Market Value of Portfolio Equity in Down-Rate Scenarios in this Low-Rate Environment

Today we are going to talk about some of the patterns of Market Value of Portfolio Equity (MVE) that we see in some banks in low interest rate scenarios such as what the market is experiencing at this point in time. The current conditions have come about mainly due to the corona virus, the lowering of Fed Funds to zero in response to this crisis and the bond market rally that followed due to the Fed's move and flight-to-quality in the US bond market.

The pattern that we usually see in banks in the down rate scenarios are decreases in the banks MVE. This is caused by the duration mismatch between a bank's assets and liabilities.

The typical asset side of the balance sheet for a community bank will consist of loans of 2-4 years in duration and investment securities of 1-3 years in durations.

A typical liability structure for a community bank will have a large percentage of its deposits in non-maturing deposits such as checking, NOW, savings and money market deposit accounts. It is these non-maturing deposits that cause the mismatch. The remainder of the liabilities are generally made up of shorter term retail and wholesale CDs, FHLB Advances, REPO's and brokered CDs.

To determine a duration that is accurate for non-maturing deposits, a deposit study is performed to determine how long deposit accounts have been retained by the bank. Typically, we find that durations for non-maturing deposits using the retention method to calculate deposit durations result in durations that are much higher than the asset side and can range anywhere from 5 to 15 years. This results in the bank having a decreasing MVE profile as rates go down.

What happens though, as rates continue to go down, is that rates for the liabilities are floored at zero, and the wholesale funding curve (liability market rates) used to discount the liabilities is also floored at zero, which halts the continued MVE loss on liabilities as rates go down. With rates where they are now, between 0% and 2%, a move down 100 or 200 basis points will start to see these effects.

On the asset side of the balance sheet, keep in mind that average rates on loan portfolios are still in the 4.50% to 5.00% range and the discount rates used for this asset class are what the bank is currently putting loans on the books for. Because of this, banks can still see gains on the asset side for MVE down 300 and even 400 basis points.

For modeling purposes, loan maturities and modeled prepayments are reinvested in the same type of loan at the current market rate for that loan. As rates decrease, some clients have made the decision to model a floor rate for new loans, usually around 3%, so that loan income even in extreme low-rate scenarios still covers their overhead. This will also have a positive effect on modeled loan values as rates go down.

The effect of liability market values leveling out as rates go down due to rates at or near zero while assets continue to pick up in value as rates fall has the effect of leveling out the decrease in a bank's MVE as rates fall and in some cases, can drive the MVE to actually rise back up in lower interest rate scenarios.