DAY 3 - WEDNESDAY

Capital Adequacy

- What is the purpose of capital?
- How much is enough? Who decides?
- Can you have too much?
- Can you have too little?
- How do you measure whether a bank has enough?

Simple Capital Adequacy Measurement

- Total Equity as a percentage of total assets
- For DCB:
  - $100 million / $1 billion =
  - Problem with this ratio…..it doesn't consider the risk among different banks operation
- Answer…..a risk based capital system
  - *GAAP vs Regulatory Capital*

WS # 7

Risk-Based Capital Measurements

- Numerator
  - Breaks capital into 2 levels - Tier 1 and Tier 2
  - Tangible common equity
- Denominator
  - Risk-weight multipliers based on asset risk
  - Adds in specific off-balance sheet risk

Tier 1 and Tier 2 Capital

- Tier 1 Capital
  - Total equity (common stock/APIC/Retained earnings)
  - Qualifying Trust Preferred (under $15 B)
  - Plus/Minus: unrealized losses /gains on securities AFS
  - Less: goodwill and intangible assets
  - Less: disallowed deferred tax assets
- Tier 2 Capital
  - Qualifying amount of allowance for loan losses
  - Subordinated Debt
- "Total" Risk Based Capital
  - Tier 1 plus Tier 2

WS # 8

Darden Community Bankshares

Assets	$ Amount		Liabilities/Capital	$ Amount
Cash and Due From	$ 10,000,000		DDA	$ 200,000,000
Fed Funds Sold	50,000,000		Savings/MMDA	370,000,000
Securities	150,000,000		CDs/IRA Certificates	300,000,000
Loans, Gross	735,000,000		Funds Purchased	0
Reserve Losses	(10,000,000)		Other Borrowings	20,000,000
Fixed Assets	40,000,000		Other Liabilities	10,000,000
OREO	5,000,000		Total Liabilities	900,000,000
Other Assets	20,000,000			
			Equity Capital	100,000,000
Total Assets	$1,000,000,000		Liabilities & Capital	$1,000,000,000

Risk Weighted Assets

- Concept: Assign a risk weighting to every asset, risks range from 0% to 150%
- Examples:
  - 0%: Cash, US Treasury & GNMA Securities
  - 20%: Agency Securities, Deposits other banks
  - 50%: 1-4 Family Mortgage loans
  - 100%: Commercial Loans
  - 100% Off balance sheet items/Commitments to lend
  - 150%: Past due and non-accrual loans

Risk Based Capital Ratios

- Tier 1 Risk-Based Capital Ratio
  - Tier 1 Capital / Risk Weighted Assets
- Total Risk-Based Capital Ratio
  - Tier 1 + Tier 2 Capital / Risk Weighted Assets
- Tier 1 Leverage Ratio
  - Tier 1 Capital / total average assets
- Tangible Common Equity (TCE) Capital Ratio
  - TCE Capital / total average assets

How do Banks Make Money?

How does the Balance Sheet drive the income statement while leveraging capital?

Typical Bank Income Statement

+ Interest Income
- Interest Expense
+ Net Interest Income
- Provision for loan losses
+ Non-interest Income
- Non-interest expense
+ Pre-tax Income
- Federal Tax Expense
+ Net Income/Return of Assets

6 Major Components

AVERAGE INCOME STATEMENT
VIRGINIA BANKS 2019

BASED ON TOTAL REVENUES

Darden Community Bankshares

Assets	$ Amount		Liabilities/Capital	$ Amount
Cash and Due From	$ 10,000,000		DDA	$ 200,000,000
Fed Funds Sold	50,000,000		Savings/MMDA	370,000,000
Securities	150,000,000		CDs/IRA Certificates	300,000,000
Loans, Gross	735,000,000		Funds Purchased	0
Reserve Losses	(10,000,000)		Other Borrowings	20,000,000
Fixed Assets	40,000,000		Other Liabilities	10,000,000
OREO	5,000,000		Total Liabilities	900,000,000
Other Assets	20,000,000			
			Equity Capital	100,000,000
Total Assets	$1,000,000,000		Liabilities & Capital	$1,000,000,000

