Breaking Down the General Obligation Bond

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SUMMARY

General Obligation (GO) Bonds have a reputation for safety that is well deserved based on a long history of reliable repayments and virtually no defaults. At the same time, the universe of GO securities is much broader than commonly appreciated. In light of recent high profile bankruptcies and pending challenges in the sector, we are sharing some important features, distinctions, and considerations we make when assessing GO securities.

1. Credit quality is the best indicator of repayment.
2. Sustaining core municipal functions is senior to paying bonds.
3. GO security features vary widely, impacting ordinary payments and recovery in a distressed situation.
4. Restructuring outcomes are situational, political, and subject to state law.

Credit Quality Is the Best Indicator of Repayment

As long as an issuer is feasibly able to do so, incentives exist to cause an obligor to make good on debt obligations. These incentives, both political and economic, cause the vast majority of municipal entities to repay securities with even the weakest of security features.

Growing challenges in the sector include increasing competition for residents and business, increasing exposure to stock market volatility, growing costs of pensions, sluggish economic growth, weak fiscal management, and rising healthcare costs. These challenges may push marginal credits into stress, default or restructuring scenarios, particularly as Chapter 9 becomes a more familiar and effective tool of relief. While no entity is immune from these challenges and general economic volatility, the best way to ensure repayment of any bond is to pick obligated entities that demonstrate sustainability and flexibility in their fiscal practices and are well-positioned to withstand the natural volatility inherent in the municipal sector.

Sustaining Core Municipal Functions are Senior to Paying Bonds

As credit quality erodes and political or economic structure breaks down, the incentive to repay bonds becomes secondary to policing the streets, paying wages, and retaining businesses and residents. The promise to pay holds little weight at that point, and despite promises made, the first priority of tax revenue is not to repay debt, but to sustain viability of the municipality though providing core functions to residents. This generally includes the payment of pensions. In a restructuring, the goal is to right size government and create sustainability given the capacity of the tax base to pay. Bond holders should expect to be paid from whatever is left over.

Security Features Matter

During distress, as well as in a restructuring situation, security features will become central in understanding the potential for recovery.

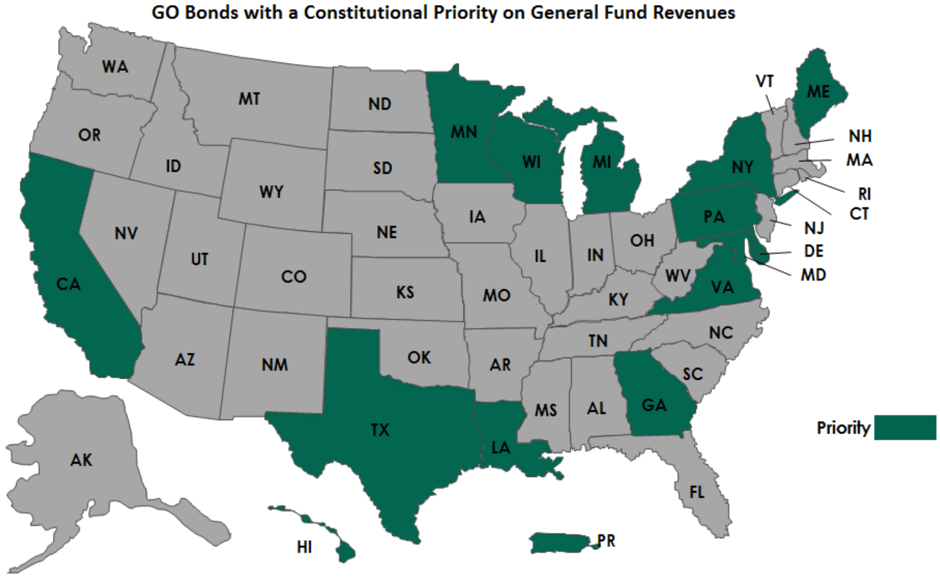
State General Obligation Bonds

States are unique from local government in that they are sovereign and are not eligible for federal bankruptcy. We have no examples to draw from for state GO security recovery in the event of default or restructuring and, would not expect that one situation of distress would necessarily mirror another. There are some differences in the specific pledge of repayment for State GO bonds, and these protections give us some confidence that priority of payment for GO bonds would fall above other forms of debt paid by the general fund. While these are worth noting and can protect bondholders in many materially stressed situations, for a State that has reached the point of government restructuring, these distinctions may carry little weight.

- Full Faith & Credit Pledge: Virtually all State GO bonds carry a full faith and credit pledge which constitutes a general promise to pay from any available revenue source, but lacks any specific claim on assets or a revenue source.

- Constitutional Priority: The following state constitutions offer priority of general fund revenues to pay GO debt service. California offers priority second only to K-14 education.

