



## DEPARTMENT OF AUDITS AND ACCOUNTS

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January 24, 2019

Honorable Brett Harrell  
Chairman, House Ways and Means  
133 Capitol  
Atlanta, Georgia 30334

SUBJECT: Fiscal Note  
House Bill (LC 44 0987)

Dear Chairman Harrell:

Section 1 of the bill would increase the excise tax on cigarettes from 37¢ per pack to 62¢ and the tax rate on little cigars from 2.5¢ per ten to 8 percent of the wholesale price. The bill would also reduce the tax rate of the wholesale price of loose or smokeless tobacco from 10 to 8 percent and the tax rate of the wholesale price of large cigars from 23 to 8 percent. The bill also proposes an 8 percent excise tax rate for modified risk tobacco products as determined by the U.S. Department of Health and Human Services. Section 1 of the bill becomes effective date of January 1, 2020.

Section 2 of the bill proposes to establish a 5¢ per fluid milliliter excise tax on all “consumable vapor products,” defined as any liquid that contains nicotine and is intended to be heated into an aerosol and inhaled. This includes, but is not limited to, “e-liquid, e-juice, vape juice, and cartridges that are prefilled with such a nicotine solution.” Section 2 of the bill becomes effective July 1, 2019.

### Impact on State Revenue

Georgia State University’s Fiscal Research Center (FRC) estimated that the bill would increase state revenue by \$41 to \$42 million in fiscal year 2020 (Table 1). Depending on the effect that the price increase has on those who purchase tobacco products, the revenue increase could vary significantly in subsequent years. Projected revenue gains include all products listed above with the exception of modified risk tobacco products, which are not yet on the market. The attached appendix details the analysis.

**Table 1. Projected Revenue Gains under LC 44 0987**

(\$ millions)	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Low Response, High Revenue	\$42.0	\$75.5	\$72.2	\$68.7	\$65.2
High Response, Low Revenue	\$41.0	\$66.5	\$63.3	\$59.9	\$56.3

Note: Revenue gains in Tables 3, 4, and 5 of appendix may not total due to rounding

**Impact on State Expenditures**

The Department of Revenue estimated that the bill would result in annual costs of \$201,548 for three additional full-time staff. One-time expenditures estimated at \$123,379 would be needed for IT changes as well as enforcement, office and other supplies for new hires.

Sincerely,



Greg S. Griffin  
State Auditor



Kelly Farr, Director  
Office of Planning and Budget

GSG/KF/st

## Analysis by the Fiscal Research Center

### Traditional Tobacco Products

The use of tobacco has been in decline in Georgia since 2005, according to the Centers for Disease Control's State Tobacco Activities Tracking and Evaluation System (STATE). Based on statistics from the Georgia Department of Revenue (DOR), this decline in use has resulted in slowly declining revenues from the current excise tax on tobacco products between FY 2005 and FY 2018, about 0.6 percent per year.

In addition to the expected continuation of this slow decline in tobacco consumption, an increase in excise tax rates would be expected to have behavioral effects due to higher retail prices as more people reduce the amounts they consume, quit outright, or switch to alternatives. Recent empirical research into cigarette consumption, published in the Journal of Health Economics, found that a one percent increase in the final price of a pack of cigarettes results in a .98 percent decline, on average, in the quantity of cigarettes purchased (a -0.98 price elasticity).

Though estimates have historically varied, this most recent research is the first to measure smokers responsiveness to price changes in a marketplace that includes a potential substitute for cigarettes not available in the past, so-called e-cigarettes. Centers for Disease Control (CDC) data on the tax burden of tobacco in 14 states that, since 2005, implemented increases in their cigarette tax by amounts comparable to the increase proposed in LC 44 0987 suggest similar implied elasticities. For these states, the decline in per capita cigarette sales compared to the trend prior to the tax change suggests long-run price elasticities averaging -0.9. For the two most recent changes, Florida's \$1.00 per pack increase in 2010 and Minnesota's \$1.74 per pack increase in 2014, implied long-run elasticities are -1.6 and -1.07 respectively.

Similar research indicates that higher retail prices for loose or smokeless tobacco (LST) and cigars would induce consumers to purchase less of these products as well. A one percent increase in the retail price of LST is predicted to reduce the amount of LST purchased by .2 percent (a -.2 price elasticity) and a one percent increase in the price of cigars is predicted to reduce the amount of cigars purchased by .8 percent (a -.8 price elasticity).

