Bank Valuation

Financial Issues, Valuation Implications

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Outline

Introduction

- Current Industry Issues Affecting Bank Financial Analysis

Current Valuation Issues

- Asset Approach
- Guideline Company Method
- Guideline Transactions Method
- Discounted Cash Flow Method
- Financial Assets & Liabilities

Current Industry Issues

1. Overview

- **Sector overview – then vs. now**
- **Bank financial analysis is an exercise in risk assessment and measurement**
  1. Credit risk
  2. Interest rate risk
  3. Liquidity risk
- **Other Issues**
  4. Capital
  5. Holding company/subsidiary relationship
  6. Regulation

Sector Overview – Then vs. Now

	Assets > $10B		Assets $3B - $10B		Assets $500M - $1B	
	2006	**2013**	**2006**	**2013**	**2006**	**2013**
Pre-Tax ROA	1.83%	1.40%	1.73%	1.38%	1.48%	1.08%
ROA	1.21%	0.94%	1.12%	1.05%	1.02%	0.80%
ROE	**14.0%**	**8.3%**	**12.4%**	**9.0%**	**11.4%**	**7.7%**
ROTE (~)	**20.5%**	**11.3%**	**16.1%**	**11.5%**	**12.9%**	**9.4%**
Tangible Common / Tang Assets	**5.9%**	**8.3%**	**7.0%**	**9.1%**	**7.9%**	**8.5%**
Net Interest Margin	**3.41%**	**3.17%**	**3.87%**	**3.57%**	**4.02%**	**3.61%**
NIM less Net Charge-Offs	3.18%	2.72%	3.72%	3.28%	3.91%	3.28%
Fee Income / Revenue	36.4%	35.1%	24.6%	25.5%	19.4%	20.7%
Efficiency Ratio	**60.9%**	**67.6%**	**61.2%**	**68.5%**	**66.5%**	**74.1%**
Loans / Assets	62.6%	60.2%	67.6%	64.7%	70.8%	63.9%
NPAs+ORE / Loans+ORE	0.57%	1.42%	0.49%	1.97%	0.54%	2.38%
Net Charge-Offs / Avg Loans	0.23%	0.45%	0.15%	0.29%	0.11%	0.33%
Loan Loss Reserve / Loans	1.11%	1.41%	1.23%	1.47%	1.17%	1.59%

Source: FFIEC Bank Holding Company Performance Report Peer Data

1H14 returns are comparable to 2013 – lower credit and op expenses have offset lower NIMs and mortgage banking income

Sector Overview – Relative ROE

	Industry ROE Less 10-Year UST ("Spread")					LTM	1 Yr Avg	Current	Current
	84-89	90-99	00-07	08-13	84-13	ROE	10Y Yld	Spread	v. 84-13
Assets > $10B	1.7%	7.4%	9.1%	4.6%	**7.1%**	9.4%	2.6%	**6.8%**	-0.3%
Assets $1-10B	-1.7%	7.6%	8.3%	2.8%	**5.9%**	8.9%	2.6%	**6.3%**	0.4%
Assets $100M-$1B	-4.6%	5.7%	6.6%	1.7%	**5.0%**	8.4%	2.6%	**5.8%**	0.8%
Assets < $100M	-2.5%	3.8%	3.3%	1.0%	**2.4%**	6.5%	2.6%	**3.8%**	1.4%
All Insured Institutions	-3.0%	7.1%	8.4%	6.6%	**6.6%**	9.3%	2.6%	**6.6%**	0.0%

Source: FDIC

- **Typical "spread" to 10-year US Treasury 6% – 7%**
- **Latest 12 month (LTM) ROE through 2Q14 within the historical range**
- **But, increasing capital requirements and NIM pressure from very low rates may cause some narrowing**

Community Banks

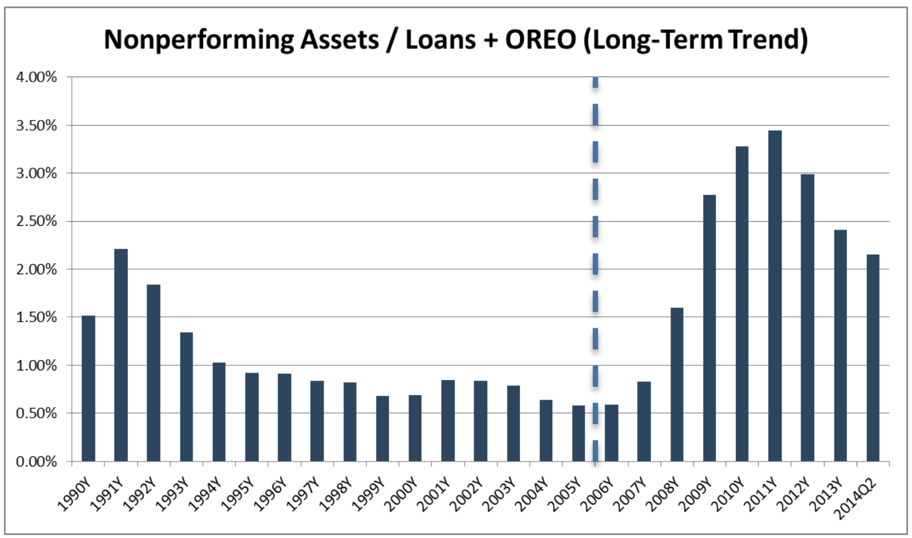
Recent Industry Trends

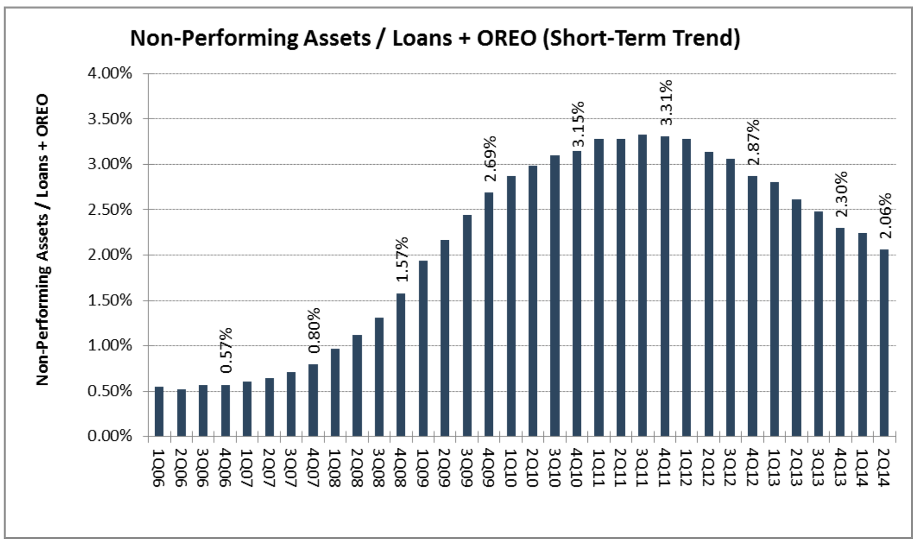
Current Challenges

- Yields under NIM compression via Fed’s zero interest rate policy (ZIRP)
- Loan demand still lagging in many regions
- Operating leverage is tough to achieve given pressure on revenues and rising compliance expenses
- Regulatory expectations regarding higher capital ratios (and more common equity within the capital structure)

1. Asset Quality

- Median nonperforming asset ratios remain elevated due to legacy assets
- Weaker underwriting of new loans?





