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Loop Analytical Services

Municipal Bond Volume Forecast for 2010

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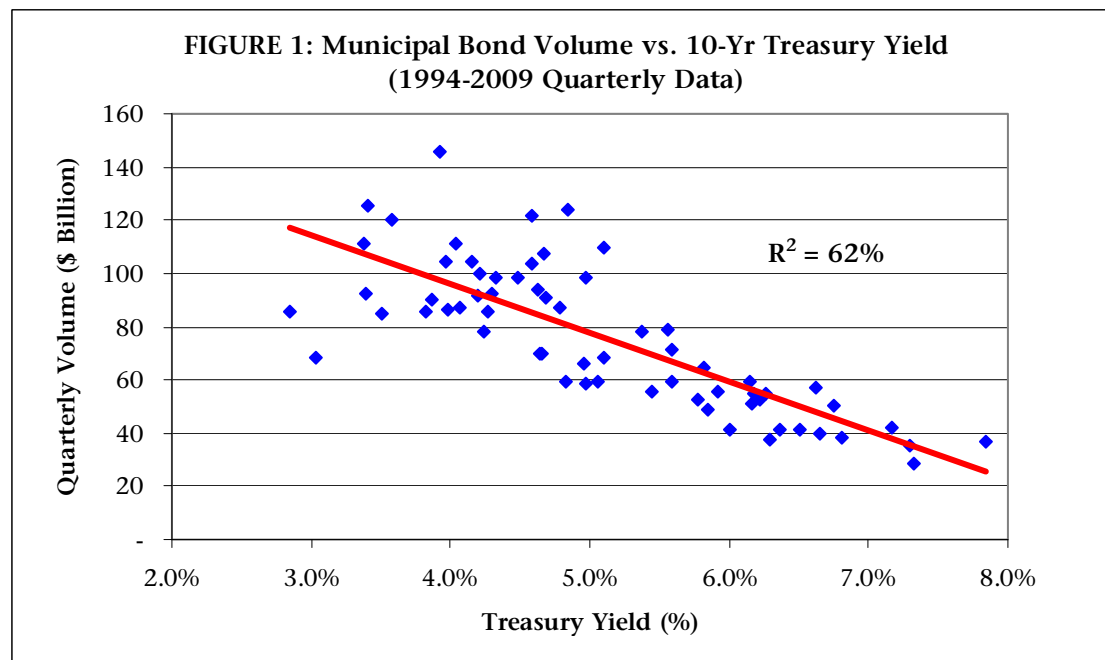
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We forecast approximately \$435 billion of new bond issues in 2010. This amount is higher than the expected volume for 2009 of about \$415 billion.

