Many investors may question an investment in municipal bonds tied to tobacco companies. However, contrary to what the name might imply, tobacco settlement securitization bonds, or TSSBs, do not benefit from tobacco company profits. The factors driving their performance are much different from the bonds and stocks issued by tobacco companies for financing purposes. Unlike traditional corporate bonds, these municipal bonds are backed by the penalty, or settlement payments, that tobacco manufacturers agreed to pay to US states and territories on an annual basis for posing public health risks and costs.

As tobacco bonds are a significant portion of the municipal bond high-yield index, we believe it is important to be aware of the exposures within the context of the high-yield municipal bond market. We generally remain cautious in the sector relative to the benchmark because of the downward trends in Master Settlement Agreement (MSA) payments, but we have continued to find pockets of investment opportunity with tobacco bonds that offer strong estimated performance potential and adequate breakeven rates based on our analysis. Our extensive research emphasizes deciphering which quality bonds we believe can provide more attractive downside protection in the future.

This primer seeks to set the record straight, explaining:

• The history and role of the sector in the context of the municipal bond market
• How recent developments are impacting our approach to the space
History and Background

On November 23, 1998, a group of US states and territories known as the Settling States entered into a Master Settlement Agreement (MSA) with the four largest US tobacco manufacturers at the time: Philip Morris USA Inc., R.J. Reynolds Tobacco Company, Brown & Williamson Tobacco Corporation, and Lorillard Tobacco Company. These four firms were the Original Participating Manufacturers (OPMs). Subsequent Participating Manufacturers (SPMs) have since joined the settlement agreement and are subject to the same restrictions as the OPMs. As of October 2018, there were more than 50 participating manufacturers bound by the terms of the MSA.

The MSA resolved cigarette smoking-related litigation between the Settling States and the OPMs, releasing the participating manufacturers from past and present smoking-related claims by the Settling States. In addition, the MSA released the OPMs from any future smoking-related claims in exchange for a permanent series of annuity payments. The participating manufacturers also agreed to fund anti-smoking advertising and marketing campaigns within the United States.

Beginning in 2001, states began to utilize MSA payments as collateral for tax-exempt debt issuance. As of December 31, 2018, 23 states and territories as well as local governments in California and New York have issued MSA tobacco bonds through special purpose entities (SPEs), bringing the total tobacco debt market to approximately $32.6 billion.

As the volume of issuance has grown, MSA tobacco bonds have become a significant portion of the high-yield municipal bond market overall, as noted in Exhibit 1. This relative weight means tobacco bonds play an outsized role in driving results for the high-yield municipal bond market overall.

Tobacco Bonds are the Largest Sector of the Index

Exhibit 1: Bloomberg Barclays High-Yield Municipal Bond Index Sector Breakdown
As of December 2018

Tobacco Bonds Have Offered Compelling Returns Relative to Other Sectors

Exhibit 2: Bloomberg Barclays High-Yield Municipal Bond Index Sector Returns
Five-Year Cumulative Returns as of December 31, 2018

Evaluating the Sector: Understanding the Ebbs and Flows of Settlement Payments

When analyzing TSSBs, a detailed understanding of the Master Settlement Agreement is critical. The MSA focuses on cigarettes, defined as any product that contains nicotine and is intended to be burned or heated under ordinary conditions of use. The MSA does not apply to such products as cigars, smokeless tobacco or e-cigarettes. As a result, these products are generally cheaper than traditional cigarettes, which is partially attributable to the increase in market share of alternative tobacco products over the last several years. Yet cigarettes remain the largest share of the tobacco market with approximately 236.746 billion cigarettes sold in 2018, representing approximately 78% of total tobacco sales revenues.

The MSA established an annual base payment that increased to $9.0 billion in April 2018 and is to remain at this level in perpetuity. This base payment is adjusted for various factors, most notably US inflation and national cigarette consumption.
The inflation adjustment is determined each year as the greater of 3.0% and the percentage change in the All-Urban Consumer Price Index, and affects total MSA payments. The payment is then adjusted for changes in the number of cigarettes shipped within the US by the OPMs. The volumetric adjustment compares the actual volume of cigarette shipments to a base volume of 475.7 billion cigarettes. OPM shipments have decreased each year since implementation of the MSA, with recent declines accelerating due primarily to excise tax hikes at both the federal and state levels. Note that since 1998, total OPM shipments have declined by a cumulative 51.80%. The good news is this means that the US public is consuming fewer cigarettes. But as a muni investor, this means a reduction in settlement payments.

