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Making the Case for the High Efficiency of the Tax Exemption - It's in the Numbers.

As tax reform takes shape, a key challenge for the municipal market in maintaining full access to the tax exemption stems from a factually flawed methodology utilized by the Joint Committee on Taxation.

Over a long period of time, we have been told, “don’t try arguing with Joint Tax methodology, their methodology is accepted by Congress, the Administration and staff as being gospel.” However, what if the problems with the Joint Tax analysis stem not primarily from methodology, but from factual inaccuracies in the data underpinning the analysis?

Under its analysis, the JCT comes to three conclusions:

1. That municipal yields as a percentage of taxable yields are high;
2. That this high ratio results in the marginal tax rate of the marginal investor in municipals being low; and,
3. That, as a consequence, everyone in a higher tax bracket received a “windfall”—a higher yield than would be needed to needed to attract them to buy municipals.

Under their methodology, long-term municipal yields as a percentage of corporate yields are indeed quite high – roughly 94% on long-term A1/A+-rated paper. However, the high ratio vanishes when two simple but essential adjustments are made to the calculation: The first adjustment is to compare municipals to corporate bonds that are actually similar, which the Joint Tax report demonstrably did not. We stress that this adjustment does not reflect a change in methodology relative to the JCT. It simply makes sure that the analysis involves an “apples vs. apples” comparison.

The second adjustment is to increase municipal yields to the levels that would be needed to clear the market if these municipals came as taxable bonds. That is a higher yield than that which would show on corporate indices, because as currently constructed, municipals have certain disadvantages that would force them to pay a higher yield than corporate bond indices suggest, if they came in the taxable market. These disadvantages include weaker call provisions, lower liquidity on smaller maturities, and a weaker disclosure regime than on corporate bonds. Having shown how these two adjustments would look, we then discuss two other factors, which provide important pieces of evidence that the conclusions of Joint Tax are incorrect—the functioning of the market for “Private Activity Bonds” subject to the Alternative Minimum Tax, and the pattern during the second half of 2009 and 2010, when taxable “Build America Bonds” were available as an alternative to tax-exempts.

The bottom line is that in our view, the 2012 report out of Joint Tax on their methodology for determining the efficiency of the tax-exemption was severely factually flawed:

- Triple-A corporates were compared to A1/A+ municipals using the Bond Buyer 20-Bond Index (BBI);
- The fact that the BBI severely overstates actual borrowing costs in the municipal bond market was

ignored;
- The fact that municipals with shorter maturities compare much more favorably than longer bonds in comparison with taxable bonds was ignored; and,
- The more favorable structure of corporate bonds with respect to call provisions, liquidity and disclosure, which reduces their borrowing cost relative to the likely cost of fully taxable municipals was ignored.

All of the above factors create an illusion the JCT analysis that muni yields as a percentage of corporate bond yields are much higher than they are in the real world.

Finally, the underlying assumption that, if tax-exempts did not exist, investors would only buy fully-taxed corporates as an alternative, is simply incorrect, as Joseph Poterba at MIT has shown. At the maximum 40% tax rate on corporate bond interest, a vast number of investors would, if they could not buy tax exempts, seek out an alternative with a lower Federal tax rate, such as the 20% maximum rate on dividends and capital gains.

Working Through the Numbers

In our analysis, we start with the yield ratio we would expect JCT to derive using its flawed data. Using this starting point, we would have a tripleA corporate bond index of roughly 3.50%, and a yield on the Bond Buyer 20-bond Index of roughly 3.87%. This provides a starting point ratio of roughly 107%.

Adjusting for the factual inaccuracies in the data as shown by JCT in its own analysis works out as follows:

1. Currently, municipal yields are inflated to a degree by tax risk fears. In our estimation, long-term municipal yields would be at least 30 basis points lower under “normal” conditions. Since the election, investors have become reticent to put cash to work in the municipal market as a result of fears that tax reform would damage the value of municipals by sharply cutting tax rates or putting a cap on the value of the tax-exemption. Pressures on the municipal market are shown in municipal bond fund flows, which have been a whopping negative $15 billion since the election. Adjusting for tax risk fears, and the ratio declines to 3.57% vs. 3.50%, or 102%.
2. Different quality bonds are being compared. A Triple-A rated Corporate Bond index is compared to the A1/A+ Bond Buyer Index. Use of comparably rated bonds would reduce the ratio on municipal yields to corporate yields considerably. (3.57% /3.60% would become 3.57%/4.10%). The yield ratio would thus move down from 102% to 87% – still very high, but wait…
3. The greatly inflated yield on the BBI. The Bond Buyer Index utilized by the JCT in their analysis ALWAYS yields considerably more than actual municipal bonds, as it did over the entire time period included in the JCT report. During their measurement period, the difference typically ran 80120 basis points. Now, with lower yields in all sectors, the difference still runs 50 basis points for similarly rated bonds due in 20 years. So, the 3.57% to 4.10% comparison above becomes 3.07% to 4.10% when real-world yield levels are used instead of the massively inflated BBI, and the ratio declines to 75%.
4. Differences in call provisions, liquidity and disclosure between A1/A+ corporates and A1/A+ municipals are ignored. To be sold in the taxable market without corporate-like attributes, we estimate that municipals would have to have roughly 40-basis-point higher yields than like-rated corporates, and 60 basis points more for smaller, less liquid issues. Differences include the lack of call risk on corporate bonds versus the ten-year call on nearly all municipals, stronger liquidity resulting from higher per-maturity issue size, and stronger disclosure requirements. So, the comparable ratios become 3.37% to 4.50%, and 3.37% to 4.70%, or the 74.9% to 73% range.
5. A focus on long maturities. As we discuss below, municipal yields as a percentage of taxable

yields tend to be dramatically lower on bonds 11 years and shorter than they are on longer-maturity paper. By our estimate, the ratio in the 10year range would be at least 7 percentage points lower in 10years than it is in the 20-year bonds used in the JCT analysis, and on 5year paper would be another 7 percentage points lower. Using an average of a 10 percentage point drop for paper inside 10 years, and the ratio declines to from 64.9% to 63%.