Source: Mercer Capital research, SNL Financial
Peer group includes approximately 3,900 banks with assets between $100 million and $5 billion
OREO = Other Real Estate Owned = Foreclosed Property

1. Asset Quality

What trends would indicate higher credit risk?

- Level of and trend in non-performing assets
- Composition of the portfolio (e.g., level of construction and development loans; type of C&D loans, such as land vs. finished houses)
- Historical growth rates
- Weak market
- High loan yields
- Out-of-market loans, particularly purchased participations
- Large exposures to one borrower
- Experience of management
- Off balance sheet exposure (mortgage repurchase claims, for instance)
- Low charge-offs in relation to level of problem loans
- Less onerous loan terms (interest only versus amortizing loans, for example)

1. Analyzing Asset Quality

Loan Loss Reserve Adequacy

- Reserve / Loan Ratio
  - Effect: Declining ratio suggests that the bank's loan loss provision is not keeping up with growth or loan losses. Future income could be affected as provisions are recorded to account for previous growth
- Reserve / Non-Performing Assets
  - Effect: Declining ratio suggests that credit risk in the portfolio is mounting and reserve may not be adequate to cover potential losses
- Directional consistency
  - Expect that reserve should increase along with problem loans
- Composition of portfolio
- Gut instinct – impression of management, markets in which the bank operates, product types emphasized
- Migration to Current Expected Credit Loss (CECL) model for determining reserves in the offing

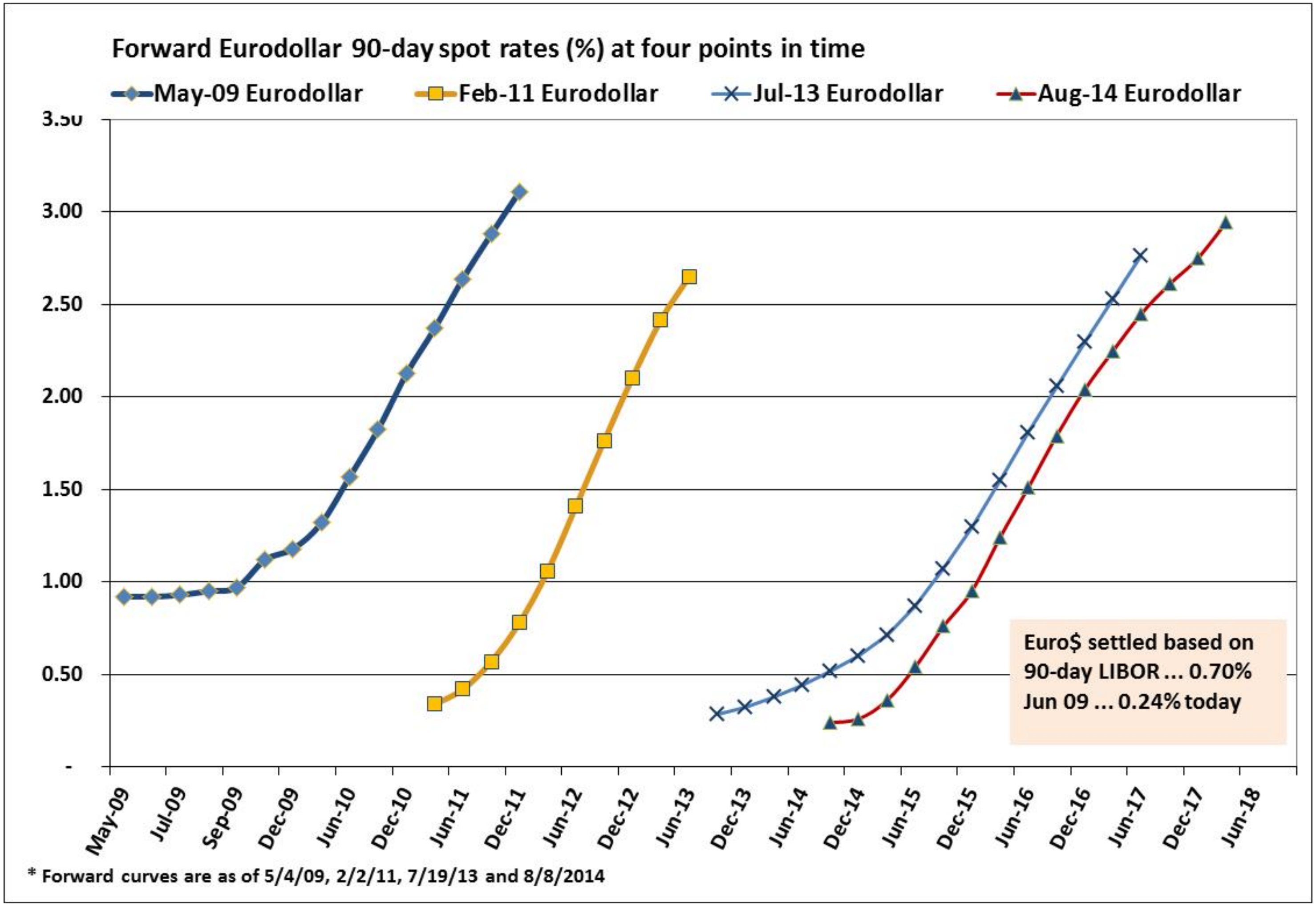
1. Asset Quality – Valuation Concerns

- **Assume that you believe the reserves are appropriate and management has a good grasp of the portfolio. How should you reflect asset quality issues in an appraisal?**
  - Locate a group of guideline companies/transactions that share the characteristics of the subject bank
  - Factor the asset quality issues into the cash flows of a discounted cash flow analysis or adjust the discount rate
- **Assume, on the other hand, that you don't believe the reserves are appropriate or that credit risk is greater than management believes. How should you deal with this issue?**
  - Adjust the loan loss reserve for the assumed deficiency
  - Adjust the guideline company/transaction multiples
  - Perform some type of scenario analysis in a DCF with higher credit loss scenarios

