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Tax implications on discount munis

Education Note

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The "de minimis" rule

- A rule applied to determine if there is a "market discount" on a bond purchased in the secondary market.
- The de minimis rule exists so that if a bond is purchased with a small discount — *less than 0.25% times the stated redemption price of the bond at maturity times the number of full years between settlement and maturity* — the "market discount" is considered to be zero. Thus, the small amount of discount is taxed as a capital gain.
- If the amount of discount is equal to or exceeds this amount, then **the entire** discount is "market discount." Accrued market discount is taxed as *ordinary income* if there is a gain when the bond is sold or redeemed.

Rising muni yields lift the supply of market discount bonds

- Market discount bonds can arise if bonds are issued at par or a premium and are later purchased in the secondary market at a price that is less than par.
- Market discount, unlike original issue discount (OID), is not treated as tax-exempt interest to the holder because it arises as a result of market forces (i.e., rising interest rates) not through the action of the issuer.

Compare pretax and after-tax yields

- Market discount bonds can be favorable or unfavorable investments depending on their after-tax yields.
- Taxes due on discount bonds reduce the pretax yield on the bonds to an after-tax yield.
- The after-tax yield calculations can be complex. Thus, investors should consult with their personal tax advisors on how this rule may have an impact on their tax liability.

Source: Ailine Liefeld

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This education note provides an overview of the tax treatment of market discount on tax-exempt municipal bonds purchased in the secondary market and includes some examples.

Discounts and the de minimis rule

Prior to enactment of the 1993 Federal/budget tax bill, all municipal bond "market discount" was taxed at the capital gains tax rate. However, for bonds purchased after 30 April 1993, the "market discount" that an investor earns is taxed at the investor's ordinary income tax rate, except under a de minimis exclusion. If a bond is purchased with a small discount, (In Latin, de minimis means small) the discount is taxed at the capital gains rate.

For tax purposes, market discount may be realized either when a bond matures, or when a bond with accrued market discount is sold at a gain prior to maturity. For calculation purposes, the tax is assumed to be paid at maturity. As a result, the impact of the tax is greater on shorter maturity bonds.

Discounts within de minimis
If the discount on a municipal bond purchased in the secondary market is a small discount – *less than 0.25% times the stated redemption price of the bond at maturity times the number of full years between settlement and maturity* — the "market discount" is considered to be zero. Thus, the small amount of discount is taxed as a *capital gain*.

Discounts outside de minimis
If the discount on a municipal bond purchased in the secondary market is equal to or exceeds the de minimis threshold – the entire discount is considered to be market discount and is taxed as *ordinary income*.

Rising muni yields lifts the supply of market discount bonds

Market discount on a tax-exempt bond can arise if:

1. the bond is issued at par or at a premium and is later purchased in the secondary market at a price that is less than par or
2. the bond is issued at an original issue discount (OID), including zero coupon bonds and is later purchased in the secondary market at a price that is less than the original issue price plus accrued OID through the date of purchase. This is also known as the revised issue price.

The risk of a bond falling outside the de minimis threshold will depend on the characteristics of the individual bond as well as prevailing market conditions, such as rising interest rates or declining credit profiles. *Because the loss of the de minimis exclusion means that a subsequent holder could face a higher tax rate on any market discount gains that they earn, the likelihood of a bond being excluded from the de minimis provision can affect its liquidity and trading value. In times of sharp interest rate increases, values can fall rapidly as the price of a bond crosses over the de minimis threshold.* In contrast, in declining interest rate environments, bond values may benefit from the de minimis exclusion.

Calculating market discount and after-tax yields

A municipal bond is a discount bond when it trades in the secondary market at a price below its face value or, in the case of original issue discounts (OID), below the revised issue price at purchase. The de minimis rule is used to determine if the discount is a market discount and is taxed as ordinary income or the discount is small and is taxed as a capital gain. The examples below assume that a 40.8% tax rate is used for ordinary income and a 23.8% rate is used for capital gains.

Currently, the top rate for ordinary income and capital gains is 40.8% and 23.8%, respectively. Both rates include a 3.8% surtax imposed on passive net investment income for top earners. Bear in mind that lower tax rates would have less of an impact on after-tax yield calculations than higher tax rates.

Example 1 – A bond originally issued at par is purchased in the secondary market at a discount *outside de minimis*

A 3.00% bond maturing in 10 years is purchased in the secondary market at USD 95.

- Coupon rate: 3.00%
- Years to maturity: 10 years
- Purchase price: USD 95
- Purchase yield: 3.60%
- De minimis allowance: 10 years x USD 2.50 = USD 25.00 per USD 1,000 maturity value (USD 2.50 per USD 100)
- De minimis threshold: USD 100.00-USD 2.50 = USD 97.50

Is the purchase price lower than the threshold? **Yes, USD 95 < USD 97.50**

- Amount of market discount lost to taxes at maturity = USD 5 x **40.8%** = USD 2.04
- After-tax yield = 3.42%
- The pretax yield = **3.60%** and the after-tax yield = **3.42%**.

