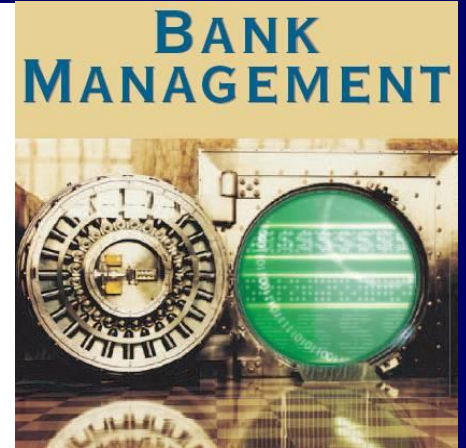


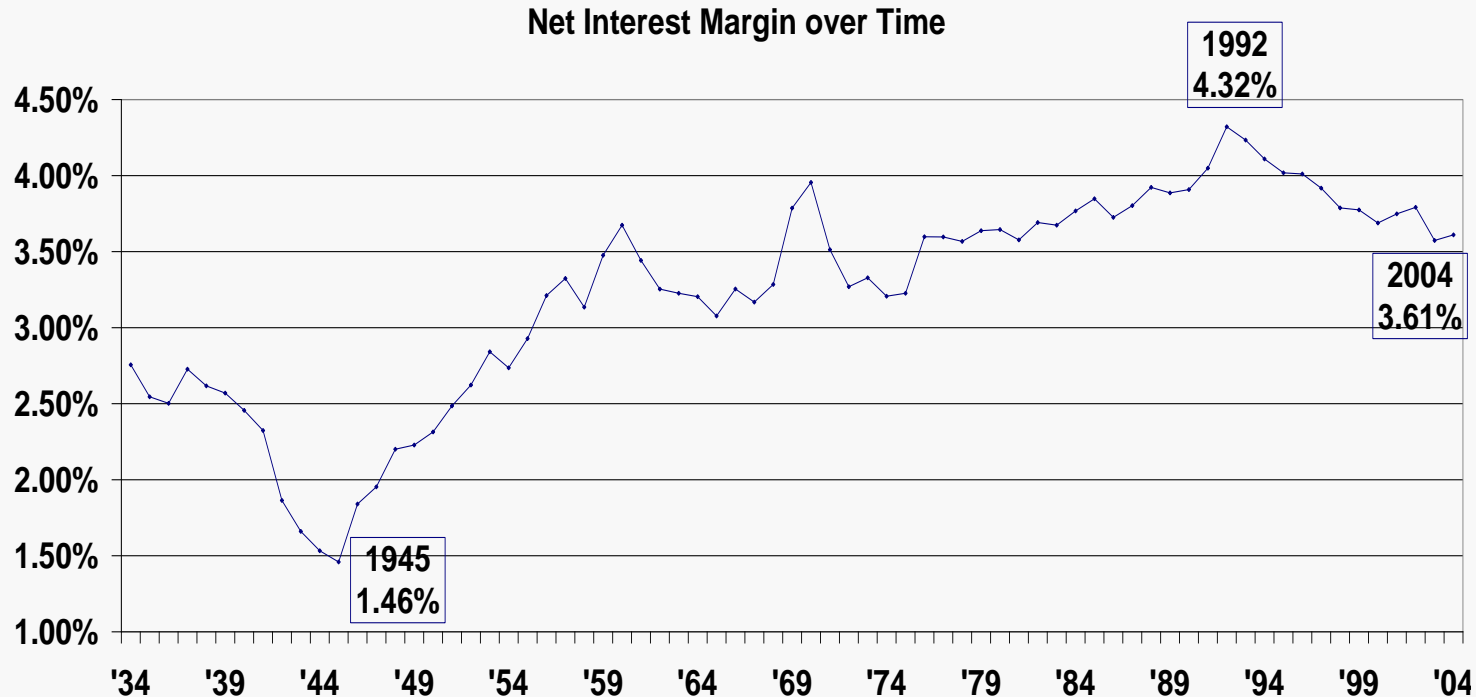
MANAGING NONINTEREST INCOME & NONINTEREST EXPENSE

Lecture 3

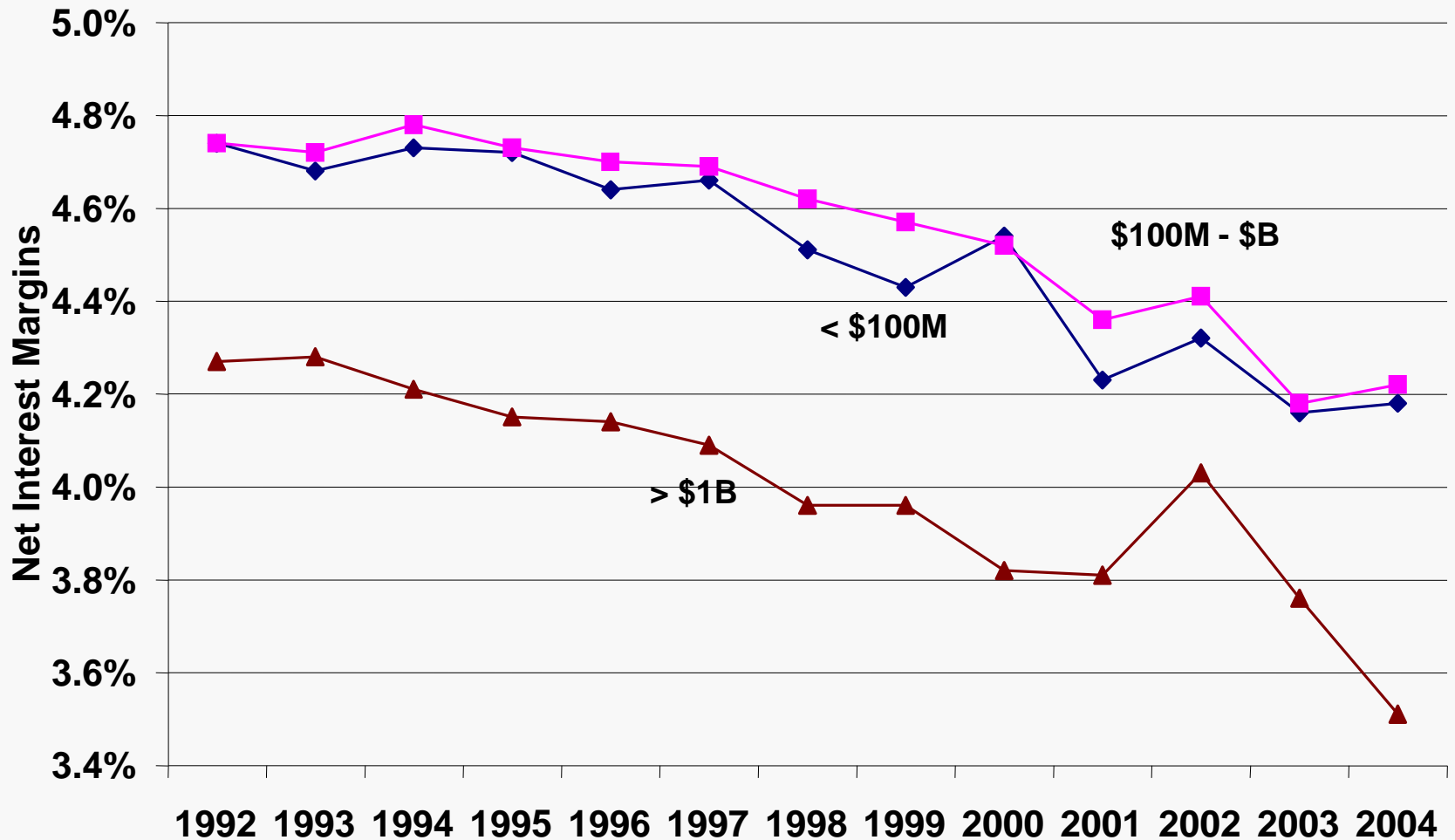


Issues in Interest Income and Interest Expense

- Deregulation in the 1990s lead to an increase in competition
- Average NIM fell since 1992 due to this increased competition



Net Interest Margins by Bank Asset Size, 1992–2004



Issues in Interest Income and Interest Expense

- **Core deposit growth has slowed due to “disintermediation”**
- **Loan yields have fallen on a relative basis due to credit scoring and increased competition among lenders**
- **NIM is being squeezed, so banks must concentrate more on non-interest income to grow profits.**

Issues in Non-Interest Income and Non-Interest Expense

- **Banks must rely less on net interest income and more on non-interest income to be more successful**
 - **Banks must grow their non-interest income relative to non-interest expense if they want to see net income grow.**

Issues in Non-Interest Income and Non-Interest Expense

- **The highest earning banks will be those that generate an increasing share of operating revenue from non-interest sources, like fee income**
 - **All fees are NOT created equal**
 - **Some fees are stable and predictable over time, while others are highly volatile because they are cyclical**
 - **Consider NSF charges on checkwriting**

