

Analyzing & Investing In Community Banks

Notes

My goals in writing this book were to provide:

(1) a good introduction to bank stock investing to someone somewhat familiar with accounting and investing, in general, and

(2) a source of reference for bank analysts that occasionally forget some of the minutiae of the trade, like the proper risk-weighting for multi-family residential loans (50%, by the way). Whether or not I've accomplished this goal is for you to decide.

Chapter 1: Introduction To Banks & Bank Investing

- At its core, the banking industry is relatively easy to understand. In its simplest form, the business of banking entails yield curve arbitrage; that is, banks borrow at the short end of the yield curve and lend at the long end. More specifically, banks take in funds, in the form of deposits and borrowings, at one interest rate and lend those funds out or invest them at (presumably) higher rates in the form of loans and investment securities.

In its more evolved form, the banking business entails the creation and distribution of a wide array of credit-related (e.g., loans and lines of credit) and non-credit-related (e.g., cash management and trust administration) services to businesses and individuals. In order to accomplish this task successfully, while providing an adequate return to shareholders, a bank's management must be adept at several different activities, including marketing, pricing, risk management, operations and expense control, to name just a few. In addition, bankers must be able to operate in a highly competitive, heavily regulated environment, frequently competing against unregulated competition.

- As financial intermediaries, banks serve three entities: depositors, borrowers and shareholders. A bank that loses a significant portion of any one of these groups will not remain in business for very long. Without depositors, a bank has no funds with which to generate a profit through lending and investments. Without borrowers, there is no one to lend to or invest in. (There are banks that invest solely in securities, as opposed to underwriting loans, but such institutions are extremely rare.) And without shareholders, there would be no funds with which to capitalize the bank.

- Service is extremely important to borrowers, and particularly to business borrowers. While most consumer lending has become somewhat commoditized over the last 20 years, business borrowers still place a high value on service. Commercial clients often interview several bankers to find the one that best understands and recognizes the uniqueness of their business and its needs.

To the average commercial borrower, the most important elements of service are:

(1) responsiveness to loan requests (quicker = better)

(2) ability and willingness to help the customer solve financing problems, and

(3) flexibility with terms.

- It is important for investors new to bank research to be able to differentiate between a bank and a *Savings & Loan* (“S&L” or “thrift”). The loan portfolio of a typical bank is generally dominated by commercial/industrial (“C&I”) loans and commercial real estate loans. Thus, the loan theme for most banks is clearly “commercial.” Thrifts, on the other hand, hold loan portfolios that are dominated principally by residential real estate mortgages and, to a lesser extent, mortgages on commercial real estate. In fact, in order to qualify for a thrift charter (that is, in order to be recognized as a thrift by federal regulators and the *Federal Home Loan Bank*), a depository institution must have at least 65% of its assets invested in “qualified thrift investments,” which include real estate mortgages or securities collateralized by real estate such as *mortgage-backed securities* (“MBS”).

- Now, you can probably see where this is heading: because most of the loans on banks’ books are less commoditized (with correspondingly higher yields) than those of most thrifts, and because most banks’ interest costs are lower than those of most thrifts, the typical bank has a wider *spread* between the average yield generated on its assets and the average rate paid on its liabilities than the typical thrift. And, as one might expect, greater spreads beget greater profitability, all else being equal.

- **Retail banks** are those banks that cater primarily to individuals. The typical retail bank is heavy in consumer deposits (e.g., checking, money market and certificates of deposit) and consumer-oriented loans (e.g., credit cards, home equity, auto, etc.). Consequently, retail banks tend to establish branches primarily in suburban areas and/or residential urban neighborhoods.

Business banks, as the name implies, cater principally to businesses. The typical business bank has large balances of low-cost DDAs and higher-yielding C&I loans. Thus, business banks tend to establish branches in commercial centers.

Commercial real estate banks concentrate on – you guessed it – commercial real estate. The typical commercial real estate bank has a deposit base that resembles that of a retail bank (although generally heavier in certificates of deposit) and a loan portfolio dominated by credits collateralized by income-producing commercial real estate. Like retail banks, commercial real estate banks tend to establish branches near consumer depositors.

Private banks cater principally to wealthy individuals and business owners, providing them with asset management (as well as trust and estate planning) services in addition to standard lending services. The private banking model is typically the most profitable of all of the banking business models because asset management is a business with very high returns on capital. In addition, private banks tend to have very low-cost deposit

bases. We will not spend much time on private banks in this book because most private banks are relatively large and few fit under the “community bank” umbrella.

Among thrifts, there are also three primary business strategies, each defined by a unique lending focus: (1) single-family residential, (2) multifamily residential (i.e., apartment buildings), and (3) commercial real estate. Of the three lending focuses, single-family residential is the most competitive (and least risky), followed by multifamily residential and commercial real estate, respectively. Thus, as one might expect, yields on single family residential loans are lower than those on multifamily residential loans and commercial real estate loans. And, while thrifts may differentiate their lending strategies, their deposit gathering strategies tend to be quite similar, with a heavy reliance on high cost certificates of deposit (CDs). Consequently, interest rate spreads for those thrifts that concentrate on single family residential loans tend to be smaller (and profitability lower) relative to those S&Ls that concentrate on multifamily residential loans and commercial real estate loans.

- *Cash and due from banks* represents the most liquid category of any bank’s assets, followed by *fed funds sold*, which are essentially overnight loans made (at the *fed funds rate*) to banks in need of liquidity. These liquid assets are necessary in order to meet the bank’s operating expenses as well as to meet withdrawals by depositors. Most banks keep approximately 15% to 25% of total assets in the sum of *cash and due from banks*, *fed funds sold* and *short-term investment securities* (those with maturities of less than two years), in order to satisfy these liquidity requirements. It’s important, however, not to keep too much cash on hand because this cash, as a non interest-earning asset, doesn’t generate any interest income.

Balance Sheet Ratios

Equity/Asset Ration

The equity-to-asset ratio is the simplest measure of a bank’s leverage. Leverage is a crucial concept in banking because banks are highly leveraged relative to industrial companies. And when one is operating or investing in a highly-leveraged institution, it is critical to properly value the company’s assets.

An example will illustrate this point. Let’s start with a typical community bank, which operates with an equity-to-asset ratio of approximately 8%. Thus, the ratio of assets to equity in this example is 12.5 to 1. Consequently, if the bank’s assets are actually worth 1% less than their stated value, the bank’s book value is overstated by 12.5%. If the bank’s assets are actually worth 12.5% less than their stated value, the bank’s equity is worthless. Clearly, leverage can be a killer in the banking business.

As a result of the banking industry’s use of leverage, it is said that **a bank’s assets are its liabilities, and its liabilities are its assets**. Which, in essence, means that a bank’s potential problems (re: future liabilities) will be on the asset side of the balance sheet (in the form of bad loans), while its primary economic asset is the value of its deposit base (liabilities from a balance sheet perspective), and the lower the costs associated with that deposit base, the more valuable it is.

Tangible Equity Ratio

Tangible equity (total shareholders' equity – intangible assets) as a percentage of tangible assets (total assets – intangible assets)

For analytical purposes, I prefer to use the tangible equity ratio when looking at a bank's leverage because it's a more conservative way of viewing balance sheet risk than using the equity-to-asset ratio. Having said that, as long as the intangible assets on a bank's balance sheet are fairly valued, then it's fine to use the equity-to-asset ratio. The problem, of course, is that it's often difficult to value intangible assets.