GO Bonds with a Constitutional Priority on General Fund Revenues



Source: Northern Trust Asset Management, Fidelity Capital Markets

- Continuous Appropriation: Many constitutions, including Oregon, Utah and Illinois, specify that payment of GO debt service is not subject to appropriation, meaning it can not be cut from the budget. Others operate under this feature by law or practice, even if not specifically outlined in the constitution. This feature also can protect debt service from the potential of non-payment due to protracted government shutdown or late budgets.

- Flow of Funds: Many states will set aside revenues for debt service from first available funds. Others, like Louisiana and Illinois, have a formal process under which funds are automatically directed to a trustee upon receipt-protecting the payment from mishandling or alternate use. This structure is beneficial in a stress situation or liquidity crisis, but, by itself, may not protect from impairment during restructuring.

- Unlimited Tax Pledge: A few states, including Utah and South Carolina, pledge a property tax to back GO bond repayment, though may or may not utilize this source for repayment.

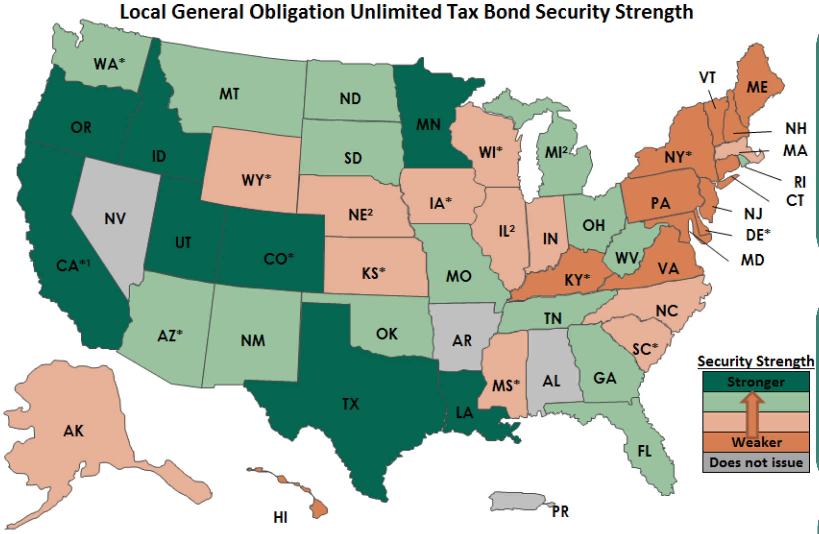
Local General Obligation Bonds

Local entities can issue General Obligation Limited Tax (GOLT) or General Obligation Unlimited Tax (GOULT) bonds. The GOULT, in its stronger form, is backed by the obligation to levy a dedicated property tax unlimited by rate or amount. In its weaker form, the bond is backed by the ability of the issuing entity to levy taxes at an unlimited rate, but pledges no specific payment source. The distinction for GOLT is that payment is backed by the entity's obligation to levy a tax up to a certain rate or amount to pay debt service. However, the monies pledged are most often shared with general operations, ultimately resulting in no claim for bondholders over any other claim paid under the levy.

In itself, the name of the bond means little in understanding the true security features of the bond. Bondholder protections offered to these bonds vary drastically across states and obligors. In the Detroit case, security provisions played a key role in the level of recovery for all associated securities. It is important to understand the specific protections (listed below), as each will have varying impact on payment during a period of fiscal distress, bankruptcy or restructuring.

In the below assessment – the strongest of security will have a combination of features adding up to least 7 points and the lowest will have 2 or less points.

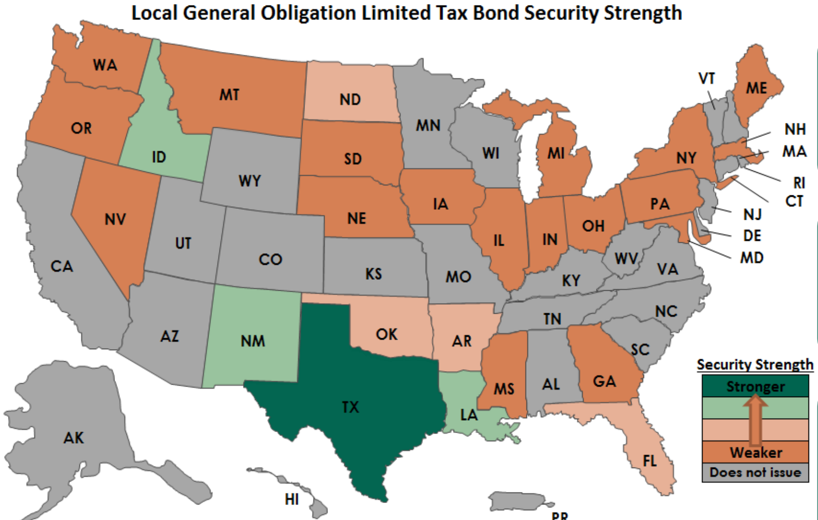
Local General Obligation Unlimited Tax Bond Security Strength



* School Districts are one notch stronger based on the presence of voter approval or lockbox structure
[1] California's statutory lien is effective January of 2016.
[2] States currently considering legislation to create statutory lien.
Issuance by home-rule entities in any state may not apply
May not apply in all cases

Sources: Northern Trust Asset Management, Moody's Investor's Service

Local General Obligation Limited Tax Bond Security Strength



May not apply in all cases

Source: Northern Trust Asset Management, Moody's Investor's Service

See appendix for more detail.