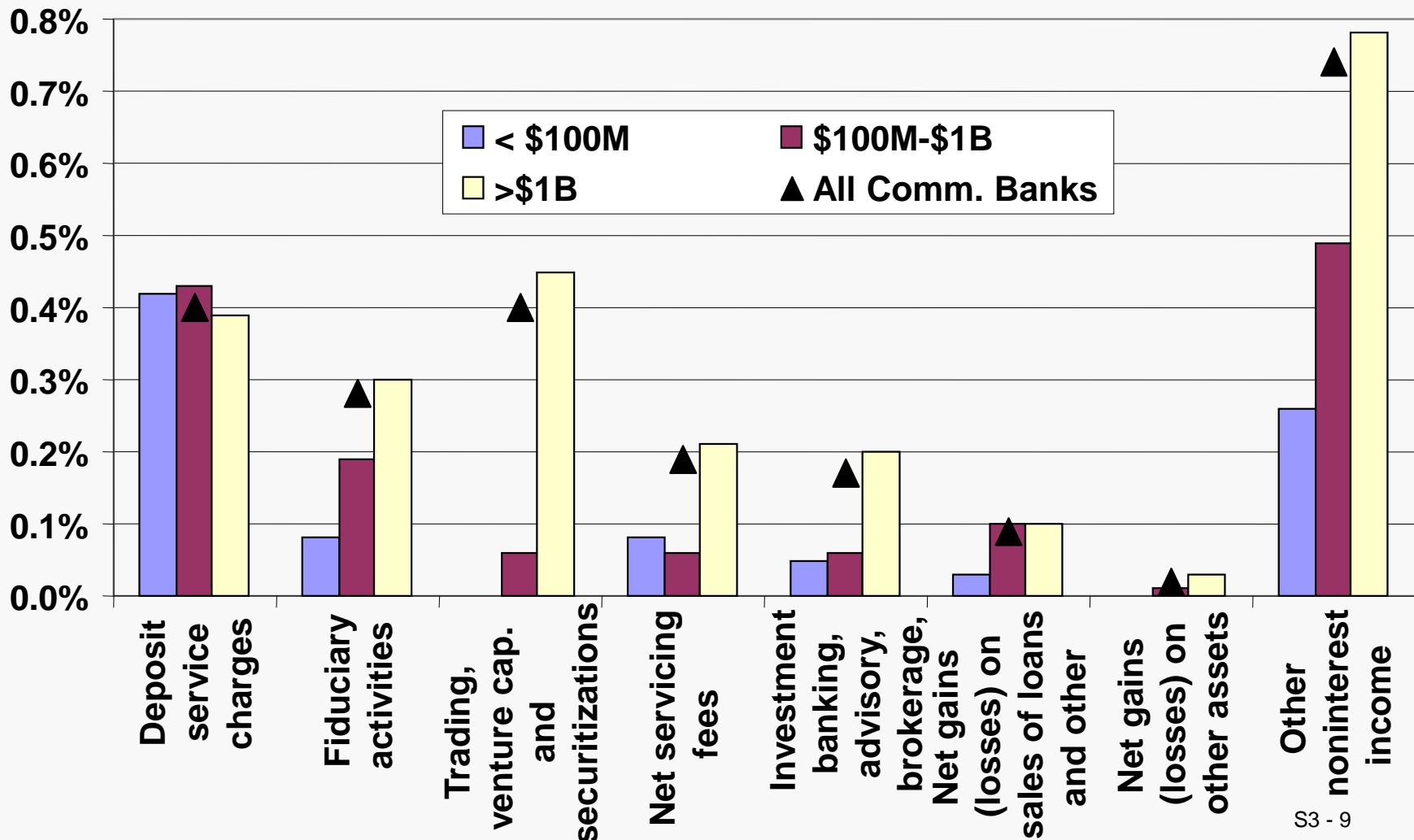
Sources of Non-Interest Income

- **Fiduciary Activities**
- **Deposit Service Charges**
- **Trading Revenue, Venture Capital Revenue, and Securitization Income**
- **Investment Banking, Advisory, Brokerage, and Underwriting Fees and Commissions**
- **Insurance Commission Fees and Income**
- **Net Servicing Fees**
- **Net Gains (Losses) on Sales of Loans**
- **Other Net Gains (Losses)**
 - **Sale of premises and other fixed assets**
- **Other Non-Interest Income**
 - **Safe Deposit, Money Order & Notary Fees**

