THE MEANING OF DIVERSIFICATION

by Steve Brown

Bankers face many choices in their day-to-day activities which is one reason we all own 10 identical shirts and 5 pairs of identical slacks or skirts (note recent picture). At least what to wear in the morning won't cause us a brain overload.

Another choice bankers make is how to diversify their loan portfolio. Should a bank attempt to diversify or should it concentrate lending to those industries and within those geographic regions in which it has special expertise? The answer will surprise many readers.

Modern Portfolio Theory teaches us that if any two assets are less than perfectly and positively correlated, then the addition of the second asset to the first can diminish the risk for a specific level of return (or increase the expected return for a given level of risk). But only by measuring covariance between every two loans in a portfolio can a banker maximize the risk-adjusted return. Most bankers do not have the tools to measure the covariance of every two loans in their portfolio, and, in fact, most do not measure the historical covariance of any loans in their portfolio.

The impact of diversification stems primarily from geography and loan class. Many banks subscribe to an internal hold "preference" of 1/20th of capital for any single loan in an effort to diversify, "keep their eggs in many buckets" or avoid severe single losses.

However, there are two primary offsets to the benefits of diversification: 1) When each additional loan is added to the portfolio, that loan's covariance with each other loan must be low for any benefit to be realized. With only one loan in the portfolio, it is easy to find a second loan that does not behave like the first. But with 10 loans in the portfolio, it is much harder to find an 11th loan that does not behave like any of the first 10; and 2) Banks undergo an effort in screening and monitoring borrowers. Building an expertise in an industry or geographic region reduces the risk of originated loans. This specialization, however, is diminished with portfolio diversification.

The empirical evidence is clear. Assuming 10Y maturity loans, DSCR of 1.20x and LTV of 75%, the full benefits of geographic diversification can be obtained with 15 loans, each in a different metropolitan area in the country. Any loan added beyond the first 15 has not historically led to any benefits from diversification.

The diversification ratio (the ratio of loss for a diversified portfolio over the losses for the same portfolio given no diversification) reaches approximately 0.58 at 10 loans and around 0.55 at 15 loans. The preceding sentence assumes that the loans are not optimized (the metropolitan areas are chosen randomly).

The evidence on loan class diversification is equally startling. Specialized banks tend to have a slightly higher return, measured as profits over equity and total assets, respectively, than more diversified banks. The larger the bank, the more important diversification becomes. Meanwhile, the benefits of specialization outweigh the benefits of diversification for smaller banks.

There is one area where community banks are clearly overly concentrated, and that is real estate. Owner occupied properties (where the owner's business is not correlated to real estate), AG production and C&I lending are examples of loan classes offering diversification benefits to community banks.

If your bank has embarked on an effort to diversify its loan portfolio, just ask yourself how likely that ARCO station on Broadway and Main will not default, when the Valero station 10 miles away at 3rd and Grant does. Is the bank just making another loan to the same set of underlying credit factors under a different name?

BANK NEWS

Ban Extended

The SEC extended its emergency order limiting short selling on 19 financial stocks for another 10 days, as it works to finalize new rules that would extend the requirement to all stocks.

New Housing Law

President Bush signed into law the most far-reaching housing bill in decades. The new law does a number of things including: providing a permanent increase in conforming loan limits of $625k; allows the FHA to insure up to $300B in new mortgages for at-risk borrowers; provides a tax refund of $7,500 for first time home buyers; increases the down payment requirement for FHA loans to 3.5%; creates a more stringent regulator for FNMA and FHLMC; provides $4B in grants to states to buy foreclosed properties; and creates an affordable housing trust fund.

More Liquidity

The FRB has extended its emergency lending programs for Wall Street firms through 1/1/2009 in an ongoing effort to calm jittery markets. The FRB also added a new program that allows firms to bid on cash loans that last for 84 days, up from the 28 day loans currently available.