2. Interest Rate Risk

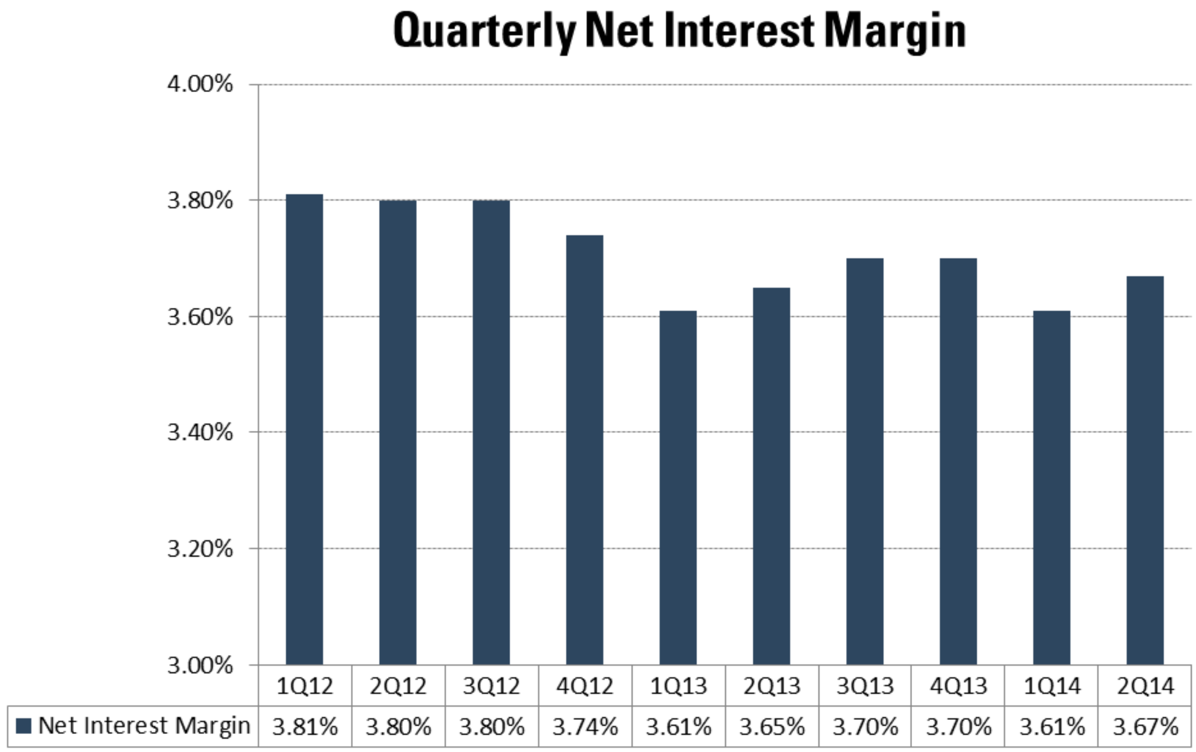
- **Interest rate risk represents the impact on revenue, earnings, or equity attributable to changing interest rates**
- **Community banks' net interest margins generally have been under pressure but NIMs appear have stabilized more recently**
  - Funding cost leverage is waning
    - Limited opportunities to reduce rates on non-maturity deposits and declining spreads between rates on new CDs and maturing CDs
    - Loan competition is aggressive; significant pressure on community banks to match longer term, fixed rate loan pricing offered by larger banks
    - Obtaining yield in the bond market is challenging without going out on the yield curve
- **In short, Fed's zero interest rate policy will be a challenge for banks**
  - Most at risk appear to be banks with larger commercial loan portfolios

2. Interest Rate Risk – Rising Rates Always Around the Corner



Source: WSJ and Bloomberg

2. Interest Rate Risk



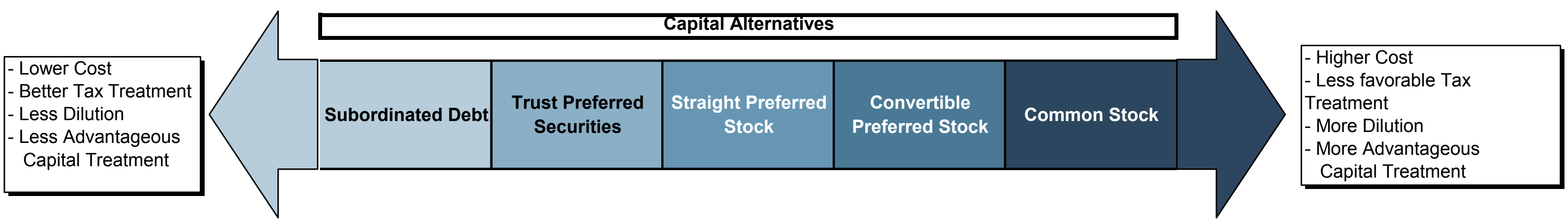
Source: Mercer Capital research, SNL Financial
Peer group includes approximately 3,900 banks with assets between $100 million and $5 billion
Net Interest Margin = Net Interest Income / Average Earning Assets (Yield on Earning Assets – Cost of Earning Assets)

3. Liquidity Risk

- **Liquidity risk represents the ability of banks to satisfy obligations to depositors or other creditors**
  - Usually appears in stressed environments or in conjunction with other risks
  - Greater pressure from regulators to hold on balance sheet liquidity
  - New liquidity rules limited to larger banks but may eventually trickle down

4. Capital

- **By regulation, banks need to maintain certain ratios of "capital" to assets**
  - Currently, "Tier 1 Capital" is basically defined as shareholders' equity, minus intangible assets, plus/minus the loss/gain on available-for-sale securities
    - Also can include preferred stock and trust preferred securities (subject to certain limits) in holding company's Tier 1 capital
    - TARP Capital Purchase Program preferred stock is Tier 1
  - "Tier 2" capital includes the loan loss reserve and subordinated debt



4. Capital

Capital standards will change significantly

- Transition to Basel III standards for banks and holding companies with more than $500 million in assets
- Introduction of a new capital measure – Tier 1 common ratio
- Significant tightening of rules regarding instruments that qualify as capital; hybrid instruments, such as trust preferred securities, to be phased out
- Less favorable treatment of items such as mortgage servicing rights
- New rules regarding the calculation of risk-weighted assets
- New capital buffer and impact on dividends and bonuses
- Implications
  - Need to augment capital to comply with Tier 1 common metric
  - Impact on return on equity