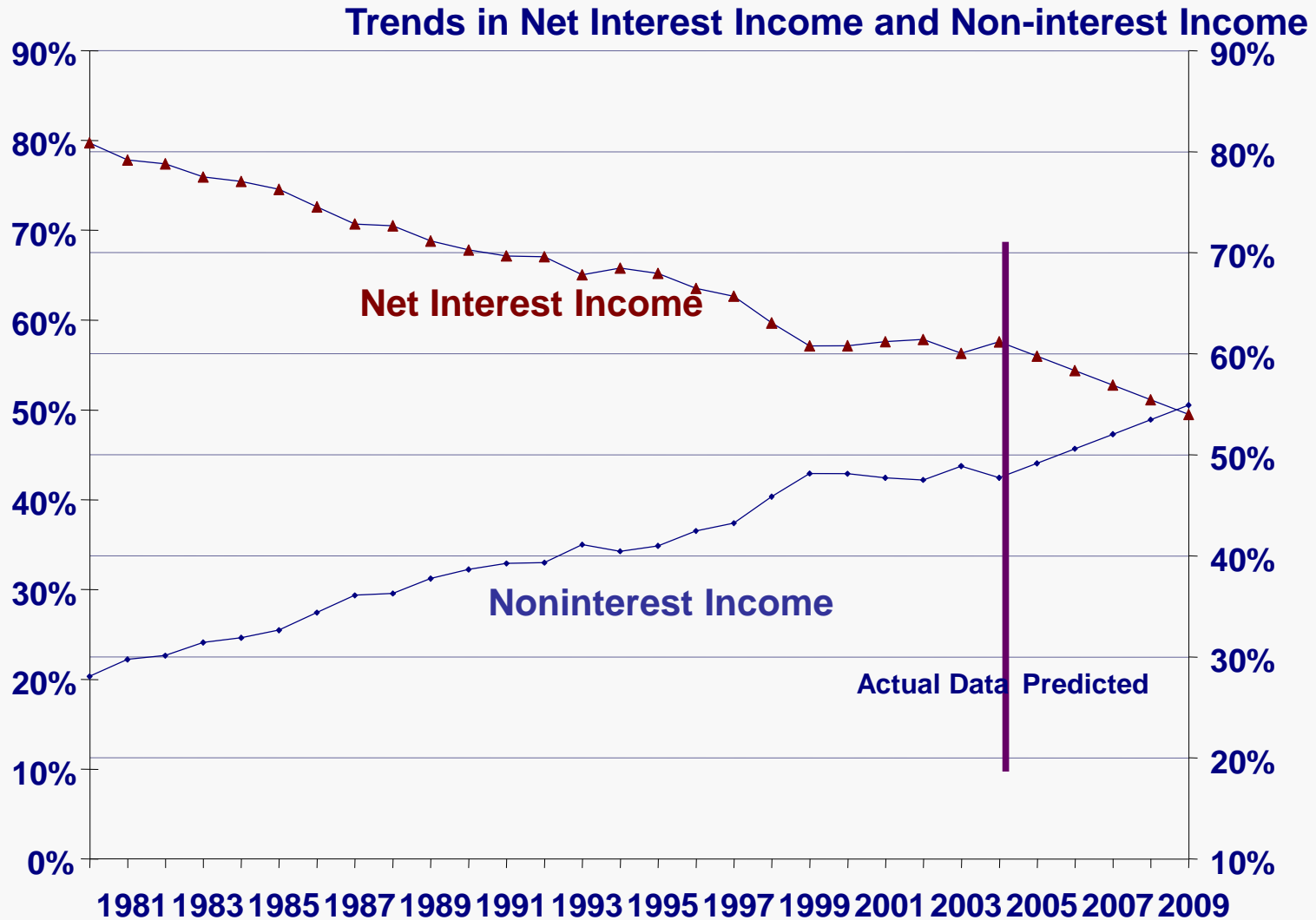
Non-Interest Income is increasing as a proportion of net operating revenue

- **Largest contributors are deposit service charges and other non-interest income**
- **Largest banks rely more on non-interest income than their smaller counterparts**

Composition of Noninterest Income by Bank Size as a Percentage of Total Assets, 2004



Non-Interest income is increasing as a proportion of net operating revenue



Deposit Service Fees

- **Stable source of revenue**
- **Relatively price inelastic**
- **What level of fees is too high given a bank's desire for strong customer relationships?**

Deposit Service Fees: Non-Interest Checking Accounts

- **Single-Balance, Single-Fee**
 - **No fee if minimum balance is met; otherwise monthly fee**
- **Account Fee-Only**
 - **Monthly fee regardless of balance plus a possible per-check-charge**
- **Free**
 - **No fees of any kind**

Deposit Service Fees: Interest-Bearing Checking Accounts

- **Single-Fee NOW Accounts**
 - **No fee if minimum balance is met, otherwise monthly fee**
- **Single-Fee, Single Check NOW Account**
 - **Monthly fee regardless of balance plus a possible per-check-charge**
- **No-Fee NOW Accounts**
 - **No fees of any kind**

Deposit Service Fees: Special Fees

- **NSF Checks**
 - **Check is returned**
- **Overdrafts**
 - **Check is honored**
- **Deposit Items Returned**
- **Stop-Payment Order**

Fee Structures by Bank Size and Type of Services, 1999 and 2002: Special account fees

Account availability and fee averages
Dollars except as noted

	1999				2002			
	Institution Size				Institution Size			
	All	Large	Med.	Small	All	Large	Med.	Small
Special Account Fees								
Stop-payment orders average fee	15.26	20.46	17.61	13.70	18.93	23.54	21.06	17.00
NSF checks average fee 1	17.88	22.84	20.05	16.43	21.73	26.19	23.41	20.14
Overdrafts average fee 2	17.66	22.95	20.24	15.97	21.80	26.84	23.69	20.00
Deposit items returned average fee	6.33	7.47	6.37	6.16	6.88	6.13	6.82	7.03