The lower after tax yield reflects that the **entire market discount** of 5 points per bond is taxed as **ordinary income** at maturity.

Example 2 – A bond originally issued at par is purchased in the secondary market at a discount *within de minimis*

The same bond from Example 1, a 3.00% bond maturing in 10 years is purchased in the secondary market at USD 98.

- Coupon rate: 3.00%
- Years to maturity: 10 years
- Purchase price: USD 98
- Purchase yield: 3.23%
- De minimis allowance: 10 years x USD 2.50 = USD 25.00 per USD 1,000 maturity value (USD 2.50 per USD 100)
- De minimis threshold: USD 100.00-USD 2.50 = USD 97.50

Is the purchase price lower than the threshold? **No, USD 98 > USD 97.50**

- Amount of discount lost to taxes at maturity = USD 2 x **23.8%** = USD 0.48
- After-tax yield = 3.19%
- The pretax yield is **3.23%** and the after-tax yield is **3.19%.**

The lower after-tax yield reflects that the small discount is taxed as **capital gains** at maturity.

Example 3 – A bond originally issued at an original issue discount (OID) is purchased in the secondary market at a discount *outside de minimis*

A 3.50% bond maturing in 20 years is purchased in the secondary market at USD 90

- Coupon rate: 3.50%
- Years to maturity: 20
- Purchase price: USD 90.00
- Revised issue price/OID price: USD 97.884/USD 97.556
- Purchase yield/OID yield: 4.25%/3.65%
- De minimis allowance: 20 years x USD 2.50 = USD 50.00 per USD 1,000 maturity value (USD 5.00 per USD 100)
- De minimis threshold: USD 97.884-USD 5.00 = USD 92.884

Is the purchase price lower than the threshold? **Yes, USD 90.00 < USD 92.884**

- Amount of discount lost to taxes at maturity = USD 7.883 x **40.8%** = USD 3.22
- After-tax yield = 4.13%
- The pretax yield = **4.25%** and the after-tax yield = **4.13%.**

The lower after-tax yield reflects that the **entire market discount** of 7.883 points per bond is taxed as **ordinary income** at maturity.

Example 4 – A bond originally issued at an original issue discount (OID) is purchased in the secondary market at a discount within *de minimis*

The same bond in Example 3 is purchased in the secondary market at USD 94.00

- Coupon rate: 3.50%
- Years to maturity: 20
- Purchase price: USD 94.00
- Revised issue price/OID price: USD 97.884/ USD 97.556
- Purchase yield/OID yield: 3.94%/3.65%
- De minimis allowance: 20 years x USD 2.50 = USD 5.00 per USD 1,000 maturity value (USD 5.00 per USD 100)
- De minimis threshold: USD 97.884-USD 5.00 = USD 92.884

Is the purchase price lower than the threshold? **No, USD 94.00 > USD 92.884**

- Amount of discount lost to taxes at maturity = USD 3.883 x **23.8%** = USD 0.924
- After-tax yield = **3.90**%
- The pretax yield = **3.94%** and the after-tax yield = **3.90%**

The slightly lower after-tax yield reflects that the small discount is taxed at a **capital gains** rate at maturity.

Important note

These calculations are complex and holders who purchase bonds in the secondary market should consult with their personal tax advisors to ensure that they have adequate information to determine how the tax treatment of municipal bonds will have an impact on their own tax liability. The calculations above were supplied by Bloomberg analytics.

Additional information can be found through the following publications:

- Internal Revenue Service (IRS) IRS Publication 1212, Guide to Original Issue Discount (OID) Instruments
- IRS Publication 550, Investment Income and Expenses
- Municipal Securities Rulemaking Board (MSRB), About Original Issue Discount Bonds

Glossary of terms

Accrued market discount — the amount of market discount that has accrued between two dates. For tax purposes, accrued market discount can be calculated by using the straight-line method or the constant yield method.

Accrued original issue discount (OID) — the amount of OID accrued between two dates. For tax purposes, OID accrues on a constant yield method.

De minimis — a rule applied to determine if there is a market discount on a municipal bond purchased in the secondary market.

Discount bonds — are bonds that are priced at less than their face value (par).

Market discount — on a bond sold below its revised issue price/compound accreted value for an OID and below par for a non-OID, the difference between the purchase price and the revised issue price is the market discount.

Original issue discount (OID) — is the amount of discount below par at which a bond is issued. OID may be expressed as either a dollar price or an interest rate. OID on tax-exempt municipal bonds is treated the same as tax-exempt interest.

Revised issue price/compound accreted value — the original issue price plus accrued OID through the date of purchase. The revised issue price is specific to a given date.

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Appendix

Municipal bonds - Although historical default rates are very low, all municipal bonds carry credit risk, with the degree of risk largely following the particular bond's sector. Additionally, all municipal bonds feature valuation, return, and liquidity risk. Valuation tends to follow internal and external factors, including the level of interest rates, bond ratings, supply factors, and media reporting. These can be difficult or impossible to project accurately. Also, most municipal bonds are callable and/or subject to earlier-than-expected redemption, which can reduce an investor's total return. Because of the large number of municipal issuers and credit structures, not all bonds can be easily or quickly sold on the open market.