In summary, all of these factors can result in volatile year-to-year contributions. The Settling States received $6.088 billion from the PMs in April 2018, which was down from $7.152 billion the prior year and still well below the $9 billion base level.

### Tobacco Bond Income Considerations

Each state receives a fixed portion of these variable MSA payments—directed, either in part or in total, to the special purpose entities to secure tobacco debt. The proportion of MSA revenues pledged as collateral for the tobacco bonds is also a factor influencing investment decisions. The composition of debt can vary significantly from one SPE to another and often includes both senior debt and subordinate debt. Senior tobacco bonds can consist of traditional serial maturities as well as turbo term bonds, which are paid out from MSA revenues remaining after senior interest expense payments. Turbo term bonds have stated maturity dates but can be repaid at any time depending on the amount of tobacco settlement revenues available to the SPE. Subordinate bonds can include current interest bonds as well as zero-coupon bonds, which offer amplified risk as well as the potential for greater returns.

Tobacco bonds function differently from other revenue bonds during a default because the MSA does not have an expiration date. The special purpose entity cannot declare bankruptcy like a traditional municipal issuer. Rather, the tobacco bonds continue to receive their allocation of MSA revenues. Some tobacco bonds are elevated within the capital structure upon a payment default, putting them on parity with more senior debt. A significant portion of tobacco debt is also currently callable ($15.2 billion), which could contribute to additional volatility.

### The Impact of Cigarette Consumption

Many factors play a part in the calculation of the MSA payments. One of the largest drivers is cigarette consumption, which can be influenced by smoking incidence, taxes on cigarettes, regulations, alternative products, and disposable income:

#### Smoking Incidence

- The share of the population that smokes has declined materially over the last 50 years. The incidence rate in adults approximated 14.0% as of December 31, 2017, which was down from 42.4% in 1965, the first year of the survey.
- Estimates project the incidence rate to continue to decline moving forward, falling to approximately 5.0% by 2052.

As the incidence rate drops, so do the MSA payments.
Taxes
- Excise taxes on cigarettes, which are levied by federal, state and local governments, have a negative impact on MSA payments because higher taxes tend to reduce smoking behavior. States have actively increased excise taxes in recent years; only Missouri and North Dakota have not raised their excise taxes since 2002. The average state excise tax approximated $1.75 per pack in 2017, a 56.25% increase over the last 10 years.
- Taxes are the primary driver of cigarette prices, which are negatively correlated with tobacco consumption. A 1% increase in the real price of cigarettes is estimated to result in a 0.223% decline in cigarette consumption in the year when enacted and an additional 0.104% reduction in consumption during the following year. While the percentages are small, when they are applied to millions of smokers, the net result is a significantly smaller number of smokers after every price increase.

Regulations
- Federal and state agencies heavily regulate the tobacco industry. While certain state regulations such as minimum age requirements can impact consumption, the most impactful regulations remain those enacted by the Food and Drug Administration (FDA). In July 2017, the FDA announced it would seek comprehensive reform to lower the level of nicotine in cigarettes to non-addictive levels. The FDA does not possess the authority to ban nicotine or tobacco but can limit the amount that goes into a combustible cigarette, pursuant to the Tobacco Control Act, so long as there is sufficient scientific support to suggest reducing nicotine levels would reduce cigarette consumption.
- In November 2018, the FDA proposed a plan to ban the sale of menthol cigarettes and flavored cigars in the United States. Menthol provides cooling effects that reduce the harshness of cigarette smoke, potentially increasing the appeal for youth smokers. To accomplish the ban, the FDA would need to demonstrate a net benefit to public health, taking into account potential unintended consequences such as an illicit market. The ban is not likely to be implemented for several years, if ever, due to potential legislative and legal challenges from tobacco manufacturers. However, the legislation still represents significant risks for the market, potentially causing many tobacco-backed bonds to take longer to fully amortize than originally anticipated. A ban on menthol could further lower the demand for smoking, which would reduce the MSA payments and likely further weaken the economics for tobacco bonds.