Liquidity Ratio

Liquid assets (cash and due from banks + fed funds sold + short-term investment securities – pledged securities) as a percentage of total liabilities.

Most community banks operate with a liquidity ratio in the range of 15% to 25%. Many thrifts, however, operate with lower liquidity ratios than banks because their deposit bases tend to be less concentrated and subject to immediate withdrawal.

Loan/Deposit Ratio

Gross loans held for investment as a percentage of deposits.

The loan-to-deposit ratio is just another measure of how much leverage a bank is applying to its balance sheet; that is, how risky the bank's balance sheet is. The higher the loan-to-deposit ratio, the riskier the balance sheet, all else being equal. Most well-run community banks operate with a loan-to-deposit ratio in the range of 70%-85%. With a loan-to-deposit ratio of less than 70%, a bank is said to be "under-loaned," which means that the bank has too much money in low-yielding assets relative to higher-yielding loans.

When this occurs, investors often suggest that the under-loaned bank "grow the balance sheet," which is industry parlance for underwriting more loans. Assuming a "normal" interest rate yield curve (that is, low rates at the short end and higher rates on the long end), a bank's NIM will expand as its loan-to-deposit ratio increases.

Once a bank's loan-to-deposit ratio moves into the 70%-85% range it is said to be "loaned up," meaning that the bank has achieved an appropriate balance between loans and other interest-earning assets. Once the loan-to-deposit ratio moves above 85% the bank may be taking on more risk than it should, although there are exceptions.

Borrowings/Deposits

Borrowings (FHLB advances + long-term debt) as a percentage of deposits.

Generally, if a community bank's borrowings total more than 20% of its deposits, improper leverage may be an issue. Likewise, if a thrift's borrowings total more than 35% of its deposits, caution is in order.

Demand Deposits/Total Deposits

Demand Deposit Accounts as a percentage of total deposits.

Most highly profitable community banks can trace their profitability to the presence of large DDA deposit balances, on which no interest is paid.

At a successful community bank, DDAs will typically comprise at least 15%-20% of the total deposit base, and there are some community banks in which DDAs comprise as much as 40% of the total deposit base. Clearly, when 40% of a bank's deposits are interest free, the bank can make a lot of other mistakes (in the area of operating expenses, for example) and still remain quite profitable.

At the average thrift, on the other hand, DDAs generally amount to less than 5% of total deposit balances.

Certificates of Deposit/Total Deposits

Certificates of Deposit as a percentage of total deposits.

CDs are the most volatile and expensive deposits from a funding standpoint. Because they carry higher yields than the other deposit account types, CDs tend to attract retail customers that "rate shop," or simply look for the highest deposit yield attainable for their savings. Consequently, CD buyers are not typically as stable from a funding standpoint as transaction depositors (DDAs, savings, checking, etc.) – they will often leave the bank if another bank offers higher CD rates.

Typically, CDs should not comprise more than 30% of a community bank's total deposit base. Thrifts, on the other hand, often have deposit bases comprised of 70% or more CDs.

Jumbo Certificates of Deposit/Total Deposits

Jumbo Certificates of Deposit as a percentage of total deposits.

Jumbo CDs (or "Jumbos") are large time deposits sold only in denominations of \$100,000 or more. More often than not, banks buy jumbos from investment banks and other large financial institutions.

For most highly profitable community banks, jumbos comprise less than 10% of total deposits. For thrifts, however, jumbos often comprise 20% or more of the total deposit base.

- In addition to its cyclical nature, the other principal challenge associated with mortgage banking is that the business is extremely competitive due to the commoditized nature of the product offering. **Consequently, although the business always seems attractive when times are good, the fact remains that it's difficult to earn an economic profit in mortgage banking over a full interest rate cycle because the troughs are so**

deep.

- Since the early-1990s, non-interest revenue has come to comprise an increasingly greater portion of total revenue for the U.S. banking system as a whole. This trend is largely the result of the larger national and regional banks' desire to reduce earnings sensitivity to changes in interest rates (by diversifying their revenue streams) and increase their ability to *cross sell* multiple products to their various customer bases. To achieve this goal, many banks have acquired insurance agencies, mortgage banks, asset managers and/or broker/dealers in recent years.

While these banks' revenue streams have been diversified – true by definition – it's debatable as to whether their earnings are less volatile as a result. While insurance agencies are relatively non-cyclical, mortgage banking, asset management and brokerage activities are highly sensitive to changes in interest rates. Mortgage banking slows considerably as rates rise, all else being equal. Likewise, the performance of both stocks and bonds is negatively correlated with the direction of interest rate movements over the long term, significantly impacting the profitability of asset managers. Finally, brokerage firm profits are also negatively correlated with interest rate moves over long periods of time. Poor stock and bond performance, after all, does not augur well for trading activity or advisory work (e.g., raising capital, mergers and acquisitions, etc.).

Another issue to consider when evaluating the effectiveness of the banking industry's diversification drive over the last several years is the perceived quality of the businesses banks have been acquiring. While asset managers and insurance brokers tend to trade at relatively high price/earnings multiples (and for good reason), mortgage banks and broker/dealers tend to trade at earnings multiples below those of banks. **Which begs the question: Why do so many banks get into businesses that most market participants deem to be inferior to that of the business of simply gathering deposits and underwriting loans? Other than managerial "animal spirits," I have no idea.**

- **Return on Average Assets (ROAA):** Net income as a percentage of average assets (annualized).

ROAA is the best measure of overall profitability for a bank because it removes the effect of leverage (unlike *return on average equity*, as discussed below). The typical community bank generates an ROA of around 1.00%. There are, however, community banks that generate ROAs of as much as 1.50%-2.00%. These banks generally have a very low cost of funds and are run very efficiently from an operating perspective.

Calculation: Net Income After Taxes/Average Total Assets = ROAA

- **Return on Average Equity (ROAE):** Net income as a percentage of average equity (annualized).

ROAE is one of the most important measures of profitability where the investor is concerned. While ROAA removes the effects of leverage, and thus is a more "pure" measure of profitability than ROAE, ROAA doesn't tell us how efficiently management is allocating shareholders' capital, which is a critical determinant of a bank investor's

return from holding a bank stock over the long term.

Calculation: Net Income After Taxes/Average Equity = ROAE

- **Loan Loss Ratio:** Net charge-offs as a percentage of average loans (annualized)

Net charge-offs are defined as *charge-offs* (that portion of a loan that is written off) less *recoveries* (that portion of a previously charged-off loan that is subsequently recovered).

History has shown that the marketplace will not allow banks to price commercial loans at significantly higher rates than the average bank is offering to borrowers with similar risk profiles. Or, in economic parlance, **the market for commercial loans is fairly “efficient.” Therefore, a strategy to loosen credit standards in an attempt to increase loan yields and loan volume is rarely, if ever, successful in the long run. History has shown that the most consistently profitable banks are those with conservative lending policies.**

- **Efficiency Ratio:** Operating expense as a percentage of (net interest income + non-interest income)

The efficiency ratio measures the operating efficiency of a bank relative to its revenue generating capabilities.

To repeat, the efficiency ratio measures operating costs *relative* to revenue. Banks with wide NIMs, for example, tend to have higher operating expenses than those with slim NIMs because the former typically spend more money on customer service, in order to gather and retain low-cost deposit relationships, than the latter.