6. Evidence for a very high clearing marginal tax rate on shorter maturities comes from BABs. During the period from mid-2009 through the end of 2010, nearly 40% of new issues came as Build America Bonds – fully taxable to the investor, but with a 35% subsidy provided to the issuer. Issuers thus had a choice: accept the reduced yield provided by access to the tax exemption, or accept a 35% subsidy. The two choices would essentially be break even when munis yielded exactly 65% as much as taxable BABs. In terms of measuring the efficiency of the tax exemption, here is the interesting result: during that period, a very large proportion of bonds with a maturity longer than roughly 11 years came as BABs, but nearly all bonds with a maturity inside 11 years came in the tax-exempt market. As far as the efficiency of the tax exemption is concerned, the implications are clear: inside roughly 11year maturities, municipal bonds were clearing with a ratio to taxable bonds lower than 65%. This compares with the implied tax rate for municipals during 2009 in the Joint Tax analysis of 13.2%. We estimate that the ratio actually stayed above 30% as far out as roughly 15 year maturities, a sizable component of the entire municipal market – roughly 60%-70%.
7. Thus, simply comparing apples to apples—similarly rated and structured municipals and corporates under current conditions takes the clearing marginal tax rate up from 8% to 34%-38.5%. However, even this purely factual analysis based upon current market conditions ignores an important invalid assumption in the Joint Tax Analysis: That investors who could no longer buy tax exempts would only buy taxable bonds taxed at their maximum income tax rate as an alternative. The problems with the assumption that taxable bonds are the only alternative in the absence of tax-exempts, is shown in the work of Joseph Poterba and teammates at MIT. (Example: *Portfolio Substitution and the Revenue Cost of the Federal Income Tax Exemption for State and Local Government Bonds*, Poterba, James M. and Verdugo, Arturo Ramírez, National Tax Journal, June 2011.)

It’s Not Just Municipals vs Taxable Bonds

Having adjusted the yield comparison to provide an apples-versus-apples comparison, we arrive at an adjusted yield ratio of municipal yields to corporate yields, at various spots along the yield curve. While this adjustment suggests a marginal tax rate for the marginal buyer that is vastly higher than the JCT suggests, we then explain why the assumption that this ratio represents a complete comparison of the two markets is highly flawed. This assumption has been deconstructed by Poterba at MIT, among others.

In reality, in the absence of a tax-exemption, most investors would not buy taxable bonds taxed at their maximum marginal rate; they would hold more cash/nearcash (they currently hold 6X as much cash as the do municipals), or they would buy investments with a lower effective tax rate. Currently, dividends and capital gains are taxed at a maximum rate of 20%. With longterm corporate yields around 4.25%, investors in roughly the 40% tax bracket would earn roughly 2.50%, after-tax. As Drs. Poterba and Verdugo note, lacking access to tax-exempts, many of these investors would choose dividend paying stocks, or invest for a longterm capital gain, rather than buying fully taxable bonds. The idea that the difference between the ratio of municipal yields to corporate yields and investors’ maximum tax brackets represents a “windfall” to the high bracket investor is simply incorrect, because investors have other choices.

Impact of a Cap on the Tax Exemption—Evidence From the Market for Bonds Subject to the

AMT

Our message in the above is that, when comparisons between munis and corporates are measured properly, municipal yields as a percentage of taxable yields are vastly lower than that shown in the Joint Tax analysis. Quite simply, the low marginal efficiency of the tax-exempt market described by Joint Tax in its analysis results from inaccurate data. We do not attack the methodology, we simply show that the clearing marginal tax rate for municipals, properly measured, is quite high under most market conditions.

In addition, the question has come up as to what the impact would be of a 28% cap on the tax-exemption.

In our view there is already evidence of the impact from the functioning of the market for PABs subject to the AMT.

These bonds are subject to a "surtax" on the interest, but only for investors who pay the AMT. For other investors, the AMT has no effect. Even with this limited target for the surtax, bonds subject to the AMT cost issuers roughly 30 basis points more than nonAMT paper. To investors who do not pay the AMT, the extra yield is a "windfall" that provides no tax revenue to the Treasury. Now consider what would occur if all municipals were subject to a surtax in the form of a 28% cap: we would expect the cost of borrowing in the municipal market to rise substantially more than 30 basis points. In our estimate, the impact would range from 50 basis points to 75 basis points or more for the entire market. Please note that when municipals and corporates are compared properly, the clearing ratio of yields generally put the marginal tax rate above 28%. As a consequence, in our view, a 28% cap would be quite damaging the in the form of higher borrowing costs.

The Bottom Line

Decision makers often cite the Joint Tax methodology in explaining why they believe the tax exemption to be an inefficient subsidy. To a very significant degree, we believe that the JCT analysis is flawed, not because its methodology is incorrect, but because its data is wrong: its comparison is a clear "apples to oranges" comparison. When the data is adjusted to compare similar bonds in both sectors, we discover that muni yields as a percentage of corporate bonds actually provide a marginal tax rate that is impressively high. In addition, we site one comparison from the work of Joseph Poterba et al at MIT: we believe, as he does, that if the tax-exemption were eliminated, many investors would substitute other investments with a tax rate roughly half of that on full taxable bond interest. Given all of this, the premise that the muni market clears through investors with a low marginal tax rate—thereby giving a windfall to high bracket investors – is simply incorrect.

The Bond Buyer

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