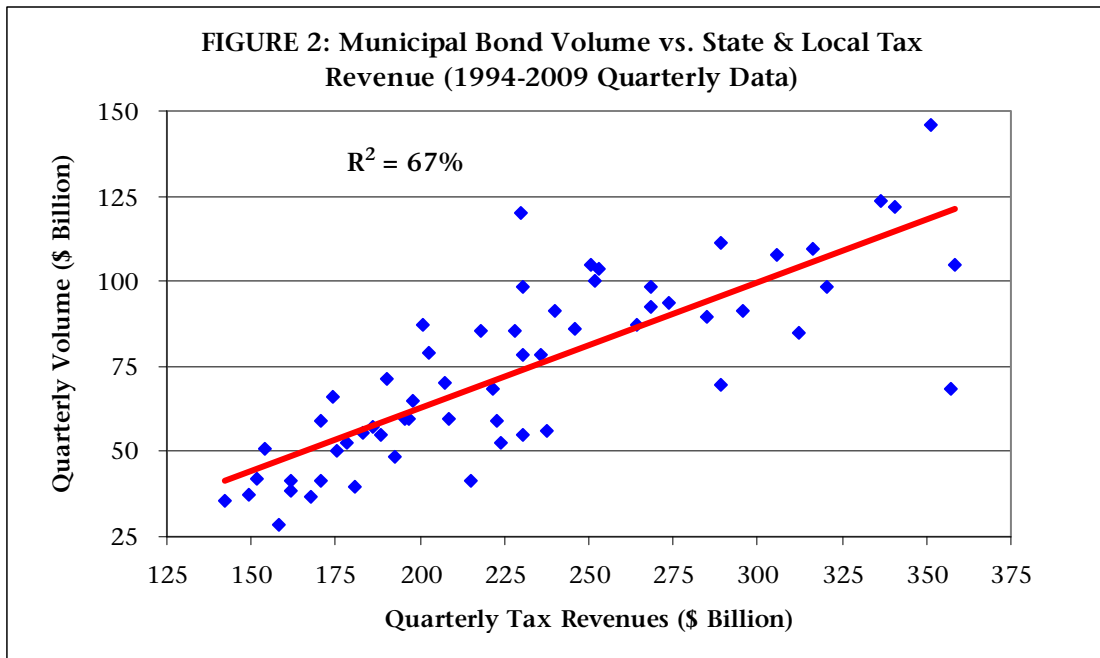
Our forecasting model is based on regression analysis. We ran single-variable and multi-variable regressions using various combinations of factors to develop the optimal model. The factors that were analyzed include: Treasury and municipal interest rates, slope of the Treasury and municipal yield curves, yield ratios, state and local government revenues, historical volumes, nominal GDP growth, job growth, refundings, bond elections, etc. Our sample consisted of quarterly data from January 1994 through December 2009.



Interest rates are an important predictor of municipal bond volumes. Approximately 62% of the change in municipal volume on a period-over-period basis can be statistically attributed to changes in interest rates (Figure 1). Low interest rates have contributed to high new issue volumes in the last 5 years. We used the 10-year Treasury yield as a proxy for interest rates. Using MMD yields for select maturities or average MMD yields would have produced similar results.



Municipal volume also depends on economic growth. The proxies for economic growth such as quarterly changes in nominal GDP, industrial production and non-farm payrolls are very volatile metrics that are poorly correlated with bond volumes. To avoid that problem we used a more stable metric, total state and local government tax revenues, as a proxy for economic growth. Total tax receipts are positively correlated with new issue volumes (Figure 2). The R^2 statistic, which measures “the goodness of fit”, was 67% for this regression.



The slope of the yield curve is also positively correlated with new issue volumes. We used the spread between on-the-run 30-year and 2-year Treasury yields as a proxy for the slope of the yield curve in our analysis.

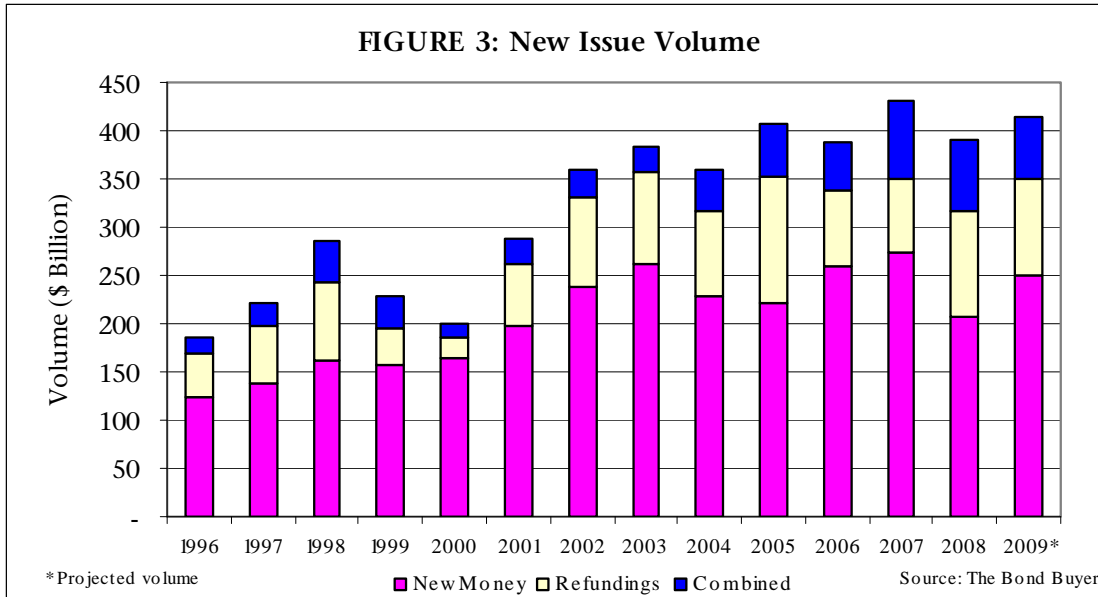
In addition to these 3 factors, we have also used the 5-Year MMD — Treasury ratio in our regression analysis. This ratio reflects the efficiency of funding the escrow in advance refunding situations.

