



# KalotayAnalytics

**FIXED INCOME** INNOVATION, PRECISION & PERFORMANCE

## COVERING THE MUNICIPAL BOND MARKET

### OPTION-BASED ANALYTICS FOR RISK MANAGEMENT AND DEBT MANAGEMENT

Kalotay Analytics' patented technology performs computationally intensive calculations with the precision and speed demanded by the most sophisticated market participants.

From issuance to secondary market trading, Kalotay Analytics delivers the essential tools for structuring new issues and measuring the risk of tax-exempt bonds.



### Kalotay Analytics

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Risk management and tax loss harvesting tools for asset managers

## Tax-Neutral OAS

**MuniOAS** extends conventional OAS analysis by capturing the negative tax effect on the prices of discount munis. This patent-pending approach is deployed by leading institutions, including **BlackRock**, **Investortools**, and will be coming soon to **RiskVal**. MuniOAS enables efficient hedging and rich/cheap analysis by delivering accurate, 'tax-neutral' risk measures — OAS, duration, convexity, and key-rate durations — for all fixed coupon munis, including callable OIDs.

## Tax Loss Harvesting

**MuniSignal** provides a patent-pending framework for maximizing after-tax performance. It calculates the cashflow benefit of selling, using the 'hold value' as the reference point, and then signals whether to sell or hold, based on how much of the forfeited tax option is captured.

## Yield Curve Construction

**CurviLinear** drives the real-time **MBIS** yield curves available on the **MSRB's EMMA** platform and on the **Bond Buyer Data Workstation**. CurviLinear simultaneously solves for the yield curve and the interest rate volatility to best fit a given set of bond prices.

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Debt management tools for issuers, advisors, and underwriters

## Structuring and Refunding

**MuniCycle** enables underwriters, issuers, and advisors to analyze contemplated transactions. This powerful Excel add-in offers option-based analysis for current refunding, and new issue structuring with different coupons and call protection periods.

## Option-Adjusted True Interest Cost

**TIC+** provides an option-based yardstick for comparing competitive bids. It enhances the conventional TIC by taking call options into account. Patent-pending TIC+ is available via **IPREO**.

## Muni Insurance Evaluation

**MINER** enables issuers and advisors to identify the best bid in a competitive situation. It compares alternative payment plans, including a single upfront premium, or a smaller upfront premium followed by annual payments commencing on the first call date. It also accommodates the **Build America Mutual** plan, which provides a partial premium rebate upon early redemption, applicable to insuring the refunding issue.