Deposit Service Fees: ATM Services

- **Annual Fees**
- **ATM Card Fees**
- **“On us” Withdrawal Fees**
 - **Fees levied on bank’s own customers for withdrawals from the bank’s own ATMs**
- **“On others” Withdrawal Fees**
 - **Fees levied on bank’s own customers for withdrawals from another bank’s ATM**

The UBPR lists five components of non-interest expense:

- **Personnel Expense**
- **Occupancy Expense**
- **Goodwill Impairment**
- **Other Intangible Amortization**
- **Other Operating Expense**

Cost savings in these areas often drive bank mergers

Non-Interest Expense: Key Ratios

■ Burden

Burden = $\frac{\text{Non-Interest Expense}}{\text{Non-Interest Income}}$

- Lower is better (Burden > 0)

■ Net Non-Interest Margin

Net Non-Interest Margin = $\frac{\text{Burden}}{\text{Average Total Assets}}$

- Lower is better

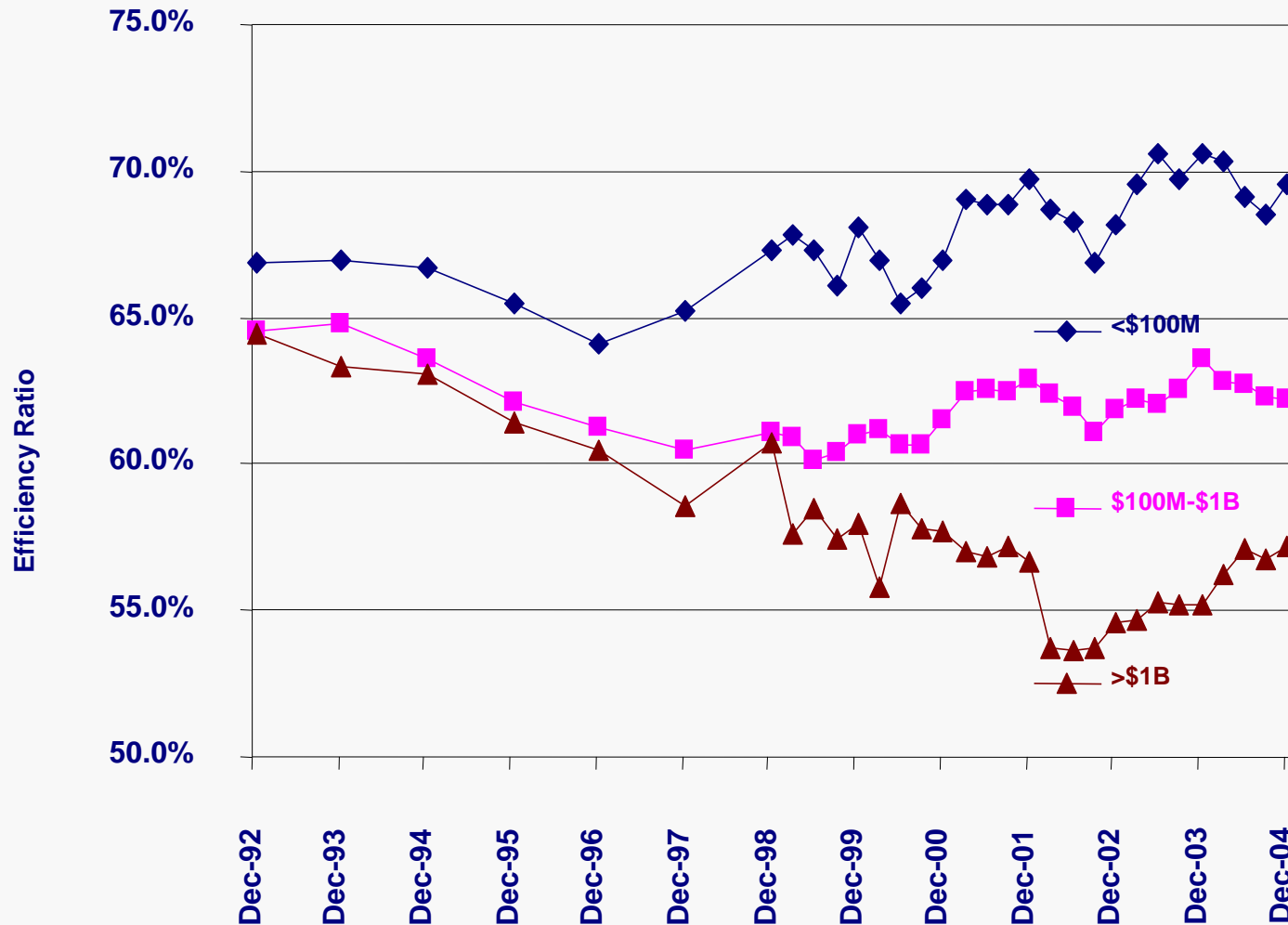
Non-Interest Expense: Efficiency Ratio

■ Efficiency Ratio

$$\text{Efficiency Ratio} = \frac{\text{Non - Interest Expense}}{\text{Net Interest Income} + \text{Non - Interest Income}}$$

