.28%	7.71%	8.18%	8.74%
Slow Growth, $2 million increase in assets each year: $250,000 In Dividends, $800,000 External Capital Injection In 2004					
Total assets	$ 80.00	$ 82.00	$ 84.00	$ 86.00	$ 88.00
Net interest margin	4.40%	4.40%	4.50%	4.60%	4.70%
ROA	0.45%	0.45%	0.60%	0.65%	0.75%
Total capital	$ 5.60	$ 5.72	$ 5.97	$ 7.08	$ 7.49
Capital ratio	7.00%	6.97%	7.11%	8.23%	8.51%

Federal Deposit Insurance

- Federal Deposit Insurance Corporation
  - Established in 1933
  - Coverage is currently $100,000 per depositor per institution
    - Original coverage was $2,500
  - Initial Objective:
    - Prevent liquidity crises caused by large-scale deposit withdrawals
    - Protect depositors of modes means against a bank failure.
  - The large number of failures in the late 1980s and early 1990s put pressure on the FDIC by slowly depleting the reserve fund

The Deposit Insurance Funds Act of 1996 (DIFA)

- Included both a one-time assessment on SAIF deposits to capitalize the SAIF fund
- Mandated the ultimate elimination of the BIF and SAIF funds by merging them into a new Deposit Insurance Fund

Risk-Based Deposit Insurance

- FDIC insurance premiums are based on a risk-based deposit insurance system
- The deposit insurance fund reserve ratios are maintained at or above the target Designated Reserve Ratio of 1.25% of insured deposits
  - Deposit insurance premiums are assessed as basis points per $100 of insured deposits

The Current Assessment Rate Schedule For BIF Insured And SAIF-insured Institutions

- **Over 90% of all BIF-insured institutions pay no assessments**

	Insurance Premiums Supervisory Subgroups		
Capital Group	**A**	**B**	**C**
Well capitalized	0 bp	3 bp	17 bp
Adequately capitalized	3 bp	10 bp	24 bp
Undercapitalized	10 bp	24 bp	27 bp

bp = basis point, which equals 1/100 of one percent. An FDIC assessment of 20 basis points amount to 20 cents per $100 of insured deposits

Subgroup A - Financially sound institutions

Subgroup B - Institutions that demonstrate weaknesses that could result in significant deterioration of the institution

Subgroup C - Institutions that pose a substantial probability of loss to the BIF or SAIF

Federal Deposit Insurance

- Problems with Deposit Insurance
  - Deposit insurance acts similarly to bank capital
    - In banking, a large portion of borrowed funds come from insured depositors who do not look to the bank's capital position in the event of default
    - A large number of depositors, therefore, do not require a risk premium to be paid by the bank since their funds are insured
    - Normal market discipline in which higher risk requires the bank to pay a risk premium does not apply to insured funds

Problems with Deposit Insurance

- Too-Big-To-Fail
  - Many large banks are considered to be “too-big-to-fail”
  - As such, any creditor of a large bank would receive de facto 100 percent insurance coverage regardless of the size or type of liability

Problems with Deposit Insurance

- Deposit insurance has historically ignored the riskiness of a bank's operations, which represents the critical factor that leads to failure
  - Two banks with equal amounts of domestic deposits paid the same insurance premium, even though one invested heavily in risky loans and had no uninsured deposits while the other owned only U.S. government securities and just 50 percent of its deposits were fully insured.
  - The creates a moral hazard problem.

Problems with Deposit Insurance

- Moral hazard problem, whereby bank managers have an incentive to increase risk.
  - For example, suppose that a bank had a large portfolio of problem assets that was generating little revenue.
  - Managers could use deposit insurance to access funds via brokered CDs in $100,000 blocks.
  - They might invest the funds in risky assets knowing that any profits would offset losses on the problem assets. Losses would be absorbed by the insurance fund in the event of default.