An efficiency ratio of less than 55% is typically considered to be pretty good for a bank. An efficiency ratio of above 65%, on the other hand, suggests that the bank’s cost structure is bloated. Banks that manage to sustain efficiency ratios of less than 45% are unusual, although not unheard of.

- **Non-interest Expense/Average Assets:** Non-interest expense as a percentage of average assets (annualized).

Unlike the efficiency ratio, the ratio of non-interest expense to average assets gets at the heart of a bank’s operating efficiency on an absolute basis. A bank with a lean cost structure will have a low ratio of non-interest expense to average assets, and a bank with a high cost structure will display the opposite.

Chapter 4: Asset/Liability Structure

- The banking business in its simplest form entails yield curve arbitrage; that is, banks borrow at the short end of the yield curve and lend at the long end. Because a bank’s individual assets and liabilities have widely varying rates, yields, maturities and terms (e.g., fixed versus variable rate), however, it’s critically important that the institution properly manage its asset/liability structure.

Consequently, it's imperative that a bank investor understand an institution's asset/liability structure and whether the company's earnings will benefit from or be impaired by a particular change in market interest rates.

- ***Asset Sensitive Banks (ASB) Net Interest Income rises in proportion with rising interest rates.***

- ***Liability Sensitive Bank (LSB) Net Interest Income rises in proportion with falling interest rates.***

- That is, the exact degree to which ASB and LSB's margins will be affected by changes in interest rates will not be known until after the fact. As interest rates change, after all, there are a number of actions that individual banks can undertake to mitigate the effects of such changes, including asset/liability repricing, balance sheet restructuring and the use of derivatives, and such actions are not reflected in these exhibits. Nevertheless, these tables are valuable for providing investors with a general sense of a bank's exposure to changing interest rates.

The most important determinants of a bank's interest rate sensitivity are (1) the ratio of non-interest bearing demand deposits to total deposits, (2) the level and maturities of borrowings, (3) the ratio of adjustable-rate loans to fixed-rate loans, and (4) the institution's securities yields.

- One must also be aware of the extent to which a bank's adjustable-rate loan portfolio is exposed to *caps* and *floors*. A cap is the maximum interest rate permitted over the term of a loan. A floor is the lowest interest rate that may be charged during the term of a loan.

In general terms, commercial banks tend to be more asset sensitive (greater DDA balances, fewer fixed-rate loans) while savings and loans tend to be more liability sensitive (lower DDA balances, more fixed-rate loans).

Consequently, as a general rule, it's better to be asset sensitive than liability sensitive.

Asset sensitivity, by its very nature, typically suggests a higher level of low-cost funding – that is, DDAs and other transaction accounts – than liability sensitivity. Consequently, although liability sensitive companies may *benefit* more than asset sensitive institutions in a declining rate environment, the latter tend to have a higher *absolute* interest spread than the former regardless of the interest rate environment as a result of higher balances of low-cost funding.

- The extent to which an institution's borrowings affect its interest-rate sensitivity depends on the level of borrowings and the maturity of such borrowings. Banks with few borrowings tend to have lower-than-average loan-to-deposit ratios and higher levels of low-cost deposits. Consequently, most banks with low levels of borrowings tend to be asset sensitive. However, a bank can be asset sensitive with a high level of borrowings if most of these borrowings have fixed rates with long maturities.

Conversely, an institution that's heavy in variable rate borrowings with short maturities is likely to be liability sensitive.

All else being equal, the greater the ratio of a bank's variable-rate loans to its fixed-rate loans, the more asset sensitive the institution's balance sheet.

Chapter 5: Asset Quality & Reserve Coverage

- Asset quality (or *credit quality*) is the single most critical determinant of any bank's success or failure. A slim NIM and high operating expenses, while hindrances to high profitability, typically won't bury a bank. Poor credit quality, however, can sink the ship. To use a simple example, \$100 million in loans with a net spread of 5% will generate \$5 million in pre-tax income. One \$5 million loan that goes bad will offset all of that income.

If a bank has poor loan underwriting or if its local economy suffers, it will be a poor financial performer at best, and at worst it will go out of business. The only thing that can save a bank with poor asset quality is sufficient excess capital to absorb the loan losses or an injection of additional capital.

From an objective standpoint, the most useful asset quality ratios measure the relative size and trend of a company's problem loans and the size of the reserve that the company has established to protect depositors and shareholders against potential loan losses.

The ratio of *non-performing assets to loans and OREO (NPA Ratio)* gives us a relative measure of a bank's reported problem credits. The most common measure of NPAs includes *non-accrual loans* (those on which the borrower is so far behind in interest payments that the bank has ceased accruing interest income), *restructured loans* (those on which concessions have been made to the borrower as to interest rates or principal repayments; also known as *troubled debt restructurings*, or *TDRs*) and *other real estate owned* (foreclosed properties). A more conservative measure of NPAs includes loans that are 90 days or more past due, but on which the bank is still accruing interest.

- The NPA ratio is generally between 0.40% and 1.25% for most community banks in good economic times. When the economy is in the doldrums, these numbers more than double in the aggregate. When analyzing banks with NPA ratios north of 1.50% in an expanding economy, it is important to find out why, exactly, the bank is having credit quality problems.

- Exhibit 5B shows the ten categories (or "buckets") of risk for a bank's assets from a regulatory perspective. Categories three through ten all deal principally with loans, but our focus is categories six through ten, as it is in this range that loans migrate from performing to non-performing status. These are the categories – *watch list*, *special mention*, *substandard*, *doubtful* and *loss* – where banks tend to play games, if they are predisposed to such flimflam in the first place. More specifically, banks that don't have a conservative credit culture will often classify special mention loans as watch list loans, doubtful loans as substandard loans, loss loans as doubtful loans, etc. Because the criteria underlying these classifications are not set in stone and thus open to some level of interpretation, banks have some leeway in placing loans into these various buckets. Unfortunately, investors have only management's reputation to go on when trying to gauge the potential

for such monkey business. It is for this reason that there is no substitute in community bank investing for industry experience and contacts.

- The provision is comprised of *specific reserves*, which are reserves set aside for specific problem loans, and *general reserves*, which are reserves set aside for the aggregate performing loan portfolio.

While specific reserves are determined by formula, general reserve percentages vary among banks and are determined by the bank's credit personnel and its third-party loan review consultants based on an analysis of the performing loan portfolio's history of past losses.

- Management is required to provide the breakdown between specific and general reserves to regulatory examiners, but not to the general investing public.

ALL (Beginning of Period) + Provision – Charge-offs + Recoveries = ALL (End of Period)

– ***The most important reserve ratio is the ratio of reserves to NPAs, also known as the reserve coverage ratio.***

- The importance of the reserve coverage ratio lies in the fact that future losses are more likely to come out of loans in the non-performing classification, which should be intuitive. Consequently, banks with reserve coverage ratios of less than 100% are viewed as suspect by many analysts. **Importantly, however, while the reserve coverage ratio is meaningful for bank-to-bank comparisons and is useful for examination of industry-wide trends, one must be careful not to draw hasty conclusions about a bank's reserve adequacy on the basis of this calculation alone.**

It is important first to know the bank's charge-off and loan classification policies, as mentioned earlier. Conservatively run banks that charge off early and classify loans as nonaccrual quickly may be penalized by this ratio. For these companies, the loss content in the nonperforming assets has probably already hit the income statement, and their reserve position is probably more appropriately measured relative to total loans than just NPAs.