5. Holding Company/ Sub. Relationship

- **Relationship between the bank and holding company is important**
- **A bank holding company can appear reasonably stable from a consolidated perspective but have underlying financial challenges**
  - Given legal structure between bank and holding company, bank is the primary source of funds for the holding company (absent the sale of equity/debt by the holding company)
  - Holding company, in turn, has liquidity needs of its own (debt service, operating expenses, taxes)
  - Limitation may exist at the bank that prevents funds from being transferred to the parent
- **It's important to review the sources and uses of funds at the parent company level**

6. Regulation

- **Regulators have become much more assertive**
- **Significant focus now on compliance issues**
  - Bank Secrecy Act, Anti-Money Laundering, Mortgage Origination and Servicing, etc.
- **Valuation impact can be more difficult to quantify**
  - Most banks spending significantly more on compliance activities than five years ago
  - Potential restrictions on M&A, adverse scores on regulatory exams

Valuation Structure

Organizational Structure

- Most banks are wholly-owned subsidiaries of bank holding companies. Most valuation engagements, in turn, involve valuing the common stock of the bank holding company
- In the adjacent example, the valuation analyst would use shareholders’ equity of $7,000 and net income of $780 in the valuation analysis

Bank Holding Company Balance Sheet

Investment in the Bank (equal to the bank's equity) ($10,000)	Line of Credit ($1,000)
	Trust Preferred Securities ($2,000)
	Common Stock ($7,000)

Bank Holding Company Income Statement

Bank Net Income ($1,000)	LOC Interest ($60)
	Trust Preferred Interest ($160)
	Net Income ($780)

Common Valuation Metrics

- **Bank valuation analyses use multiples based on both income statement and balance sheet metrics**

Income Statement

» Historical net income

» Forward net income

» Pre-tax, pre-provision net income (net interest income, plus non-interest income, minus non-interest expense)

Balance Sheet

» Stated (GAAP) shareholders' equity

» Tangible shareholders' equity (stated shareholders' equity less acquisition-related intangible assets)

» Deposits

» Core deposits (variously defined, but can exclude CDs > $100,000, CDs > $250,000, and/or brokered deposits)

» Assets

Valuation Perspective

- **Public Market Value**
- Core profitability
- Growth record and prospects … EPS, TBVPS, DPS and revenue
- Organic vs. acquisition growth
- Credit quality
- Capital
- Risk perceptions
- Liquidity of shares
- Location

- **Acquisition Value**
- Core profitability
- Expense saves (who gets credit?)
- Revenue synergies (reality?)
- Number of bidders
- Alternative targets for bidders
- What a buyer can afford
- Stated multiples to seller vs. pro-forma multiples to buyer (P/E with expense savings, P/TBV after balance sheet marks)

Earning Power Analysis

- **How does your assessment of the income statement and balance sheet affect your analysis?**
- **Scenario 1: Assume that the bank is profitable**
  1. Adjust the income statement and balance sheet
  2. Use balance sheet-based measures as another indicator of value
- **Scenario 2: Assume that the bank's earnings are depressed or it is operating at a loss**
  1. Adjust the income statement and balance sheet
  2. Estimate earning power via a normalized return on assets or equity
  3. Emphasize balance sheet-based measures over income statement measures
  4. Discounted cash flow analysis

Adjust the Financial Statements

Common Adjustments:

Income Statement

» Eliminate non-recurring gains and losses (e.g., securities)

» Recognize normalized loan loss provision

» Normalize tax rate

» Purchase accounting amortization

» Life insurance proceeds

Balance Sheet

» Adjust to reflect market values of assets

- Securities carried at cost
- Investments in other companies carried at cost or equity

» Recognize estimated cost of settling contingent liabilities

» Normalize loan loss reserve

» Adjust intangible assets

Estimate Normalized ROA/ROE

- **Sometimes, a bank has a (really) bad year but otherwise has a profitable history. You can use historical returns to estimate earning power**
  - Danger is glossing over the exposures arising from the current environment
  - Past returns may not be indicative of future returns

	2014	2013	2012	2011	2010	2009
Average Assets	$277,372	$254,470	$231,336	$226,800	$210,000	$200,000
Average Equity	$23,148	$25,228	$22,785	$20,518	$18,205	$16,000
Net Income	($2,080)	$2,443	$2,267	$2,313	$2,205	$2,000
Return on Average Assets	-0.75%	0.96%	0.98%	1.02%	1.05%	1.00%
Return on Average Equity	-8.99%	9.68%	9.95%	11.27%	12.11%	12.50%
Average Return on Assets	1.00%	<> *excluding 2014*				
Average Return on Equity	11.10%	<> *excluding 2014*				

	ROA	ROE
Balance Sheet Parameter (2011)	$277,372	$23,148
x Normalized ROA / ROE	1.00%	11.10%
= Estimated Earning Power	**$2,779**	**$2,570**