- Larger banks tend to have lower (better) efficiency ratios because they generate more non-interest income
- Low efficiency ratios do not always lead to higher ROEs

Efficiency Ratios of U.S. Commercial Banks, 1992–2004



Non-Interest Expense: Operating Risk Ratio

■ Operating Risk Ratio

$$\text{Operating Risk Ratio} = \frac{\text{Non - Interest Expense} - \text{Fee Income}}{\text{Net Interest Margin}}$$

- **Lower is better because proportionally more income comes from fees**

Operating Risk Ratio Signals the Benefit of Fee Income

Ratio	Bay Bank	River Bank
Return on assets (ROA)	1.40%	1.40%
Net interest margin (NIM)	4.000%	4.625%
<i>Percent of average total assets:</i>		
Net interest income	3.20%	3.70%
Noninterest income (fee)	1.40%	0.90%
Operating revenue	4.60%	4.60%
Noninterest expense	3.00%	3.00%
Earning assets	80.00%	80.00%
Taxes	0.20%	0.20%
	65.22%	65.22%
Efficiency Ratio:	=0.03 / (0.032 + 0.014)	=0.03 / (0.037 + 0.009)
	40.00%	45.41%
Operating Risk Ratio:	= (0.03 - 0.014) / 0.04	= (0.03 - 0.014) / 0.04625

Non-Interest Expense: Productivity Ratios

■ Productivity Ratios

■ Assets per Employee

$$\text{Assets Per Employee} = \frac{\text{Average Assets}}{\text{Number of Full - Time Employees}}$$

■ Average Personnel Expense

$$\text{Average Personnel Expense} = \frac{\text{Personnel Expense}}{\text{Number of Full - Time Employees}}$$

- Can be biased on the high side due to senior management compensation

Community banks often examine two additional productivity ratios

■ Loans per Employee

$$\text{Loans Per Employee} = \frac{\text{Average Loans}}{\text{Number of Full - Time Employees}}$$

■ Net Income per Employee

$$\text{Net Income Per Employee} = \frac{\text{Net Income}}{\text{Number of Full - Time Employees}}$$

- **Loans typically represent the largest proportion of assets for community banks**