Conversely, banks that tend to add to the ALL rather than charge off and are slow to admit loan problems may look better than they deserve from time to time. Again, this is a subjective judgment on the part of the investor that is based on the experience of a long association with the bank's management. Of course, the most desirable situation is a bank with conservative credit policies and high reserve ratios, both as a percentage of loans and as a percentage of NPAs. In these situations, the bank is likely to have built up the equivalent of an earnings annuity in its loan loss reserve.

The importance of the reserve coverage ratio lies in the fact that future losses are more likely to come out of loans in the non-performing classification, which should be intuitive. Consequently, banks with reserve coverage ratios of less than 100% are viewed as suspect by many analysts.

- At a typical community bank with a well-diversified loan portfolio – like our First Second – I'm reasonably comfortable with reserves equal to at least 1.50% of gross loans and 200% of NPAs, all else being equal. I get a bit nervous when reserves are less than 1.25% of gross loans and/or 100% of NPAs, the issues discussed above notwithstanding. Where plain vanilla thrifts are concerned, I like to see reserves equal to at least 1.00% of gross loans and 200% of NPAs.

It is vital, however, to know the composition and aggregate risk profile of the bank's loan portfolio.

- **Along with the ALL, it's also important to closely monitor net charge-offs – that is, charge-offs net of recoveries.** If a community bank has a history of high charge-off levels, which I define as charge-offs routinely equal to more than 0.50% of gross loans, caution is in order.

- There are several other issues to consider when addressing an institution's asset quality, potential for future problem loans and overall credit quality. Among them include the following:

Rapidly growing loan portfolio – It's very difficult to accurately determine the reserve requirements for a rapidly growing loan portfolio (e.g., a portfolio growing faster than 15% per year) because, by its very nature, a large portion of the portfolio (that is, the new portion) has no past experience from which to glean insights about future performance.

In addition, one must determine whether the bank is growing rapidly as a result of superior lending personnel (which is good) or whether its stealing market share from other banks by offering lower-than-market interest rates and/or more lenient lending terms (which is bad).

Loan approval process – Is the loan approval process centralized or decentralized?

Are most loans approved by individual loan officers or by a lending committee? centralized loan approval processes involving a lending committee tend to produce better asset quality than de-centralized processes.

Generally, the more eyeballs that review a particular credit, the better.

Internal lending limits – Banks with conservative credit cultures tend to grant relatively lower lending limits to individual loan officers.

Pay for performance – Pay for performance, in and of itself, is a good thing.

The important issue where a bank is concerned is how performance is being measured. If pay is linked to the profitability of a loan officer's portfolio, then great. If, however, loan officers are merely being compensated based on origination volumes – and assuming that the bank is holding these loans on its balance sheet, as opposed to merely selling them – then it's likely that the

institution will eventually run into problems.

- These mistakes persist (Economic Cycles) because humans tend to extrapolate their experience with recent events far into the future, a tendency known as “extrapolation error” to adherents of behavioral finance. Consequently, businesses, in aggregate, tend to over-expand and over-leverage themselves during expansions and, conversely, tend to operate too conservatively after the inevitable slowdown has taken hold, thus exacerbating both the peaks and troughs of economic cycles.

Chapter 6: Accounting Shenanigans

- The point here is that in order to properly measure comparative profitability one must pay very close attention to the manner in which a bank builds its ALL relative to total loans and nonperforming loans.
- **Aggressive Restructuring Charges** - A bank typically takes a restructuring charge when it acquires another bank (to cover investment banking and legal fees associated with the transaction, as well as severance for laid off employees), exits a line of business (to cover severance and any loss on the sale or disposal of the business), or has a large round of layoffs (to cover severance). Companies that want to improve their reported earnings going forward will overstate the costs associated with restructuring and bleed these excess “phantom” expenses back through the income statement over time.

Admittedly, it is very difficult to detect this form of monkey business. What the investor can do, however, is look at the size of the restructuring charge relative to either the size of the deal or the number of employees being laid off, whichever metric is more appropriate. If the number is unusually large, then perhaps management is borrowing from the present to make the future look better.

- As you can see, a company that uses the Annual Prepayment Model has a deeper cushion than one that uses the Monthly Prepayment Model because the latter model actually assumes a slower prepayment speed and higher cash flows relative to the former. Consequently, use of the Monthly Prepayment Model leads to a higher reported gain on sale than the Annual Prepayment Model. The Annual Prepayment Model is, in fact, a more accurate depiction of the true CPR speed than the Monthly Prepayment Model.

- While some companies use gain on sale models that apply the annual loss assumption to the current monthly declining principal balance, other companies use models that apply the annual loss assumption to the principal balance twelve months prior – called the “Twelve Month Look Back Model.” The justification for using the Twelve Month Look Back Model is that current losses are typically incurred on loans that became delinquent about twelve months prior.

The important point here is that a company that uses the Twelve Month Look Back Model has a bigger built-in margin for error than one that uses the Current Balance Model. For accounting purposes, the Current Balance Model actually assumes lower losses and higher cash flows than the Twelve Month Look Back Model. Consequently, the Current Balance Model leads to a higher reported gain on sale than the Twelve

Month Look Back Model. The Twelve Month Look Back Model is, in fact, a more accurate depiction of true annualized losses.

- I have my own opinions as to what discount rates companies should be using for various types of securitizations. However, as the purpose of this appendix is simply to present explanations and illustrations of various gain on sale concepts, my opinions regarding appropriate discount rates are largely irrelevant. The bottom line where discount rates are concerned should be obvious: the use of a higher discount rate implies more conservatism than a lower discount rate because a higher discount rate results in a lower reported gain on sale.

- When discounting projected cash flows, some companies apply the discount rate to cash flows as they are received by the trust (the "Cash-in" method), while other companies apply the discount rate to cash flows as the company actually expects to receive them, or as these cash flows are released to the company from the trust after over-collateralization requirements have been met (the "Cash-out" method). The former methodology ignores the timing difference between the receipt of cash by the trust and the release of cash to the company. As a result, the Cash-in method will lead to a higher reported gain on sale than the Cash-out method.

- As should be clear, securitizing loans engenders considerable negative cash flow. After all, a big chunk of cash is used to underwrite the loans, but the cash flows the securitizer receives come back over time, often a long period of time. In addition, the initial net cash flows from the securitization often don't flow to the securitizer, but rather into the securitization's trust in order to provide additional collateral for the bondholders.

Therefore, securitization is a *major* negative cash flow event. Securitizers *hope* that their assumptions are correct and that they will ultimately receive the cash flows they've projected, but obviously there's no guarantee. Many financial companies were buried in the latter half of the 1990s because they misunderstood the cash flow economics (and the default characteristics) of their securitizations and ultimately ran out of cash.

Chapter 7: Regulatory Environment

- Occasionally, bank investors also come across *written agreements* between institutions and their regulators. Although sounding less offensive than a C&D (Cease & Desist), a C&D is, in fact, a form of written agreement. In addition, other forms of written agreements often accompany formal actions. Consequently, any mention of written agreements needs to be taken very seriously.

In a nutshell, once a formal action has been initiated against a financial institution, the institution has serious problems. Unless you're a professional, you should avoid investing in companies that are operating under formal actions because such companies are typically very difficult to analyze without considerable experience and expertise.