Asset Approach

Asset Approach

Common adjustments

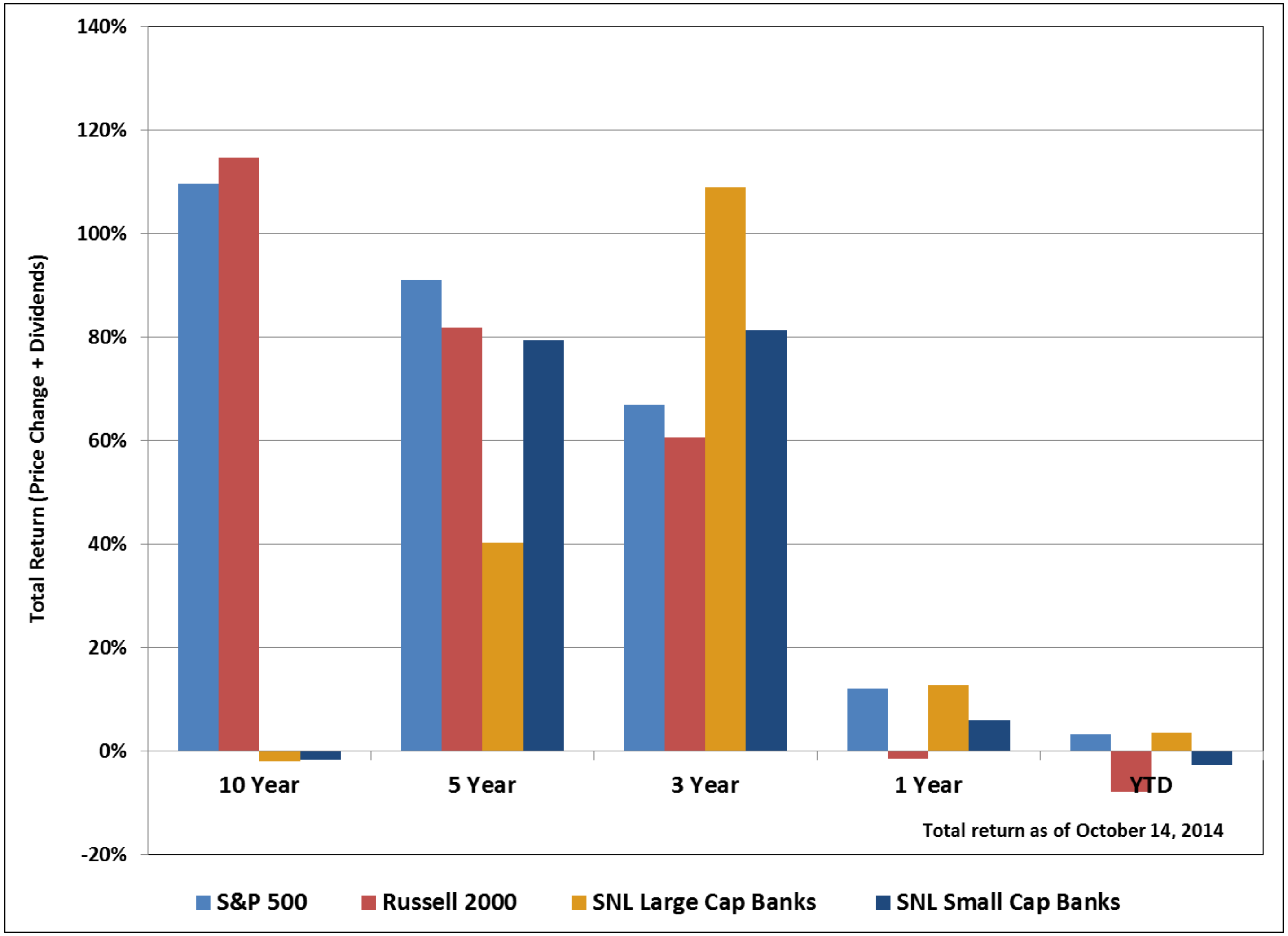
- Assets
  - Loans (interest and credit mark)
  - Other real estate owned
  - Securities carried as held-to-maturity
  - Unrecognized intangible assets (core deposit intangible asset)
- Liabilities
  - Certificates of deposit
  - Fixed term borrowings (FHLB advances)
  - Borrowings with wider/narrower credit spreads than at issuance (e.g., trust preferreds)
- Equity
  - Preferred stock

Guideline Company Method

Guideline Public Co. Method

- **Factors to consider in selecting guideline public companies**
  - Entity type (bank vs. thrift)
  - Size
  - Profitability
  - Location
  - Non-performing assets
  - Capital structure (TARP vs. non-TARP, capital ratios)

Sector Overview – Total Return



Source: SNL Financial

Trading Multiples: Asset Size Sort

- **Smaller banks have traded at discounts to larger banks; reflects (a) liquidity, (b) more limited access to capital, (c) growth opportunities, such as industry consolidation**

Return on Tangible Equity > 10%	Price / LTM EPS	Price / Tangible Book Value	Dividend Yield	Total Assets	Return on Tangible Equity	Non-Performing Assets / Tangible Equity + Reserves	Number of Banks
Assets $5 Billion - $10 Billion	14.9	188%	2.38%	6,789,173	13.3%	13.81%	27
Assets $1 Billion - $5 Billion	13.2	151%	2.50%	2,153,051	12.4%	10.42%	73
Assets < $1 Billion	11.0	120%	2.70%	722,037	11.5%	18.03%	24
Return on Tangible Equity 0% - 10%							
Assets $5 Billion - $10 Billion	17.8	134%	2.17%	6,311,374	8.3%	13.29%	11
Assets $1 Billion - $5 Billion	17.3	132%	1.35%	1,903,342	7.9%	15.52%	68
Assets < $1 Billion	15.7	103%	1.44%	630,428	6.8%	13.88%	52
Return on Tangible Equity < 0%							
Assets $5 Billion - $10 Billion	nm	nm	nm	nm	nm	nm	0
Assets $1 Billion - $5 Billion	nm	140%	0.00%	1,064,853	-4.0%	19.19%	9
Assets < $1 Billion	nm	160%	0.00%	468,348	-1.7%	81.04%	6

Notes:

Return on stated equity used when ROTE unavailable; price/BV used when price/TBV unavailable

Table includes 270 publicly traded banks with assets < $10 billion; market data as of October 13, 2014; financial data as of June 30, 2014

Trading Multiples: Profitability Sort

Price/tangible book value multiples correlated with return on equity

- Multiples for unprofitable banks reflect entity-specific factors, such as potential deferred tax asset valuation allowance reversals

	Return on Tangible Equity	Price / Tangible Book Value	Price / LTM EPS	Dividend Yield	Total Assets	Non-Performing Assets / Tangible Equity + Reserves	Number of Banks
Return on Tangible Equity > 15%	16.7%	202%	13.7	2.49%	3,630,673	10.30%	22
Return on Tangible Equity 10% - 15%	11.8%	148%	13.2	2.50%	1,877,033	12.23%	102
Return on Tangible Equity 5% - 10%	8.1%	124%	16.8	1.56%	1,389,712	13.95%	105
Return on Tangible Equity 0% - 5%	3.7%	90%	27.9	1.01%	916,665	13.17%	26
Return on Equity < 0%	-2.0%	152%	nm	0.00%	1,012,685	28.99%	15