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Municipal Credit Views General Methodology Description

The following are the key steps underlying the general methodology of the framework:

1. **Identify Risk Drivers:** Identify broad factors that impact credit quality in a given sector (Risk Drivers). For example, the Local Government framework utilizes three Risk Drivers; Economy & Tax Base, Financial Performance, and Long-term Liabilities whereas the Airport framework uses Service Area and Market, Financial Performance and Leverage & Coverage.
2. **Select metrics** (usually ratios and growth rates) that best represent each Risk Driver (typically 3-5 metrics per Risk Driver).
3. **Assign a weight to each metric** representing its relative importance. The sum of all metric weights equals 100%.
4. **Source relevant economic and financial data** (from 3rd parties) and calculate each metric for each covered obligor in the sector.
5. **Score each metric for each covered obligor on 1-5 scale** (1 representing lowest risk). This involves the following: setting thresholds corresponding to scores 1-5 based on subjective judgment informed by median value of the metric.
6. **Calculate a weighted average risk score** for each covered obligor using individual metric weights and scores. This weighted average score also lies between 1 and 5.
7. **Compute a final risk score** for each covered obligor by making quantitative adjustments to the weighted average score (per specified criteria) to reflect "outlier risk": a) Reward/penalty for very strong or very adverse performance on any Risk Driver, b) This typically affects a small number of covered obligors in a sector.
8. Compare the risk score (1-5) for each covered credit to a pre-specified scale to **assign a Quantitative Risk Assessment** to each obligor. The Quantitative Risk Assessment is a number from 1-5.
9. **Assign a CIO Risk Category** (1-5) to each obligor reflecting CIO s overall view of the obligor. The respective definitions are shown in the next section. The CIO Risk Category is: a) based on Quantitative Risk Assessment + Qualitative factors, b) the same as the Quantitative Risk Assessment for the vast majority of covered obligors.
10. Prepare a table of key results of the framework. For each covered obligor the table shows: a) A description on how it performed on each risk driver, b) The Quantitative Risk Assessment, c) The CIO Risk Category, d) An explanation if the CIO Risk Category differs from the Quantitative Risk Assessment.

CIO Risk Category Definitions

Category 1 (Lowest): We believe borrowers in this top tier are well-insulated from adverse credit developments in the near term. These bond issuers are characterized by having access to sufficient financial resources to withstand recessionary pressure without degradation in credit quality, in our view.

Category 2 (Low): These borrowers are highly regarded and exhibit excellent credit profiles but are not quite as well-positioned as those in our first category. However, the credit risk posed by the obligors in this category remains very low.

Category 3 (Moderate): While we view the obligors classified in the prior two categories to pose the lowest credit risks, the borrowers in Category 3 should still exhibit resilience in the face of future financial stress. Credit risk remains relatively low, though not as low as those obligors in Category 1 and 2.

Category 4 (High): We believe that obligors placed in this category, while possessing some desirable credit attributes (e.g., a commanding market position or an exclusive right to provide service) also have identifiable credit challenges such as high leverage and/or low coverage that could lead to a weaker credit profile over time and will require closer surveillance.

Category 5 (Highest): We view the obligors placed in this category to exhibit material weakness in credit quality due to adverse financial and economic conditions or idiosyncratic risks. The debt of obligors placed in this category may not be appropriate instruments for investors with conservative investment risk profiles.

Terms and Abbreviations
GO: General Obligation Bond
MMD: Municipal Market Data
TEY: Taxable Equivalent Yield (tax free yield divided by 100 minus the marginal tax rate)

	Rating Agencies			Credit Ratings
	S&P	Moody's	Fitch/IBCA	Definition
Investment Grade	AAA	Aaa	AAA	Issuers have exceptionally strong credit quality. AAA is the best credit quality.
	AA+ AA AA-	Aa1 Aa2 Aa3	AA+ AA AA-	Issuers have very strong credit quality.
	A+ A A-	A1 A2 A3	A+ A A-	Issuers have high credit quality.
	BBB+ BBB BBB-	Baa1 Baa2 Baa3	BBB+ BBB BBB-	Issuers have adequate credit quality. This is the lowest Investment Grade category.
Non-Investment Grade	BB+ BB BB-	Ba1 Ba2 Ba3	BB+ BB BB-	Issuers have weak credit quality. This is the highest Speculative Grade category.
	B+ B B-	B1 B2 B3	B+ B B-	Issuers have very weak credit quality.
	CCC+ CCC CCC-	Caa1 Caa2 Caa3	CCC+ CCC CCC-	Issuers have extremely weak credit quality.
	CC C	Ca	CC+ CC CC-	Issuers have very high risk of default.
	D	C	DDD	Obligor failed to make payment on one or more of its financial commitments. this is the lowest quality of the Speculative Grade category.

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