Exhibit 7D

Major Risk Categories and Risk Weights Regulatory Regulatory

**To be Minimum to be Minimum to be Categorized as Categorized as Categorized as
Regulatory Capital Ratio "Undercapitalized" "Adequately Cap." "Well Capitalized"**

Tier 1 capital to adjusted total assets (Leverage Ratio) < 4.00% 4.00% 5.00%

Tier 1 capital to risk-weighted assets < 4.00%* 4.00%* 6.00%

Total capital to risk-weighted assets < 8.00% 8.00% 10.00%

- *Not applicable for Thrifts*

Source: Federal Reserve Bank & Office of Thrift Supervision

Risk

Asset Category Weight

Cash and cash items 0%
Balances due from Fed 0%
US Treasury securities 0%
US Agency securities (full faith) 0%
Federal Reserve Stock 0%
Unfunded commitments < 1 Year 0%
Unrealized gain/loss on AFS securities 0%
Loans secured by cash ("CD loans") 0%
Intangible assets 0%
Cash items in process of collection 20%
Due from banks 20%
US Agency securities (not full faith) 20%
FHLB stock 20%
Unfunded commitment participated 20%
Fed Funds Sold 20%
Guaranteed portion of SBA & Student loans 20%
Unfunded commitments > 1 Year 50%
First mortgage loans (1-4 Residential) 50%
First mortgage loans (Multifamily) 50%
All other loans 100%
OREO 100%
Common stocks 100%
Mutual funds 100%
Corporate bonds 100%
Letter of credit 100%
Premises and equipment 100%
All other assets 100%

Source: Federal Reserve Bank

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Chapter 7: Bank Acquisitions 101

- Deals that are *Accretive* to an acquirer's EPS are seen as good, deals that are *Dilutive* to an acquirer's EPS are negative.

- As I've presented it above, the acquisition of one bank by another looks pretty simple. Indeed, bank acquisitions aren't particularly complicated at the conceptual level: one bank buys another, operating and deposit costs are rationalized, noninterest income is

grown through cross selling, and unprofitable business lines are eliminated. What could be easier?

Acquisitions fail for three reasons: (1) the acquirer overpays, (2) mistakes are made during due diligence, and/or (3) the integration of the two banks fails.

- Break-even point for a bank branch is typically \$15 Mil. In deposits.

- Security analysts who use fundamental analysis as their primary tool of valuation seek to establish the manner in which underlying, or intrinsic, values are reflected in security prices. Soros' theory of reflexivity, in contrast to fundamental analysis, attempts to explain the opposite – that is, how security prices can influence underlying values. According to Soros' worldview, **reflexivity is present in a sector of the stock market whenever the underlying values of the sector's stocks are being influenced by those stocks' prices**, which is diametrically opposed to the traditional thinking that underlies fundamental analysis.³ By mid-1998, bank stock valuations had been under the influence of such a reflexive process for several years, and the process was beginning to undo itself – as all reflexive processes eventually do.

- **Growth driven primarily by temporary factors such as artificially cheap capital (as in the case of bank stocks between 1996 and 1998) is of necessity more vulnerable to a sharp slowdown or even a crash than internally-generated growth.**

Chapter 9: Valuing Banks

- The process of assigning a value to a share of common stock is at least two parts art for every one part science. This is, of course, due to the significant impact that expectations regarding future profitability and earnings growth have on current stock prices, and the attendant uncertainty surrounding such expectations. (It serves us well to recall the wisdom of Yogi Berra that, “It's hard to make predictions, especially about the future.”)

In my view, the best approach to valuing bank stocks – or any other type of stock for that matter – is to employ multiple valuation techniques that encompass both sound financial theory as well as current market realities, as the latter are often wholly disconnected with the former. Although, hopefully, in most cases the analyst will find that the values derived from both “theory-based” and “reality-based” techniques aren't too far removed from one another.

In my view, the four most relevant approaches to valuing bank stocks are (1) peer group comparisons, (2) dividend discount models, (3) takeout values, and (4) liquidation values.

- To say that Wall Street is fixated on peer group comparisons is an understatement. A bank's valuation relative to its peers is the single most important element in

determining the company's value *in the short term*. The vast majority of research reports that I've come across during my career reach their conclusion regarding valuation with some verbiage resembling the following: "We believe that Bank X should trade roughly in line with its peers, which are trading at 13x EPS, yielding a price target of Y."

The appeal of using this approach is obvious: it's easy. The two main problems, however, with this approach are: (1) it ignores the over- or under-valuation of the bank's peer group as a whole (that is, it assumes market efficiency), and (2) it tends to overemphasize the short-term issue of earnings growth over the longer-term issues of dividend growth and return on capital.

The first step in making a peer group comparison is to find an appropriate peer group for the bank under evaluation. Second, the analyst should compare the bank's core P/E ratio, price-to-tangible book value, or tangible deposit premium (depending on the metric being used in the comparison) with that of its peer group.

Third, the analyst must determine whether or not the bank should trade at a discount or premium to its peer group based on the institution's relative attractiveness in terms of projected earnings growth, return on equity, asset quality, deposit base, quality of management, among many other variables. Finally, the analyst applies the premium or discount to the estimate of the variable in question to come up with a value for the bank's common stock.

- Most investors are unwilling to pay a premium for a bank's "excess equity" – that is, any equity in excess of 6%-7% of assets, which is considered by most investors to be the optimal amount of equity with which most banks should operate.

– **Dividend Discount Model**

Although theoretical in nature, it's important to be able to value a bank stock using a dividend discount model (DDM). At the end of the day, after all, every company's stock price must ultimately be reconciled with the cash flows that its shareholders are expected to receive over the life of the investment discounted at the appropriate risk-adjusted rate.

In order to calculate a bank's value under a two-stage DDM framework, we need (1) a beginning dividend (to discount, of course), (2) a "first-stage" growth rate (years 1-5) of EPS and dividends, (3) a "second-stage" growth rate (years 6 into perpetuity) of EPS and dividends, and (4) a discount rate.

In my view, the best assumption regarding a perpetual growth rate for a bank's dividends is 6%. This 6% is based on the assumption of a long-term, full-cycle ROE of 12% and a 50% payout ratio. (Recall that $Growth = ROE \cdot [1 - Payout Ratio]$.)

In order to come up with a reasonable rate at which to discount a bank's dividends, one must estimate (1) future inflation, (2) the real rate of return that investors will

require on long-term Treasuries, and (3) an estimated equity risk premium (that is, the difference between the return on stocks and the return on risk-free Treasuries).

The real rate of return realized on 10-year Treasuries has averaged about 3% over the long term. Since 10-Year Treasury Inflation-Protected Securities (“TIPS”) were introduced in 1997, the real rate offered on such securities has been as high as almost 4% and as low as roughly 2%. Thus, recent experience also supports a 3% real return assumption on 10-year Treasuries.

Now that we have an expected return on the stock market as a whole (6% risk-free rate + 3.5% equity risk premium = 9.5%), we can plug the variables into the Capital Asset Pricing Model (*CAPM*), which states that: Required Return = Risk-free Rate + Beta · (Expected Return on Market – Risk-free Rate).

Assuming a beta of 1.0 for banks over the long term yields a discount rate of 9.5% (6.0% + 1.0 · [9.5% - 6.0%]), which for the sake of convenience I’ll round up to the “professorial” 10%.

(The problems with CAPM, which include the instability of betas and risk premiums over time, are far too numerous to delve into here. Having said that, it’s the best tool we’ve got for estimating discount rates, so I’ve decided to use it herein despite its myriad shortcomings.)