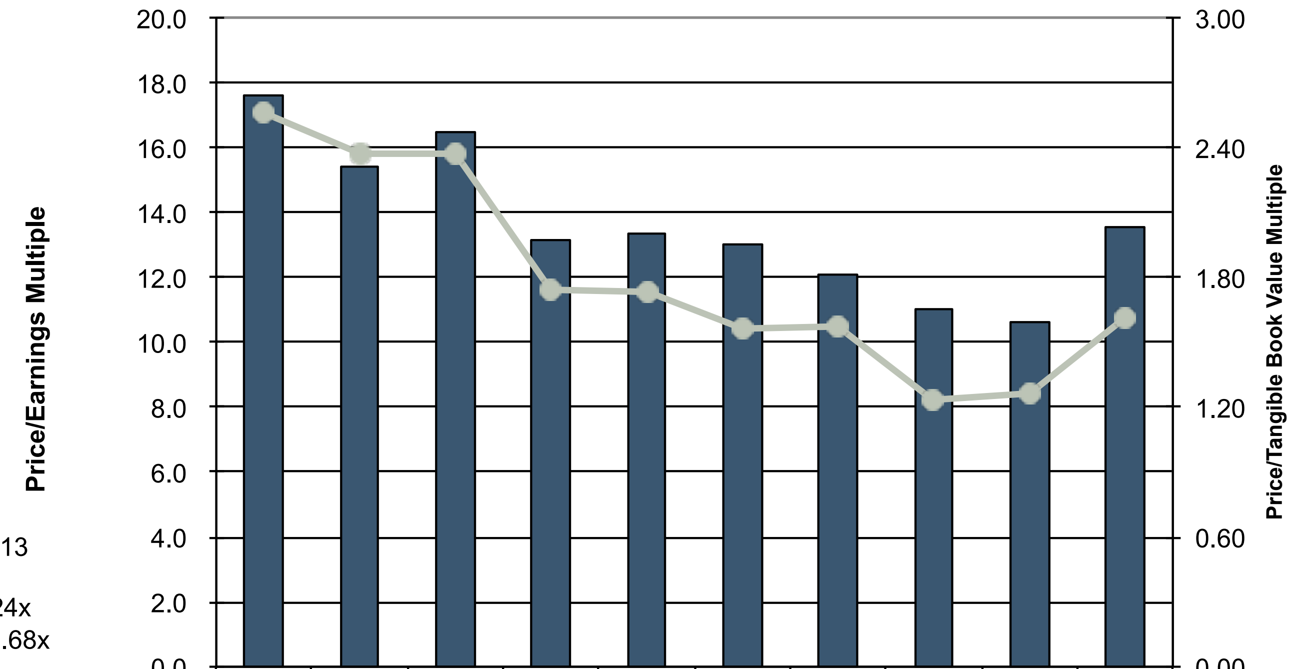
Notes:

Return on stated equity used when ROTE unavailable; price/BV used when price/TBV unavailable

Table includes 270 publicly traded banks with assets < $10 billion; market data as of October 13, 2014; financial data as of June 30, 2014

GPCM - Public Market Historical Trends

Price/Earnings and Price/Book Value Multiples
Banks with Assets of $500 Million - $5 Billion & Return on Tang. Equity > 10%



2004 - 2013
Medians:
P/E: 13.24x
P/TBV: 1.68x

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Price / Earnings	17.6	15.4	16.5	13.1	13.3	13.0	12.1	11.0	10.6	13.5
Price / Tang. Book Value	2.57	2.37	2.37	1.74	1.73	1.57	1.58	1.23	1.27	1.62

Source: Mercer Capital Research, SNL Financial

Guideline Public Co. Method

- **After you have identified a group of comparable companies, common valuation metrics are LTM earnings, forward earnings (one or two years), stated book value, and tangible book value**
- **Appraisers often adjust public company multiples for differences between the public companies and the subject company. For example:**
  - Size (banks appraisers value are often smaller than the smallest publicly traded banks)
  - Location (appraisers see more banks in rural areas)
  - Growth (banks in communities without much population or economic growth may have more limited growth prospects than the public companies)

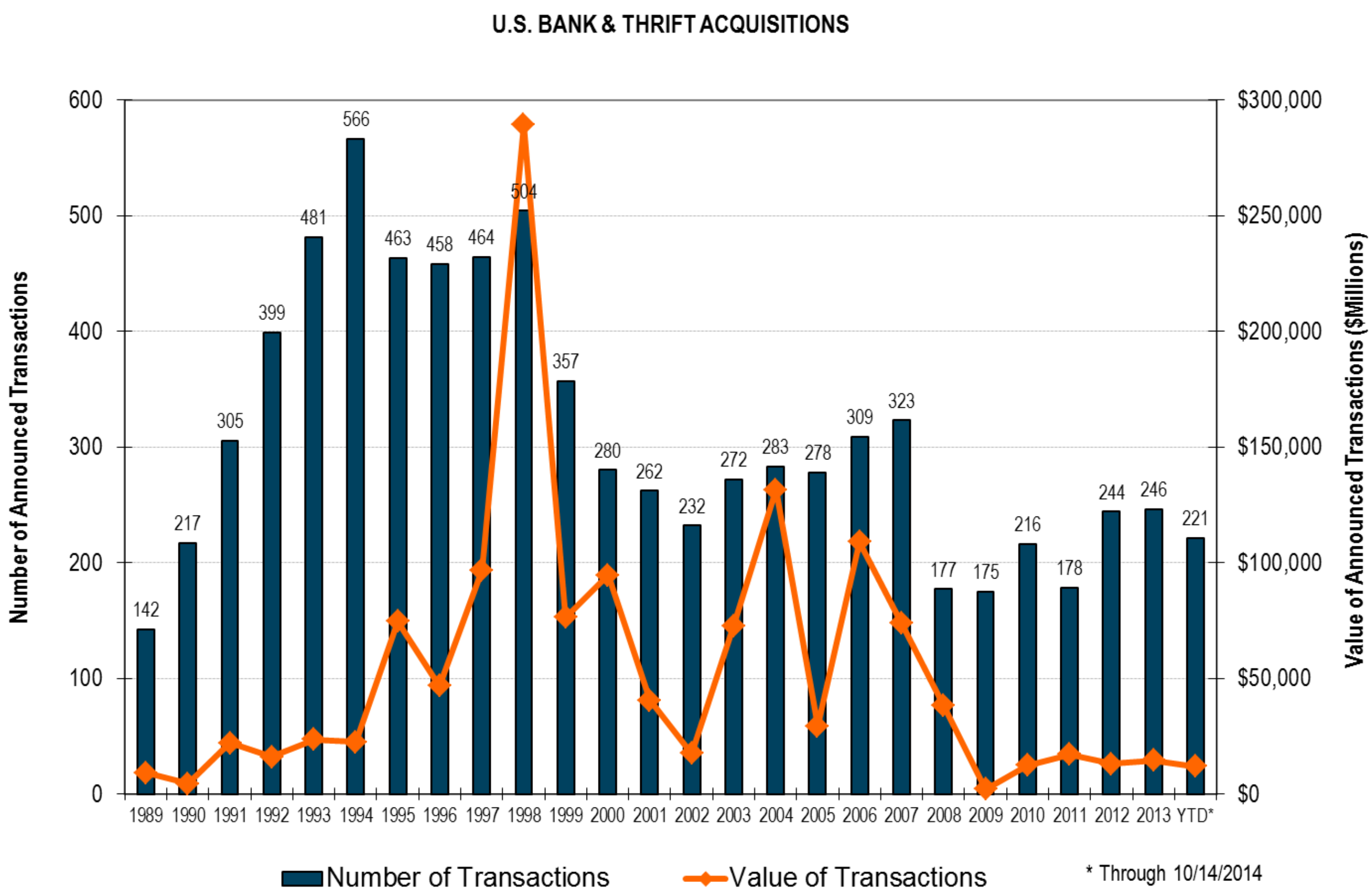
Guideline Public Co. Method

- **Adjustments for differences in the capital structure of the publicly traded banks and the subject bank may also be necessary**
  - For example, the subject banks may have tangible equity equal to 10% of assets; comparable ratio is 8% for the public banks
  - "Excess equity is valued dollar-for-dollar"