Statutory Lien: (5 points) The statutory lien (or perfected security interest) clarifies the restriction of pledged revenues solely for the use of bond repayment. In other words, it clearly protects against pledged tax revenues from being diverted to other uses in the event of bankruptcy. This feature is the strongest of possible security features, though few states offer an explicit or implied statutory lien for GOLT or GOULT bonds.

Voter Approval: (2 points) A vote by the electorate grants the entity power to levy and collect an unlimited tax for payment of bonds. While this aspect in itself does not protect against potential impairment of bonds, it should restrict the debt service levy from being redirected for other purposes.

Lockbox: (2 points) Five states have a lockbox structure for GOULT school district issuance only. A lock-box structure insures the entity does not have access to debt service funds, and once the tax is collected, monies are set aside by the County to pay debt service.

Separate and Distinct Levy: (2 points) A separate and distinct levy for debt service reinforces the separation of operational revenue and debt servicing revenue. Most often the separate levy is restricted to payment of debt service.

Separately Held Funds: (1 point) Holding funds separate from general operations limits the potential for using funds for other purposes. While helpful, the entity may still have access to borrow, move around, or claw back debt service funds.

Full Faith and Credit Pledge: (1 point) The full faith and credit pledges to pay debt service from any available source. This allows for broad repayment sources, but does not, in itself, pledge any individual source or place priority of payment over any other expenditure. This security feature, by itself, is viewed as generally weak.

Distressed Outcomes are Situational, Political, and Subject to State Law

While security will impact restructuring, it is not the only factor that will have an impact. Recent high profile bankruptcies have demonstrated that what *can* happen under bankruptcy is not always what *will* happen. Situations that are expected to impact recovery include:

- Ability to enter bankruptcy. States are not allowed to file for bankruptcy protection under Chapter 9. Not all States allow local entities to utilize Chapter 9. If unable to restructure through federal bankruptcy court, an entity may attempt to restructure outside the frame of bankruptcy, where outcomes will likely be directed by heavy litigation.

- Security features. Recovery of any security will largely depend on the rights awarded to bondholders. Debt recovery will not only be impacted by a bond's own security features, but also the security features that may prioritize repayment of one bond over another.
  - New York State issues most new debt with a pledge of existing dedicated taxes from income or sales tax. These taxes would otherwise flow to the General Fund to pay GO bonds – potentially interpreted as a prioritization of dedicated tax bonds over GO bonds.

- State laws. Unique state laws or statutes may protect or threaten bond security or repayment mechanisms. Examples include:
  - A Rhode Island law prioritizes bondholders above all other creditors (not court tested).
  - California's Proposition 13 (limiting taxing ability of local entities) may protect against redirection of debt service levy to pay other obligations, including pensions.

- Nature and degree of credit stress. No municipal bankruptcy or restructuring will be the same. Why an entity enters bankruptcy will directly impact outcomes. Detroit entered primarily due to a declining tax base, and most bondholders saw impairment. Orange County entered because of investment losses and bondholders were eventually made whole. In the end, the greater the distress, the greater the breakdown in bondholder protections and the greater the hit to even the most "protected" of securities.

- Debt profile. The amount of debt by security can impact the necessity of impairment. For example: all else equal, GO debt that comprises 10% of the total debt may see better recovery than a debt profile that is 100% GO debt, because the lower securities will likely bear the greater required impairment.

- Public Opinion. The opinion of local residents as well as the general public will carry weight. The notion of "Wall Street vs. Main Street" has and will continue to impact outcomes.

- Politics. Political priorities, goals, and implications on the side of the obligor as well as the creditors will inevitably impact outcomes. Bondholders will need to weigh the potential implications of cram down, public opinion and future business opportunities.

- Court precedent. State or national precedent may exist for certain considerations. Future cases may set state or national precedent.

CONCLUSION

General Obligation bonds have historically been a highly reliable investment. We anticipate that to continue for the vast majority of the market. At the margin, however, we may see additional restructuring situations where GO recovery is threatened. While the best indicator of repayment is credit quality, security features, as well as various other factors should be understood when picking securities, as they will impact recovery in the event of distress.