Takeout Value (Private Market Value)

- The most popular method of determining a suitable range of potential acquisition values for a particular bank is to look at the multiple of earnings acquiring institutions have recently paid for companies comparable to the bank under evaluation. Other popular metrics analyzed in evaluating comparable sales include price-to-tangible book value as well as the franchise premium-to-core deposits paid in the transactions.

In using the comparable sales technique, one should look at the average multiples paid for comparable institutions and then adjust the estimated takeout value for the degree to which the particular bank under analysis differs from the average comparable company in terms of (1) overall profitability, (2) the scarcity value of its franchise, (3) the degree to which its expense base could be reduced in an acquisition, (4) its capital level, and (5) asset quality. Furthermore, the analyst needs to compare current market conditions with those that existed when the comparable sales took place, and adjust valuations accordingly.

Example

Let’s value Bank X (from Exhibit 9A) using the comparable sales technique. In Exhibit 9F, I’ve provided a list of companies comparable to Bank X – that is, commercial banks with assets between \$1 Billion and \$5 Billion located in Bank X’s geographic region – that were acquired during 2001 and 2002. One must be very careful when choosing comparable acquisitions for valuation purposes. The “comps” (to use investment banking parlance) should be (1) relatively recent sales (within two years), (2) of similar asset size, (3) from the same geographic

region, and (4) of the same industry type as the company in question. That is, don't mix thrifts in with banks and vice versa.

- The fact that a transaction is accretive to an acquirer's per share earnings does not necessarily mean that the transaction is good for the acquirer from the standpoint of ROI, and vice versa. Ultimately, expected cash flows discounted back to the present at an appropriate risk-adjusted rate should determine whether or not an acquisition is worthwhile. Nevertheless, both Wall Street and most of the acquirers it advises are fixated on EPS accretion, so it would be foolish for the analyst to ignore this valuation methodology.

- The discount applied to the average takeout value will typically be roughly 20%, which implies that a 25% acquisition premium should remain in the average bank stock for trading purposes. (Here's the math: a 20% discount to 100% is 80%. And $20\% \div 80\% = 25\%$.)

However, this is largely dependent on market conditions. There are periods during which many bank stocks trade at a significant discount to their takeout values and periods when the same stocks trade at very small discounts to their acquisition values.

Liquidation Values

Starting at the top of LB's Balance Sheet, the market values of Cash and Due from Banks and Fed Funds Sold should equal their reported book values. In LB's case, I've assumed that rates have declined such that the investment securities portfolio has a market value that's 3% greater than its book value. Assuming that they are priced properly – that is, that their interest rates properly reflect market pricing and their inherent risk – LB's Performing Loans should also be worth some premium because the buyer will not have to pay the costs associated with originating the loans. Performing Loans might get a “haircut,” or a discount to their reported book value, if they are priced below average market pricing and/or if their pricing doesn't appropriately reflect their inherent risk.

For example, if average market pricing for typical multi-family loans is 8% and a bank prices similar loans at 6.5% in an effort to grow its loan portfolio quickly (which is not unusual, by the way), these loans will sell at a discount in liquidation or in the secondary market to reflect this improper pricing. In LB's case, I've assumed that the Performing Loan portfolio is priced properly. Consequently, the premium market valuation merely reflects the buyer's foregone origination costs.

I've assumed that LB's Nonperforming Loan portfolio gets a 60% haircut in liquidation.

- For liquidation purposes, the reported book values of LB's Loan Loss Reserve and

Unearned Loan Fees are equal to their market values. In reality, these amounts will be “attached” to specific loans and reflected in the sale value of these loans. But, when looking at the liquidation in aggregate, the analyst should simply carry the Loan Loss Reserve and Unearned Loan Fees at book value.

I’ve given Real Estate Owned a 20% haircut in this example (recall that because REO theoretically already has appropriate reserves put up against it, the reported value of REO should be its market value), and I’ve applied a 50% discount to LB’s Securitization Residuals (see Appendix IV). I’ve written down Goodwill to zero because Goodwill has no value in a liquidation. Finally, I’ve applied a 75% discount to Other Assets to reflect the fact that these assets – equipment, furniture, etc. – in the aggregate rarely get anything close to book value in a liquidation.

In short- to medium-term trading situations (i.e., less than three years), use of peer group comparisons will often yield the best result. In the short-term, after all, banks will trade largely as a group, with the differences between individual banks’ performance largely a function of relative valuation and fundamentals.

For obvious reasons, the DDM is only useful for long-term investing (i.e., greater than three years). A DDM approach is simply applying an “owner” mentality to the company in question. Over short and medium time horizons, a bank’s stock value will trade well above and below the value derived from a DDM. In the long term, however, the DDM, if properly and carefully applied, will yield an intrinsic value to which the stock’s value should revert over time.

Regardless of whether you’re investing for the short or long term, it’s always important to get a good idea regarding the takeout value of the stock in question. Having said that, incorporating a bank’s takeout value into the investment equation should be done with extreme care. There are many banks that have been rumored as near-term sellers over the years that remain independent today. Consequently, unless you have *very* good reasons to believe that a particular bank is going to get acquired over a particular period of time, you shouldn’t give the takeout value too much weight in the short term.

The liquidation value technique is typically only used in the case of troubled institutions. The liquidation value is, in theory, the worst case scenario for the company’s valuation. It’s important to remember, however, that bad things tend to happen when regulators start liquidating a bank’s assets and liabilities. Regulators tend to be sloppy liquidators, so one must be very careful to properly mark the bank’s assets and liabilities to worst-case scenario market values under such circumstances. Typically, if it’s anticipated that the bank will have equity remaining after liquidation (i.e., the bank isn’t a total basket case), the regulators will allow the bank’s management and investment bankers to control the liquidation process. When the regulators are called in, on the other hand, and “take the keys” from the bank’s management, it’s rare that any equity will remain for common shareholders after the liquidation process is completed.

- Peer comparison valuation (Short-term investment)

- Private Market valuation (Short-Mid-term investment)
- Discounted Cash Flow Analysis (Long-term investment)
- Liquidation valuation (Worst case scenario)

Also, when thinking about the issue of bank EPS multiples relative to the S&P 500 it is important to remember that banks are considerably more levered (with assets typically equal to 12.5x shareholders' equity) than the average industrial company. Consequently, when things go wrong at a bank, the company's financial situation often deteriorates at a much faster pace than in the case of non-banks.

These two exhibits engender some interesting observations. First, notice in the case of both banks and thrifts that there is a high positive correlation between ROAA and Price/Book and Price/Tangible Book multiples. In other words, the higher a company's ROAA, the higher the company's trading multiple will be in terms of Price/Book and Price/Tangible Book, all else being equal.

Conversely, notice that there appears to be a *negative* correlation between ROAA and P/E multiples.

- As discussed in Chapter 1, most of the additional profitability that accrues to the average bank is the result primarily of lower funding costs on the deposit side of the balance sheet and secondarily to higher yielding loans on the asset side of the balance sheet.

Finally, as one would expect, there is a positive correlation between high NIM/low efficiency ratio institutions and high ROAAs.

Conclusion

In my view, if a bank is a decent earner – that is, it earns more than 1% on assets on a fully-taxed basis – the company should be valued based on its cash earnings (and/or dividends).