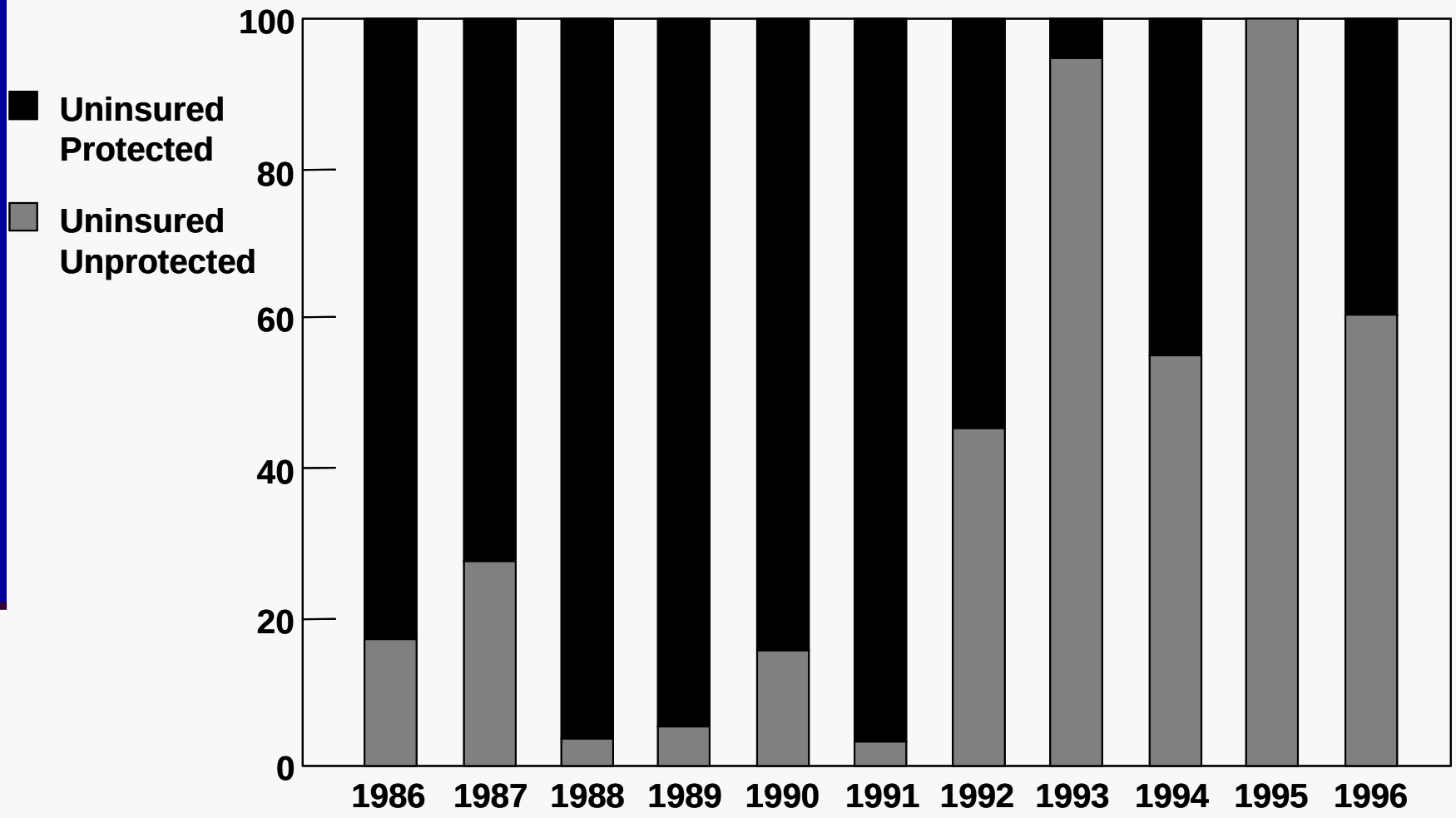
Problems with Deposit Insurance

- Deposit insurance funds were always viewed as providing basic insurance coverage
  - Historically, there has been fundamental problem with the pricing of deposit insurance
    - Premium levels were not sufficient to cover potential payouts
    - The FDIC and FSLIC were initially expected to establish reserves amounting to 5 percent of covered deposits funded by premiums
      - Actual reserves never exceeded two percent of insured deposits as Congress kept increasing coverage while insurance premiums remained constant
      - The high rate of failures during the 1980s and the insurance funds demonstrate that premiums were inadequate

Problems with Deposit Insurance

- Historically, premiums were not assessed against all of a bank's insured liabilities
  - Insured deposits consisted only of domestic deposits while foreign deposits were exempt.
  - Too-big-to-fail doctrine toward large banks means that large banks would have coverage on 100 percent of their deposits but pay for the same coverage as if they only had $100,000 coverage as smaller banks do
  - This means that regulators were much more willing to fail smaller banks and force uninsured depositors and other creditors to take losses.

Percentage Of Failed Commercial Banks By Uninsured Depositor Treatment, 1986–1996



BASEL II Capital Standards

- The Basel Accord's approach to capital requirements was primarily based on credit risk, it did not address operational or other types of risk
  - Three Pillars of Regulation
    - Minimum Capital Requirements
    - Supervisory Review
    - Market Discipline

BASEL II Capital Standards

- Credit Risk
  - Banks are allowed to choose between two approaches to calculate minimum capital
    - External Credit Assessments
      - Rating Agencies
    - Internal Rating Systems
      - The bank's own assessment

BASEL II Capital Standards

- **Operational Risk**
  - **The risk of loss resulting from inadequate or failed internal processes, people, systems, for from external events**
    - **Example: 9/11/01**
  - **Look at occurrences of fraud**

BASEL II Capital Standards

- **Trading Book (Including Market Risk)**
  - **Management must demonstrate an ability to value the positions with an emphasis on marking-to-market exposures**

BASEL II Capital Standards

- **Supervisory Review and Market Discipline**
  - **Banks should have a process for assessing overall capital adequacy in relation to their risk profile and a strategy for maintaining their capital levels**
  - **Supervisors should review and evaluate banks' internal capital adequacy assessments and strategies**

BASEL II Capital Standards

- Supervisory Review
  - Banks should have a process for assessing overall capital adequacy in relation to their risk profile and a strategy for maintaining their capital levels
  - Supervisors should:
    - Review and evaluate banks' internal capital adequacy assessments and strategies
    - Expect banks to operate with capital above the minimum regulatory ratios
    - Intervene at an early stage to prevent capital from falling below regulatory minimums

BASEL II Capital Standards

- **Market Discipline**
  - **Regulators will encourage market discipline for banks by forcing disclosure of key information pertaining to risk**
    - **Market participants will be provided with information regarding specific risk exposures, risk assessment practices, actual capital, and required capital so that they can assess the adequacy of capital**