Line-of-Business Profitability

■ Risk-Adjusted Return on Capital

$$\text{RAROC} = \frac{\text{Risk - Adjusted Income}}{\text{Capital}}$$

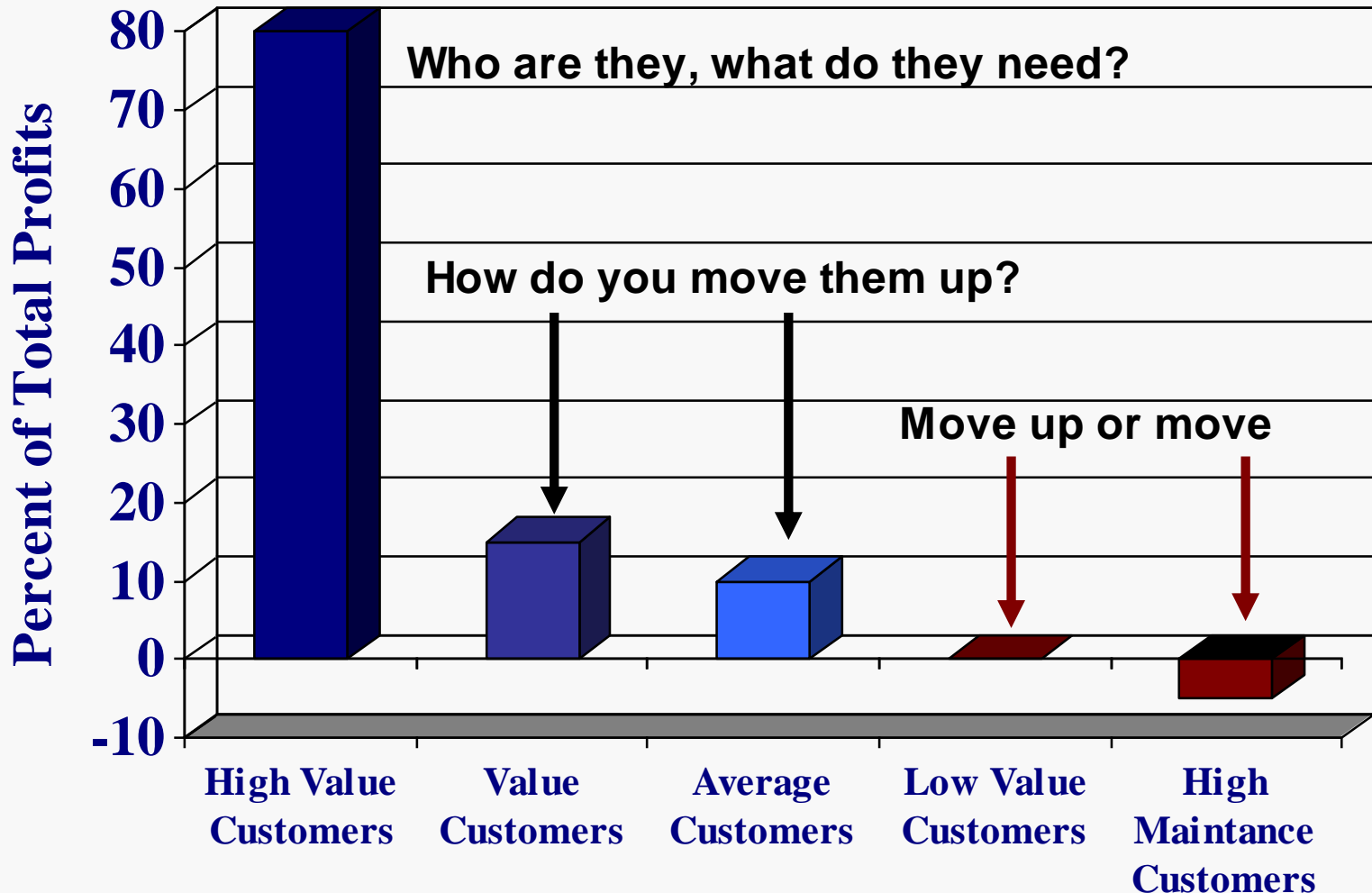
■ Return on Risk-Adjusted Capital

$$\text{RORAC} = \frac{\text{Income}}{\text{Allocated Risk Capital}}$$

Customer Profitability

- **Analyses of customer profitability profiles suggest that banks make most of their profit from a relatively small fraction of customers.**
 - **View is that 20% of a bank's customers account for 80% of profits.**
 - **This supports the increase in fees assessed by most banks over the past few years.**

Customer Profitability 80–20 Rule



Customer Profitability:

Expense Components

■ Non-Credit Services

- Check-processing expenses are the major non-credit cost item for commercial customers
- Transaction Risk
 - Risk of fraud, theft, error, and delays in processing, clearing, and settling payments

■ Credit Services

- Cost of Funds
- Loan Administration Expense
- Default Risk
 - Business Risk Expense
 - Losses and allocations for potential losses

Customer Profitability: Revenue Components

- **Investment Income from Deposit Balances**
 - **Earnings Credit**
- **Non-Interest Income**
 - **Fee Income**
- **Loan Interest**

Customer Profitability:

Aggregate Profitability Results

- **Profitable customers maintain multiple relationships with the bank**
- **Unprofitable customers tend to “shop” for the lowest price and do not use multiple products**