The logic behind this position is that a healthy company (bank or otherwise) that generates solid net income (re: cash flow) should be valued by estimating the present value of projected future cash flows. For banks that fit this description, book value is largely (but not totally) irrelevant as long as the institution has enough regulatory capital to keep growing as anticipated. In these instances, earnings and/or dividends are all that really matter. One must, however, take note of the leverage a bank applies in order to generate such earnings and adjust the valuation to reflect any incremental risk.

If the bank is not expected to be reasonably profitable anytime in the near future, then the company should be valued based on its tangible book value. If a bank doesn't have a solid stream of earnings to discount back to the present, after all, then all it has to reflect its value are its tangible shareholders' equity and deposit base.

In these instances, I prefer to use a simple Franchise Premium-to-Core Deposits calculation because this approach gives credit not only to the institution's tangible book value but also its deposit base. There are some deep value investors who invest solely with book value in mind.

Typically, these investors intellectually understand the argument for using earnings based valuation techniques, but choose to invest with the mindset that, "Problems could surface at any time and earnings could decline substantially – book value has a lot less downside volatility." This group falls firmly into the "you make your money when you buy the stock" camp.

Chapter 10: Common Investment Strategies

- *Value investing* merely refers to an investment strategy that concentrates investments in stocks that are trading at low multiples of book value and/or earnings. Over long periods of time and in most stock markets and sectors, value investment strategies have provided greater returns than growth investment strategies.

The greater returns historically generated by value investing are the result of investors mistakenly extrapolating current market and profitability trends into the future. This extrapolation leads investors to favor popular stocks and avoid less popular companies, regardless of valuation. The concept of *mean reversion*, however, suggests that companies generating above-average returns on capital attract competition that ultimately leads to lower levels of profitability. Conversely, capital tends to leave depressed areas, allowing profitability to revert back to normal levels for those companies that remain. The difference between a company's price based on an extrapolation of current trends and a more likely reversion to mean levels creates the value investment opportunity.

Mean reversion also plays itself out on the managerial front. Often, the managements of companies that have been run poorly for a long period of time eventually come under pressure from shareholders seeking higher investment returns. In many of these cases, the under performing management team is either replaced by better management or the company is sold. In either case, shareholders typically benefit in the form of a higher stock price.

Put simply, value investors in the banking sector buy bank stocks with low price/book and low price/earnings ratios on the assumption that either (1) financial performance will improve at some point (perhaps with a new management team), and/or (2) pressure will be placed on the company to sell itself. I know many investors that have made a lot of money investing in banks based on these premises.

Value investors must be careful to avoid two primary pitfalls. First, investors must avoid *value traps*. Value traps are situations in which a stock appears to be cheap relative to its equity, earnings or assets when, in reality, the stock has farther to fall or there is no catalyst to improve the stock's valuation.

Value traps typically arise in situations where a company has problems that management is either unable to address or unwilling to fix.

Second, investors need to have a keen understanding of a bank management's abilities and intentions. That is, investors should avoid situations in which management is either

incompetent or unwilling to operate the bank in a shareholder-friendly manner. One unfortunate reality of bank stock investing is that a lot of community bank executives are not particularly adept managers and don't give a hoot about shareholders. Sometimes, no matter how cheap a bank stock appears, incompetent and/or unfriendly management teams will make you wish you didn't own it. The exceptions to this rule are situations in which the shareholder.

Relative Value

Hedge funds often use a relative value strategy called *relative value arbitrage* (or, *paired trades*). Using the example above, a hedge fund employing a relative value arbitrage strategy might go long Bank 2's stock and short Bank 1's stock. Relative value arbitrage, in other words, involves buying a relatively cheap stock while simultaneously shorting a relatively expensive stock. The idea behind paired trades is that the investor will make money regardless of which way the market moves in aggregate, as long as the valuation gap between the two companies closes to some extent. When executing this strategy, however, it's important that the two companies be somewhat similar. Otherwise, the trade isn't "paired" properly – that is, it's improperly hedged.

Acquisition Targets

There are more than a few bank stock investors that concentrate their efforts primarily on likely acquisition targets. As you'll recall from Chapter 8, there are scores of acquisitions in the banking world every year and a proportional number of these acquisitions take place in the public markets. Consequently, even during a slow acquisition year there are enough bank acquisitions to warrant a strategy concentrating on takeover candidates.

The advantage to owning a bank that gets acquired is obvious: acquisitions almost always take place at a premium to the pre-announcement market price. The typical market premium is roughly 20%-30%. (Those acquisitions that take place at a discount to the pre-announcement market price are known as *take-unders*.)

Nevertheless, most experienced bank stock investors have a keen eye for acquisition targets. The entry point (from a price standpoint), however, is critical to success using this strategy.

Risk Arbitrage

Risk arbitrage is an investment strategy that involves purchasing the stock of a company that has announced it's being acquired and simultaneously shorting the stock of the acquirer (assuming that stock will be exchanged in the transaction). If the transaction is an all-cash deal, then merely buying the stock of the company being acquired, without any corresponding short position in the acquirer's stock, would constitute risk arbitrage.

Success at risk arbitrage is dependent largely upon the investor's knowledge of the parties involved in the deal and the ability to use such knowledge to determine the probability of the deal's successful completion. Successful risk arbitrageurs in the banking sector tend to be knowledgeable regarding the mindset and personalities of the managements involved, legal issues, regulatory issues and potential otherwise unforeseen

stumbling blocks. Put simply, risk arbitrage is not for the inexperienced or feint of heart.

Micro-Caps

The biggest attraction to microcap bank investing is that most of these companies are under-followed by the professional analyst community and therefore often represent compelling values compared to their larger capitalization brethren.

Micro-caps are under-followed because they are not particularly profitable customers of the brokerage firms that pay analysts to write research on companies. The vast majority of Wall Street firms are focused on companies with larger market caps because these companies represent greater deal potential (more and bigger deals equate to more and bigger fees) and larger trading volumes (more trading leads to more commissions). In addition, mergers over the last decade have eliminated a number of independent regional brokerage firms that used to support small-cap stocks. As a consequence, most brokerages make markets in and write research on only the larger, more liquid stocks in order to generate enough trading (i.e., commission) volume and investment banking revenue to justify their coverage.

Thrift Conversions

Joseph A. Colantuoni, in *Mutual-to-Stock Conversions: Problems with the Pricing of Initial Public Offerings*, explained the price appreciation phenomenon in mutual-to-stock conversions as follows (pardon a bit of redundancy here):

Mutual-form thrifts do not have explicit owners. They do, however, have net worth, or equity, in the form of retained earnings. Management has created this equity by prudently investing depositor funds. When mutual-form thrifts are converted to stock form, eligible depositors and managers can purchase shares of the thrift at the subscription price before public trading begins and a market price is established. The proceeds collected during the subscription period are not transferred to the mutual's managers or depositors. Instead, these proceeds are retained by the thrift and added to its total net worth. Those who purchased the thrift's stock during the subscription period now own its preexisting net worth plus the total proceeds raised in the public offering. The equity pie has grown in size, and each of the new shareholders can enjoy a larger piece of pie for the cost of a smaller one because the original (pre-conversion) equity remains in the thrift. The sudden and dramatic rise in the market price of stock above the offering price initially set by the underwriter is a reflection of the original equity.