Alternative Products
- Tobacco manufacturers have developed a number of alternative products that are not within the scope of the MSA. These products, which include e-cigarettes, cigars and smokeless tobacco, are not subject to the same advertising restrictions placed on combustible cigarettes nor the same excise taxes, making them an attractive alternative to smokers. For example, Juul, an electronic cigarette manufacturer, has experienced rapid growth since its products entered the market in 2015. In December 2018, Altria, a US cigarette manufacturer, acquired a 35% stake in Juul for $12.8 billion.

Disposable Income
- Tobacco consumption is highly correlated with disposable income, which tends to result in greater consumption during periods of economic growth. It has been estimated that a 1% increase in disposable income results in a roughly 0.274% increase in cigarette consumption.

The Unique Payment Structure Must Be Accounted for When Selecting Tobacco Bonds

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<tr>
<th>Annual Base Pay</th>
<th>Adjustment Factors</th>
<th>Distribution to Settling States</th>
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<td>$9B ±</td>
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<td>Distribution to Special Purpose Entity</td>
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<td>Senior Interest Expense</td>
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<td>Subordinate Principal Payment</td>
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Source: Franklin Templeton Investments. For illustrative purposes only.
Our Approach
We believe security selection is critical in a complex sector such as tobacco, in the context of declining smoking rates and an evolving regulatory environment that could negatively impact the segment’s economics.

Estimating breakeven rates, which measure the maximum amount by which cigarette consumption can decline without resulting in a payment default, is one standard approach to analyzing MSA bonds. In our opinion, many vintage deals were structured to assume lower rates of decline that fail to properly account for the actual consumption trends previously highlighted.

The market inefficiency in the sector includes numerous subordinate bonds with poor breakeven rates, which are unlikely to ever be fully repaid, in our view. We have avoided these securities in favor of higher-quality bonds that we believe can provide more attractive downside protection in the future.

To address this key risk, we employ a multi-variate regression model to project future cigarette consumption as a base estimate. We assess underlying credit fundamentals by estimating a particular bond’s weighted-average life. We evaluate the internal rate of return in addition to the breakeven rate. These credit metrics drive our team’s assessment of relative value in order to select the tobacco bonds that we believe offer the greatest potential for strong risk-adjusted returns.

Conclusion
Tobacco bonds offer investors the opportunity for income generated through settlement payments tobacco manufacturers pay to the states. But the factors affecting those payments are trending downward, which can influence the overall performance of a muni bond portfolio. Considering tobacco bonds are a significant portion of the muni high-yield index, we believe it is important to be aware of the exposures within the context of the high-yield municipal market. We expect the tailwinds that have supported a number of tobacco bonds in recent years are less likely to persist going forward as long as traditional smoking habits continue their downward trends.

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1. As of December 2018.
2. The Settling States include 46 states, the District of Columbia, the Commonwealth of Puerto Rico, Guam, the U.S. Virgin Islands, American Samoa and the Commonwealth of the Northern Mariana Islands.
4. Source: Citigroup, as of December 31, 2018.
5. Source: Barclays, as of December 31, 2018. Performance data represents past performance, which does not guarantee future results. Current performance may differ from figures shown.
6. Source: Barclays, as of November 2016. Performance data represents past performance, which does not guarantee future results. Current performance may differ from figures shown.
7. Source: Barclays. Performance data represents past performance, which does not guarantee future results. Current performance may differ from figures shown.
8. Source: Alcohol and Tobacco Tax and Trade Bureau.
10. Prior to April 2018, base payments included both annual payments and strategic contributions. There were slight differences in how these payments were calculated and the percentage allocated to each state. Beginning with the 2017 sales year, strategic contributions are no longer collected.
11. Source: National Association of Attorneys General, as of April 2011.
15. Source: Centers for Disease Control and Prevention, as of December 31, 2016.
22. As of March 31, 2019. Municipal bond assets under management figure includes US retail municipal bond fund assets and separately managed accounts.
23. For investors subject to the alternative minimum tax, a small portion of fund dividends may be taxable. Distributions of capital gains are generally taxable.
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