Capitalization of Tangible Book Value (Shareholders' Equity)		
Tangible Book Value		$10,000,000
Tangible Assets	$100,000,000	
Normalized Tangible Equity/Tangible Assets Ratio	8.00%	
Normalized Tangible Equity		8,000,000
Excess Tangible Equity		$2,000,000
Normalized Tangible Equity		$8,000,000
x Price/Tangible Book Value Ratio		1.25
= Capitalized Normalized Equity		$10,000,000
+ Excess Tangible Equity		2,000,000
= Capitalized Tangible Book Value		**$12,000,000**
INDICATED VALUE: GUIDELINE PUBLIC COMPANY METHOD		
- CAPITALIZED TANGIBLE BOOK VALUE		**$12,000,000**

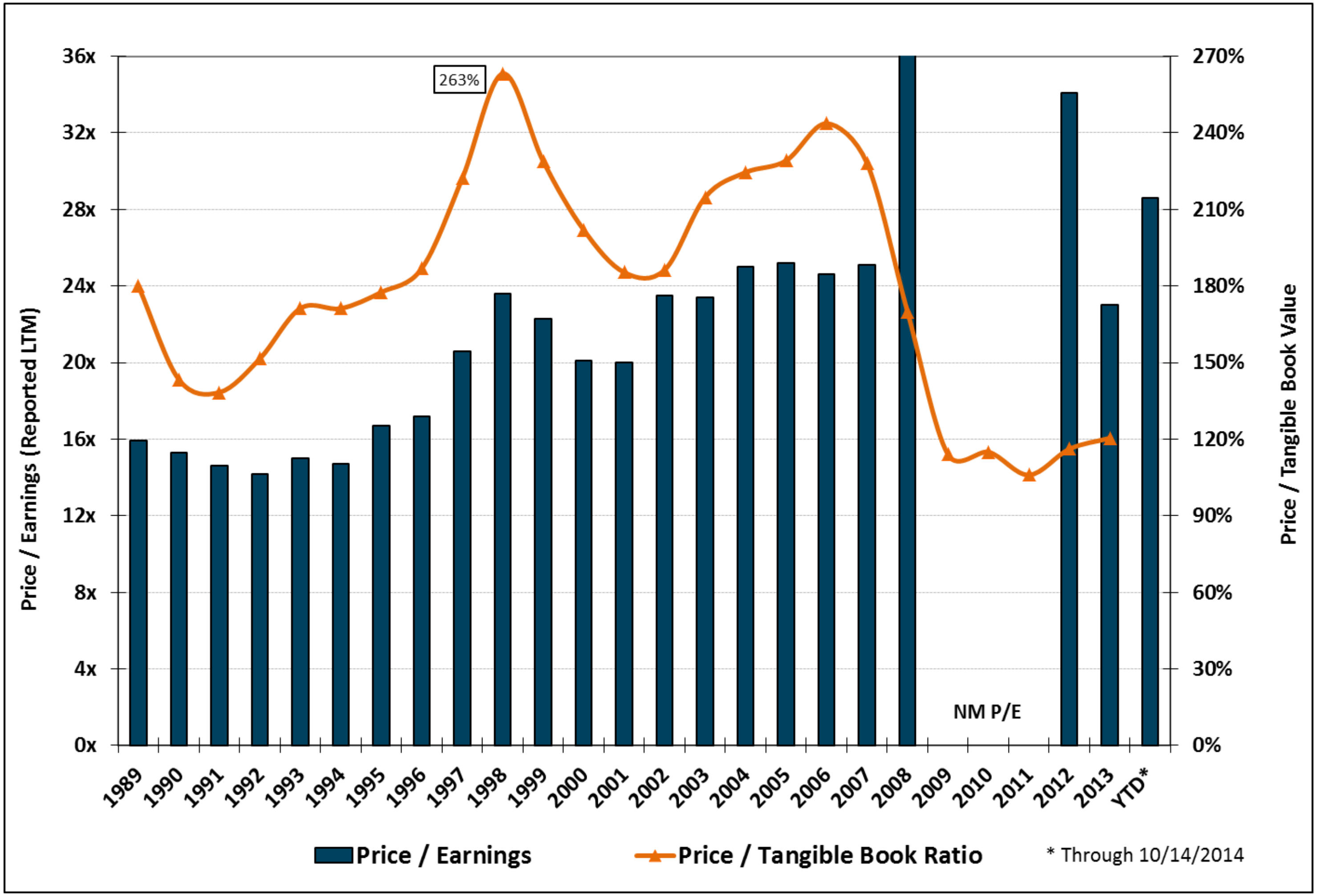
Guideline Transactions Method

National Bank M&A History



Source: SNL Financial

National M&A Pricing Multiples



Source: SNL Financial

Guideline Transactions Method

- Perhaps easier to apply to a small bank than a larger bank due to the fact that most transaction activity involves smaller banks
- The guideline transactions can often be tailored relatively closely to the subject bank's location, size, performance, etc.
  - Trade-off is the timeliness of data. How far back in time should you go?
    - Probably depends on the M&A markets at large

Guideline Transactions Method

- Search for comparable transactions based on:
  - Size
  - Profitability
  - Location (e.g., Texas)
  - Metropolitan vs. rural location (e.g., rural Texas vs. Dallas, Houston, etc.)
- Can derive indications of value using:
  - Net income
  - Book value and tangible book value
  - Assets
  - Core deposits

Guideline Transactions Method

- Difficulties have arisen in applying the guideline transactions method
  - Have the same issues in determining earning power as in the guideline public company analysis
  - More deals involve banks in distress with resultant difficulty in determining the true value of the transaction (e.g., contingent payments)

Guideline Transactions Method

» Example application of the guideline transaction method:

	Net Income	Tangible Book Value	Core Deposits
Financial Metric	$1,000,000	$10,000,000	$100,000,000
x Multiple	15.00	1.25	4.00%
= Product	$15,000,000	$12,500,000	$4,000,000
+ Tangible Book Value	na	na	10,000,000
= Indicated Value	**$15,000,000**	**$12,500,000**	**$14,000,000**

Note: Core deposits are defined by SNL as total deposits, less CDs over $100,000, less foreign deposits