Local General Obligation Unlimited Tax Features by State

State	Statutory Lien	Voter Approval	Lockbox	Separate Levy	Separate Fund	Full Faith & Credit	Total Points
AL	-	-	-	-	-	-	-
AK	-	2	-	-	-	1	3
AZ	-	2	SD only	2	1	-	5
AR	-	-	-	-	-	-	-
CA	5	2	SD only	2	1	-	10
CO	5	2	SD only	2	1	1	11
CT	-	-	-	-	-	1	1
DE	-	SD only	-	-	-	1	1
FL	-	2	-	2	1	1	6
GA	-	2	-	2	1	1	6
HI	-	-	-	-	-	1	1
ID	5	2	-	2	-	1	10
IL	-	-	-	2	-	1	3
IN	-	2	-	2	-	-	4
IA	-	SD only	-	2	1	-	3
KS	-	SD only	-	2	-	1	3
KY	-	SD only	-	-	1	1	2
LA	5	2	-	2	1	1	11
ME	-	-	-	-	-	1	1
MD	-	-	-	-	-	1	1
MA	-	2	-	2	-	-	4
MI	-	2	-	2	-	1	5
MN	5	2	-	2	1	1	11
MS	-	SD only	-	2	-	1	3
MO	-	2	-	2	1	1	6
MT	-	2	-	2	1	1	6
NE	-	2	-	2	-	-	4
NV	-	-	-	-	-	-	-
NH	-	-	-	-	-	1	1
NJ	-	-	-	-	-	1	1
NM	-	2	-	2	-	1	5
NY	-	SD only	-	-	-	1	1
NC	-	2	-	-	-	1	3
ND	-	2	-	2	1	1	6
OH	-	2	-	2	1	-	5
OK	-	2	-	2	1	1	6
OR	5	2	-	2	-	1	10
PA	-	-	-	-	-	1	1
RI	5	-	-	-	-	1	6
SC	-	-	SD only	2	1	1	4
SD	-	2	-	2	1	-	5
TN	5	-	-	-	-	1	6
TX	5	2	-	2	1	-	10
UT	5	2	-	2	1	1	11
VT	-	-	-	-	-	1	1
VA	-	-	-	-	-	1	1
WA	-	2	SD only	2	1	-	5
WV	-	2	-	2	1	-	5
WI	-	SD only	-	2	1	1	4
WY	-	SD only	-	2	-	1	3

Local General Obligation Limited Tax Features by State

State	Statutory Lien	Voter Approval	Lockbox	Separate Levy	Separate Fund	Full Faith & Credit	Total Points
AL	-	-	-	-	-	-	-
AK	-	-	-	-	-	-	-
AZ	-	-	-	-	-	-	-
AR	-	2	-	2	-	-	4
CA	-	-	-	-	-	-	-
CO	-	-	-	-	-	-	-
CT	-	-	-	-	-	-	-
DE	-	-	-	-	-	-	-
FL	-	2	-	2	-	-	4
GA	-	-	-	-	-	1	1
HI	-	-	-	-	-	-	-
ID	5	-	-	-	-	1	6
IL	-	-	-	-	-	1	1
IN	-	-	-	2	-	-	2
IA	-	-	-	-	-	1	1
KS	-	-	-	-	-	-	-
KY	-	-	-	-	-	-	-
LA	5	-	-	-	-	-	5
ME	-	-	-	-	-	1	1
MD	-	-	-	-	-	1	1
MA	-	-	-	-	-	1	1
MI	-	-	-	-	-	1	1
MN	-	-	-	-	-	-	-
MS	-	-	-	2	-	-	2
MO	-	-	-	-	-	-	-
MT	-	-	-	-	-	1	1
NE	-	-	-	-	-	-	-
NV	-	-	-	-	-	1	1
NH	-	-	-	-	-	-	-
NJ	-	-	-	-	-	-	-
NM	-	2	-	2	-	1	5
NY	-	-	-	-	-	1	1
NC	-	-	-	-	-	-	-
ND	-	-	-	2	1	-	3
OH	-	-	-	-	-	1	1
OK	-	-	-	2	1	1	4
OR	-	-	-	-	-	1	1
PA	-	-	-	-	-	1	1
RI	-	-	-	-	-	-	-
SC	-	-	-	-	-	-	-
SD	-	-	-	2	-	-	2
TN	-	-	-	-	-	-	-
TX	5	2	-	2	1	-	10
UT	-	-	-	-	-	-	-
VT	-	-	-	-	-	-	-
VA	-	-	-	-	-	-	-
WA	-	-	-	-	-	1	1
WV	-	-	-	-	-	-	-
WI	-	-	-	-	-	-	-
WY	-	-	-	-	-	-	-

SD= School Districts

May not apply in all cases

Source: Northern Trust Asset Management, Moody's Investors Service, Various Official Statements