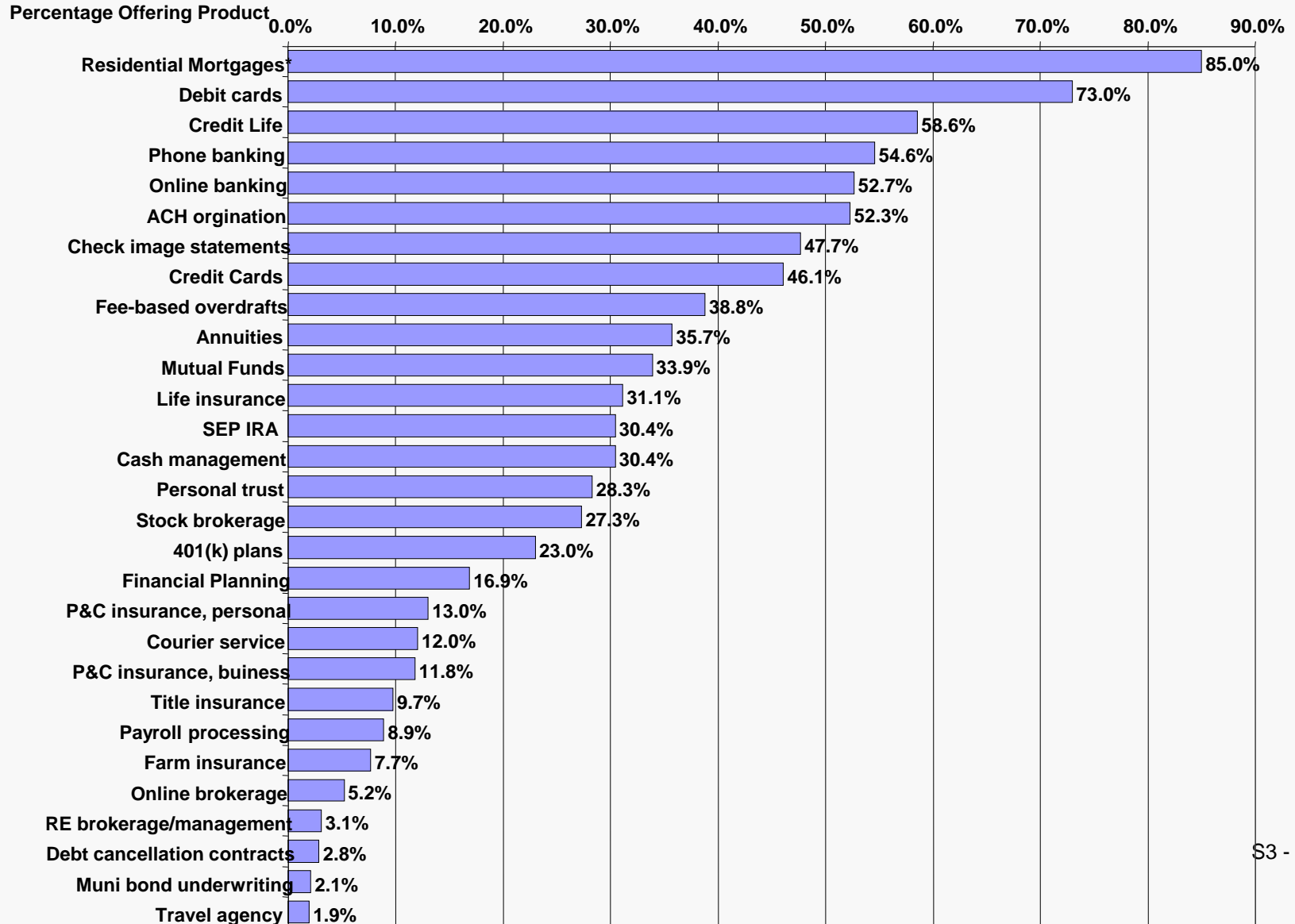
Appropriate Business Mix

- **Manage Fee Income in a Portfolio Context**
 - **One suggestion:**
 - **30% - Deposit Activities**
 - **10% - 15% - Investment Banking and Trading**
 - **55% - 60% - Specialty Intermediation and Fee-Based Operating Business**
 - **Consumer Finance**
 - **Specialty Leasing**
 - **Factoring**
 - **Insurance**
 - **Mutual Funds**
 - **Investment Management**

Percentage of Various Components of Total Noninterest Income, 2004

Percentage of Total Noninterest Income	< \$100M	\$100M- \$1B	>\$1B	All Comm. Banks
Deposit service charges	45.7%	30.7%	15.9%	17.5%
Fiduciary activities	8.7%	13.6%	12.2%	12.2%
Trading, venture cap. and securitizations	0.0%	4.3%	18.3%	17.5%
Net servicing fees	8.7%	4.3%	8.5%	8.3%
Investment banking, advisory, brokerage, and insurance	1.1%	2.1%	5.7%	5.2%
Insurance commissions and fees	4.3%	2.1%	2.4%	2.2%
Net gains (losses) on sales of loans and other assets	3.3%	7.1%	4.1%	3.9%
Net gains (losses) on other assets	0.0%	0.7%	1.2%	0.9%
Other noninterest income	28.3%	35.0%	31.7%	32.3%

Product Offerings at Community Banks to Generate Noninterest Income



Strategies to Manage Non-Interest Expense

- **Cost Management Strategies**
- **Expense Reduction**
- **Operating Efficiencies**
- **Revenue Enhancement**

Cost Management Strategies

Expense Reduction

- **Be careful not to just focus on reducing costs, rather, move them in line with strategic objectives.**
- **Begin by identifying excessive expenses and eliminating them**
 - **Largest non-interest expenses are personnel, occupancy, and data processing costs. These are often the areas where cuts are initially made.**
- **Outsourcing**

Cost Management Strategies: Operating Efficiencies

- **Reducing costs while maintaining existing level of products and services**
- **Increasing the level of output while maintaining the level of current expenses**
- **Improving work flow (doing things faster)**
- **Operating efficiencies of:**
 - **Economies of Scale**
 - **Economies of Scope**

Cost Management Strategies: Revenue Enhancement

■ Price Elasticity

- Identify products or services that exhibit price inelastic demand
- Change the pricing of specific products while maintaining a sufficiently high volume of business so that total revenue increases

■ Contribution Growth

- Management allocates resources to best improve overall long-term profitability
- Increases in expenses are acceptable, but they must coincide with greater anticipated increases in associated revenues
- In the short-run, expenses rise, but expenses are cut in the long-run