Bank Income Statement

Numbers divided by average assets

+ Interest Income	4.50%	45,000,000
- Interest Expense	0.75%	7,500,000
+ Net Interest Income	3.75%	37,500,000
- Provision for loan losses	0.15%	1,500,000
+ Non-interest Income	0.75%	7,500,000
- Non-interest expense	3.00%	30,000,000
+ Pre-tax Income	1.35%	13,500,000
- Federal Tax expense-20%	0.27%	2,700,000
+ Net Income/ROA	1.08%	$10,800,000

Bank Income Statement

Net Interest Income declines 50 bp

+ Interest Income	4.25%	42,500,000
- Interest Expense	1.00%	10,000,000
+ Net Interest Income	3.25%	32,500,000
- Provision for loan losses	0.15%	1,500,000
+ Non-interest Income	0.75%	7,500,000
- Non-interest expense	3.00%	30,000,000
+ Pre-tax Income	0.85%	8,500,000
- Federal Tax expense-20%	0.17%	1,700,000
+ Net Income/ROA	0.68%	$ 6,800,000

Net Interest Income

Maximizing earning assets AND
Minimizing the cost to fund

\+ Short-term funds sold

\+ Investment securities

\+ Loan Interest income

\+ Loan Fee Income (spread)

– Deposit interest expense

– <u>Other Borrowings/Funds purchased</u>

= NET INTEREST INCOME

Annualize if not an annual number

Non-Interest Income Sources

+ Deposit Fee Income
+ Treasury/Cash Management Fees
+ ATM/Card Interchange/Merchant Services
+ Investment Brokerage/Trust fees
+ Mortgage Loan Origination and Sales
+ Insurance Brokerage/Title Insurance
+ Bank owned life insurance
+ Other___________________________

Non-Interest Expenses

1. Salaries and Commissions
2. Employee Benefits
3. Facilities
4. Furniture and Equipment
5. Technology
6. Marketing and Advertising
7. Other___________________________

Bank Performance Ratios

- Ratios help us analyze health, strength, trends
- Ratios help with timeline comparisons
- Ratios "right size" banks for peer comparison
- Ratios help us analyze the performance
  - Net interest margin NIM
  - Return on Average Assets ROA
  - Return on Average Equity ROE
  - Efficiency Ratio/Net Overhead

Net Interest Margin

- The #1 profit driver for vast majority banks
- Measures the level of interest income after funding costs on your average earning assets
- A higher net number is better
- Calculation (annualize):
  - Interest income / Avg. Earning Assets
  - Interest expense / Avg. Earning Assets

  = Net Interest Income

WS # 9, 10, 11

Darden Community Bankshares

Assets	$ Amount		Liabilities/Capital	$ Amount
Cash and Due From	$ 10,000,000		DDA	$ 200,000,000
Fed Funds Sold	50,000,000		Savings/MMDA	370,000,000
Securities	150,000,000		CDs/IRA Certificates	300,000,000
Loans, Gross	735,000,000		Funds Purchased	0
Reserve Losses	(10,000,000)		Other Borrowings	20,000,000
Fixed Assets	40,000,000		Other Liabilities	10,000,000
OREO	5,000,000		Total Liabilities	900,000,000
Other Assets	20,000,000			
			Equity Capital	100,000,000
Total Assets	$1,000,000,000		Total Liab & Capital	$1,000,000,000
Earning Assets	$935,000,000			

Darden Community Bankshares

Assets	$ Amount	% AA	Liabilities/Capital	$ Amount	%AA
Cash		0.00	DDA	0	0.00
Fed Funds Sold	1,000,000	2.00	Savings/MMDA	2,500,000	0.68
Securities	5,250,000	3.50	CDs/IRA Certificates	4,500,000	1.50
Loans, Gross	38,750,000	5.25	Funds Purchased		0.00
Reserve Losses		0.00	Other Borrowings	500,000	2.50
Fixed Assets		0.00	Other Liabilities		
OREO		0.00	Total Liabilities		
Other Assets		0.00	Equity Capital		
INTEREST INCOME	45,000,000	4.50	INTEREST EXPENSE	7,500,000	0.75

AVG EARNING ASSETS = $935MM   NET INTEREST INCOME = $_______________

NET INTEREST MARGIN _____% - ______% = ______%