Through a multi-variable regression analysis we have determined that these four factors (10-year Treasury yield, state and local government tax revenues, the slope of the Treasury yield curve and 5-year MMD — Treasury ratio) explain 82% of variability in new issue volume. The intercept and regression coefficients were all statistically significant.

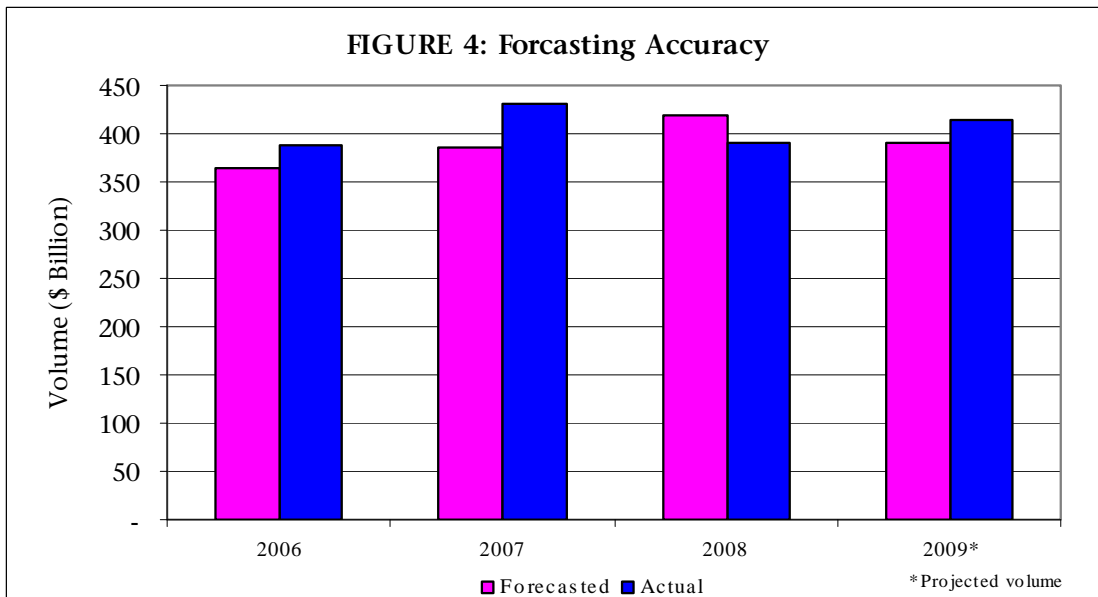
Conclusions

Based on the regression equation and our estimate of regression parameters, we forecast approximately \$435 billion of new bond issues in 2010. Build America Bonds (BABs) may comprise about 30% of total volume, or \$130 billion. Lower cost of capital induces slightly more issuance, even though municipalities do not usually respond to these incentives the same way as corporations. We view BABs as a one-for-one transfer from tax-exempts.

Figure 3 shows historical new issue volume broken down among new money, refundings and combined bond issues. The chart indicates that this year's total volume is on track to be the second highest on record.



Finally, we compare our forecasts over the last 4 years with actual volumes. On average, forecasted volumes were off by 8%, in line with expected accuracy of our model using in-sample data.



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