If an institution has a positive amount of preexisting net worth and can invest its IPO proceeds in profitable projects, attempts to eliminate rapid price appreciation are impossible. Two simple examples can explain this situation. Suppose a mutual-form thrift with \$10 million in net worth converts to stock form. In one example, if the institution's initial stock offering is sold for \$1 million, initial shareholders should expect a 1,000 percent increase in the value of their shares. As a group, they pay \$1 million for \$11 million in net worth – in initial retained earnings plus

proceeds collected during the stock subscription period. In a second example, if the institution could somehow be sold for an unrealistic \$1 billion, initial shareholders would still realize a 1 percent initial return. As absurd as these examples seem, they illustrate a simple point:

Regardless of the final IPO price, price appreciation will occur as the market realizes the value of an institution's undistributed (preexisting) net worth.

Initial purchasers who were fortunate enough to buy shares of the 143 mutual thrifts that converted to stock ownership in 1995, 1996, 1997, and the first half of 1998 saw their share prices rise by an average of approximately 24% on the very first day of trading. Even more dramatic has been the price appreciation on the 13 conversions that took place in the first four months of 1998, producing an unprecedented average oneday return of 59%. Moreover, the pops appear to be more prominent the larger the institution is.

Interest Rates

Because changes in interest rates have a significant impact on bank profitability and valuations, some investors use bank stocks as speculative vehicles to profit from a particular interest rate outlook.

According to brokerage firm Keefe, Bruyette & Woods (KBW), the firm's proprietary KBW Bank Index (KBI) has posted negative returns in 9 out of 15 periods of rising interest rates (that is, Fed tightenings), or 60% of the time, since 1965. In addition, the KBI has underperformed the S&P 500 in 10 of the 15 periods.

Rising interest rates can negatively impact bank earnings in several ways. First, rising rates hurt the NIMs of those institutions that are liability sensitive. Second, rising rates often engender a slowing economy, leading to lower loan growth for banks and thus lower projected earnings. Finally, if the economy slows too much, banks' credit costs increase as charge-offs mount. Thus, there is good reason to be cautious regarding bank earnings during periods of rising interest rates.

Patience

Investing in community bank stocks often requires a great deal of patience, often more than is necessary in general stock market investing because of the marketability issues discussed herein. Psychological and other factors can create market distortions that last a very long time. You can be right in the long run, but dead in the short run.

My point: Be very careful about getting overextended – long or short – based on a valuation argument alone. A catalyst of some sort is often required to get a bank's stock price moving toward fair value. It serves us all to recall Lord Keynes' brilliant observation that, "Markets can remain irrational longer than you can remain solvent."⁵ Or as Jeremy Grantham put it more recently, "Bets based on a 'value' approach to investing eventually winning will usually treat you well, but the timing of these bets will usually try to kill you."

Understand How The Market Works

Investing is a game of strategy. One can't win a game of strategy if there's a misunderstanding about how the game is played in the first place. With a flawed understanding of a game that requires skill, a player unwittingly relies on luck to win. And luck is not an investor's best friend because it begets unwarranted confidence that often leads to larger mistakes down the road.

According to investor Arne Alsin, the basic tenets of the game known as the stock market are as follows:

“All stocks are mis-priced, some by a little, some by a lot. It is critical that investors understand that stock quotes do not reflect reality. In other words, stock values do not equal business values. At best, a company's stock quote will approximate the underlying business value. Frequently, though, a company's stock quote can diverge 40% to 50% or more from its business value.”

I could point out many bank stocks with price moves of 50% or more in either direction over two-year periods. The business value of these banks had not changed that much over the two years. Clearly, the change in these banks' stock values vastly exceeded the change in the value of the underlying businesses.

Which leads me to the following observation: Great investors understand that the purpose of the stock market is to provide liquidity, not to accurately assess the value of businesses. The central preoccupation of successful investors (as opposed to speculators) is to identify and capture the spread when a company's stock value is materially below its business value.

Shorting Bank Stocks

When shorting bank stocks, be very careful of shorting stocks simply because they look “expensive.” First of all, as noted above, stocks can remain irrationally priced for quite a long time. Second, and more importantly, banks with rich stock prices often use their currencies to acquire other banks, thus rendering their shares, in effect, less rich.

“Beating Estimates”

Companies – banks or otherwise – that consistently “beat” by pennies the estimate put forth by the sell-side analysts that cover them should be viewed with some skepticism. Businesses, including banks, are far too complicated, with too many moving parts, to be able to hit a certain number quarter after quarter without, essentially, making the number up.

Bill Fleckenstein emphasizes the point as follows:

“Could any of you project for me what your checkbook balance will be at the end of a month? Probably most of you don't have that many moving parts and know with some degree of certainty

what you'll spend. Yet, you can't predict to the dollar what your checkbook will have in it, and companies can't predict what they're going to earn that precisely, either.

The fact that they're doing it means they're basically playing games."

Chapter 11: Case Studies

– **In life as in investing, you learn very little from a particular situation when you're right, but you can learn a lot when you're wrong.**

– One way for a bank to commit fraud is:

“The bank's records concealed the true nature of many multimillion-dollar loans, which were often originated in the names of shell companies to pay off or finance the purchase of other delinquent or poorly underwritten loans and thereby disguise the true financial conditions of the bank;”

– As mentioned previously, it's perfectly normal – and expected – for a de novo bank to lose money for anywhere from 18 – 30 months.

Minimum requirements for asset quality and reserve coverage:

– 1.25% > Ratio of non-performing loans to total loans.

– 125% > Ratio of loan-loss reserves to non-performing loans.

– 300% > Ratio of loan loss reserves to last 12 month's charge offs.

– 1.50% of performing loans + 25% non-performing loans + 10% OREO + All loans 90 days past due = Reserve Target Level (compare to actual reserve level)

– Non-interest expense as a % of Total Assets (The lower the better)

Profitability Ratios

– ROAA (Return On Average Assets)

– ROAE (Return On Average Equity)

– Return on Tangible Equity

– NIM (Net Interest Margin)

– Yield on Average Total Loans

– Yield on Average Total Earning Assets

– Overall Cost of Funds

– Non-Interest Income as a % of Avg. Earning Assets

– Non-Interest Expense as a % of Avg. Earning Assets

– Efficiency Ratio

Asset Quality Ratios

- NPA (Non-Performing Assets & 90+ Days Past Due as a % of Assets
- Loan Loss Reserves / NPA's & 90+ Days Past Due
- Loan Loss Reserves as a % of Loans
- Net Charge-Offs as a % of Loans

Capital & Balance Sheet Ratios

- Equity/Assets
- Tangible Equity/Tangible Assets
- Tier 1 Capital/Assets
- Net Loans/Assets
- Net Loans/Deposits

Other Key Ratios

- Asset Sensitive Bank (A bank whose assets reprice faster than its liabilities) Preferable to liability sensitive banks.
- Liability Sensitive Bank (A bank whose liabilities reprice faster than its assets)
- Internal Capital Generation Rate: Net income before extraordinary items less all dividends as a percentage of common equity. This ratio measures a bank's ability to increase its capital base through retained earnings.
- Liquidity Ratio: Cash and equivalents held by a bank as a percentage of the bank's total deposits.
- Loan Loss Reserve: $\text{Loan Loss Reserve (Beginning of Period)} + \text{Provision} - \text{Charge-offs} + \text{Recoveries} = \text{Loan Loss Reserve (End of Period)}$
- Overhead Ratio: Non-interest expense less non-interest revenue as a percentage of average earning assets. This ratio represents the NIM needed to break even before the loan loss provision.