

BLAST FROM THE PAST-CIRCA EARLY 2001

by [Steve Brown](#)

We are having our annual banking conference this Monday, Tuesday and Wednesday. As such, the article in this section of the publication revisits an educational piece that we ran a few years ago. We will return again on Thursday and Friday of this week with fresh material, but in the meantime, please enjoy this blast from the past as you enjoy your morning coffee.

With college basketball's March Madness nearly upon us, we decided to go back to school for a quick lesson on duration. Duration is the weighted average time to maturity and the price sensitivity of a bond. The weighted average time to maturity of a bond's discounted cash flows is known as Macaulay's Duration.

The basic principle is that two different securities with different maturities and cash flows could have the same price sensitivity for a given a change in rates. If the weighted average time to maturity of the discounted cash flows are the same, their price sensitivities will also be the same.

How is this applicable? Take a 5-year coupon bond that is matched against a 4-year CD that pays interest at maturity. If their Macaulay durations are matched and rates change by a small amount, the value of the liability and the asset will change by the same amount. However, the more rates change, the less accurate it becomes, (i.e. convexity). Furthermore, if 5-year rates change and 7-year rates do not, we encounter the dreaded "non-parallel yield curve shift".

Finally, what if nothing else changes, will this relationship still be the same a month from now? The answer is no; we call this phenomenon duration decay.

The price sensitivity of a bond is correctly referred to as a form of duration as well. This is the measurement that's referred to as modified duration, which gives an approximation of the amount of price changes.

Therefore, if rates rise or fall by 100 basis points, a 5-year coupon bond with a modified duration of 4.0 will fall or rise about 4%. However, the bond will increase in price more for a decrease in rates, than it will lose in price for an increase in rates, (i.e., positive convexity).

While not to get too bogged down in the details, the concept of duration should be understood, calculated or estimated when making any investment.

Whether a banker is looking at securities, loans, CDs or FHLB advances; calculating duration is the first step towards eliminating interest rate risk.

BANK NEWS

Credit

The latest trouble spot on the horizon, according to a WSJ article out this morning, is in home equity. The article indicated falling home values may not leave banks with very much room to collect on outstanding debt from borrowers. The story indicated 1Q earnings for JPMorgan, Wells and other large banks could be impacted.

Liquidity

The Fed prevented a potential seizing of the credit markets by introducing an innovative collateral swap structure called the Term Securities Lending Facility ("TSLF"). Given the near-insolvency in MBS and other sectors, the Fed will allow a 28-day (but firms can roll it) trade of those beleaguered securities with Treasuries for the 20 Primary Dealers up to \$200B. This frees up inventory at broker-dealers, thereby injecting liquidity into the system (and hence customers and the GSEs), without flooding the banking system with cash.

Muni Insurance

The Chair of the Financial Services Committee, U.S. Rep Barney Frank (D), lambasted the inconsistency of the rating agencies calling the difference between muni ratings and corporate ratings "ridiculous." He went on to say that every corporate would be "AAA" if they used the muni scale.

Wamu

Rumors swirl about a potential large capital infusion to Washington Mutual by either Buffet or Goldman.

Branch Sales

BankAtlantic (\$6.1B, FL) will sell all 5 branches in the Orlando, FL, market to Carolina First (\$13.8B, SC) that will fold it into its Mercantile Bank division out of Tampa. The sale price was undisclosed.

OTS

The regulator said it will develop a plan to refinance mortgages with negative equity. Under the plan a "negative equity certificate" would be issued for the difference between the appraised value and the loan. The certificate will be held by the investor/lender until the house is sold.

Ugly Housing

Recently, Lennar sold 11,000 properties (condominiums, land, homes and housing developments) in 8 states for 40 cents on the dollar. The properties had been appraised just 2 months earlier for 60% more. Meanwhile, a large PA homebuilder sold 1,400 lots in December in FL, IL and AZ at 37% of book value.

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