Discounted Cash Flow Method

“CF” – Cash Flow Component

- **Since cash is fungible in a bank, the cash flow measure incorporated into a DCF model differs from that used in a non-financial company**
  - Most analysts use some form of dividends or “distributable tangible equity” in a DCF model
- **Valuing a minority interest**
  - Minority investors have no ability to compel the bank to manage to an optimal capital structure. Therefore, the cash flows discounted could be based on the bank’s historical and/or expected dividend policy

“CF” – Cash Flow Component

- **Valuing a controlling interest**
  - A control investor has the ability to manage to an optimal capital structure
  - Therefore, the analyst can estimate the “distributable tangible equity” that the bank generates, based on a target capital structure or regulatory capital norms
    - In other words, the amount of earnings above the amount necessary to remain in compliance with regulatory capital standards can be distributed
    - What is the “well capitalized” level now?
- **To derive a controlling interest value, the appraiser can adjust the projections for expected synergies**
  - Ordinarily, “synergies” take the form of reduced operating expenses. Expected expense reductions are reported by SNL Financial

“CF” – Cash Flow Component

- **Projections can involve varying degrees of complexity**
  - A projection of asset growth and a projected return on assets
  - A projection of pre-tax, pre-provision net income (i.e., net interest income, plus non-interest income, minus non-interest operating expenses), coupled with a projection of expected loan losses
  - A full projection of a balance sheet and income statement

“CF” – Cash Flow Component

Projection “risks”

- Projecting an income statement without a balance sheet
  - Remember that balance sheets drive income statements for financial institutions
- Not presenting a roll-forward of the loan loss reserve
  - Risk of ending up with unexpected outcomes, such as negative charge-offs (i.e., a net recovery of prior charge-offs)
- Not evaluating the flow of funds between the bank and holding company
  - For example, projecting cash expenses or distributions at the holding company when the bank cannot pay dividends to the holding company

“CF” – Projections

- **We often prepare the projections at the subsidiary bank level and then roll them up to the holding company**

Consolidated Net Income ($000)		2013	2014	2015	2016	2017	2018
			Projected Financial Statements				
Bank Net Income		$728	$656	$991	$1,115	$1,247	$1,386
1) Interest Expense -- Holding Co. Debt		0	0	0	0	0	0
2) Other Holding Company Expense		0	0	0	0	0	0
3) Interest Expense -- Trust Preferred		0	(140)	(140)	(140)	(140)	(140)
4) Income Tax (Expense) / Benefit	38.3%	0	54	54	54	54	54
CONSOLIDATED NET INCOME		**$728**	**$570**	**$905**	**$1,029**	**$1,160**	**$1,300**
Projected Shareholder Dividend Payout Ratio			12.00%	12.00%	24.00%	35.00%	46.50%
Projected Dividends Paid to Shareholders			**$68**	**$109**	**$247**	**$406**	**$605**

"CF" – Projections

- **Cash remaining at holding company level is distributed to shareholders**

Holding Company Cash Flow	*Projected Financial Statements* 2014	2015	2016	2017	2018
Cash Receipts:					
Dividends from Bank	$164	$198	$334	$499	$693
Income Tax Benefit	54	54	54	54	54
Trust Preferred Issuance	0	0	0	0	0
Additional Borrowings	0	0	0	0	0
Total Inflows	**$218**	**$252**	**$388**	**$552**	**$747**
Cash Disbursements:					
Holding Company Expenses	$140	$140	$140	$140	$140
Injections into Bank Subsidiary	0	0	0	0	0
Share Repurchase	0	0	0	0	0
Common Dividends Paid	68	109	247	406	605
Total Outflows	**$208**	**$249**	**$387**	**$546**	**$745**
REMAINING CASH FLOW AVAILABLE	**9**	**3**	**1**	**6**	**2**

Discount Rate

- **Do you use a cost of equity or a weighted average cost of capital for a bank?**
  - Generally, analysts use a cost of equity
  - A WACC constructed with the cost of deposits as an input makes little sense (cost of deposits does not increase along with leverage)
  - However, a WACC incorporating the holding company's cost of borrowings (such as the cost of its trust preferred securities) makes some theoretical sense
    - Effectively, the analyst is assuming that the bank's regulatory capital requirements are funded with some mixture of debt and equity and the cost of such capital can be captured in a WACC

Valuation of Financial Assets & Liabilities

Discount Rate

- **Assets and liabilities commonly valued to comply with ASC 805**
  - Loan portfolio
  - Depositor customer relationships (core deposit intangible asset)
  - Other customer relationships
    - Insurance
    - Trust/asset management
  - Certain liabilities
    - Time deposits
    - FHLB advances
    - Holding company funding (sub debt, trust preferred securities)

Discount Rate

Loan portfolio valuations

- Key estimates:
  - Prepayment speeds
  - Credit losses
    - Probability of default / loss given default methodology
  - Discount rates
    - Rates on newly originated loans
    - Rates on traded debt instruments
    - Funds transfer pricing analyses

Discount Rate

Core deposit valuations

- Generally valued using a “replacement cost” approach
- Key estimates:
  - Cash flow stream
    - Fully loaded cost of deposits (interest cost + servicing costs – noninterest income)
    - Cost of alternative funding
  - Attrition rates
    - Study of account closure activity
  - Discount rate

Information Sources

From Bank

- **Board packets**
- **Asset quality information:**
  - Past-due/classified loan reports
  - Loan loss reserve calculation and supporting documentation
  - Write-ups of significant classified loans
  - Schedule of other real estate owned
  - Loan participation reports
  - Loans to large borrowers report
  - Loan concentration report (such as for industry concentrations)
  - Commercial real estate concentration analyses
- **Securities portfolio inventories**
- **Asset/liability management reports**
- **Capital plan**

Publicly Available

- **Federal Financial Institutions Examination Council (www.ffiec.gov)**
  - Regulatory filings for bank holding companies (FR Y-9s)
  - Regulatory filings for banks (Call Reports) and thrifts (Thrift Financial Reports)
  - Uniform Bank Performance Reports – peer group data
- **FDIC (www.fdic.gov)**
  - Regulatory filings for banks (Call Reports) and thrifts (Thrift Financial Reports)
  - Reviews of industry performance
  - Summary of Deposits – tracks deposit market share for banks
  - Regulatory orders
- **SNL Financial (Charlottesville, VA) (www.snl.com)**
  - Track and sell data on bank M&A transactions
- **American Bankers Association (www.aba.com)**
- **American Banker newspaper (www.americanbanker.com)**
  - In particular, see Banker's Glossary (http://www.americanbanker.com/glossary/a.html)
- **Mercer Capital (www.mercercapital.com)**
  - Monthly *BankWatch* publication, summarizing regional trends in bank stock pricing and bank M&A activity
  - *The Bank Director's Valuation Handbook* provides an overview of valuation issues frequently occurring among financial institutions

Questions?

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