The increases in taxes are assumed to be fully passed through to consumers in higher retail prices. The proposed tobacco excise tax increases are estimated to increase the retail price on a pack of cigarettes by approximately 4.7 percent, an increase in the retail price of small cigars by 8 percent, a decrease the retail price for smokeless or loose tobacco by 2.8 percent, a decrease in the retail price of large cigars by 16.8 percent, all in FY 2020 over the baseline prices.

Key assumptions in high and low revenue estimates are as follows:

- CDC data through 2017 together with DOR data for 2018 suggest that per capita cigarette consumption in Georgia has been declining by about 2.6 percent annually since 2013. Absent a change in cigarette taxes, this rate of decline is assumed to continue. Per capita consumption is estimated at approximately 43.4 packs of cigarettes per person per year as of FY 2018.

- Based on DOR data and data from the Federal Trade Commission on Loose and Smokeless tobacco, per capita LST and cigar consumption are both expected to grow by 3.5 percent annually through 2024.
- Historical price trends are also assumed to continue in the absence of the proposed increase. According to the CDC's STATE data, the average retail price of cigarettes in Georgia increased at an average annual rate of about 2.1 percent between 2012 and 2017.
- Population for the projection period is estimated by applying the latest available OPB population growth rate estimates to the Census population estimate for 2018.
- For cigarettes, the low revenue estimates assume a larger behavioral response to the tax-induced price increase in the number cigarette packs purchased. Specifically, a -1.2 long-run price elasticity is assumed after the first year of higher prices; the first year response is assumed to be half that, a price elasticity of -0.6. The high revenue estimate assumes a less elastic or smaller behavioral response to the tax-induced price increase, using the low end of the range from the literature, a -0.6 price elasticity for all years. The elasticities were used to calculate per capita consumption changes and forecasted Georgia populations were then used to calculate statewide expected consumption.
- For LST, the low revenue estimates assume a -.2 long-run price elasticity after the first year of higher prices; the first year response is assumed to be half that, a price elasticity of -0.1. The high revenue estimate assumes a -0.05 price elasticity for all years, the low end of the range most often cited in the literature.
- For large and small cigars, the low revenue estimates assume a -.8 long-run price elasticity after the first year of higher prices; the first year response is assumed to be half that, a price elasticity of -0.4. The high revenue estimate assumes a -0.3 price elasticity for all years, the low end of the range most often cited.

Finally, because tobacco products are also subject to sales taxes charged on the total retail price including excise taxes, it is expected that sales tax revenues would also be impacted by the proposed excise tax changes. Under the high excise tax revenue case in the fiscal note, the increase in state sales tax revenue could be as high as around \$5.6 million in FY 2020. Under the low revenue case, which assumes a stronger negative behavioral response after the first year, the tax-induced price increases can be expected to decrease sales tax revenue by as much as \$7.3 million in the second year, FY 2021.

Tables 2, 3, and 4 detail the results of the analysis.

**Table 2. Prices and Consumption Under Alternate Behavioral Response Assumptions**

	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
<b>Cigarette Consumption (millions of packs)</b>					
Low Response, High Revenue Case	215	424	418	412	406
High Response, Low Revenue Case	215	412	406	401	395
<b>Wholesale purchases of LST (\$ in millions)</b>					
Low Response, High Revenue Case	\$117	\$251	\$270	\$290	\$312
High Response, Low Revenue Case	\$117	\$252	\$271	\$291	\$313
<b>Wholesale purchases of Large Cigars (\$ in millions)</b>					
Low Response, High Revenue Case	\$91	\$195	\$210	\$226	\$243
High Response, Low Revenue Case	\$92	\$211	\$227	\$244	\$263
<b>Wholesale purchases of Little Cigars (\$ in millions)</b>					
Low Response, High Revenue Case	\$1.9	\$3.9	\$4.2	\$4.5	\$4.8
High Response, Low Revenue Case	\$2.0	\$4.1	\$4.3	\$4.6	\$4.9

**Table 3. High and Low Projected Revenue Gains under LC 44 0987 (detail)**

<i>(\$ millions)</i>	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
<b>Low Response, High Revenue Case</b>					
Cigarettes	\$51.5	\$101.6	\$100.2	\$98.8	\$97.4
Loose or Smokeless Tobacco	-\$2.3	-\$5.0	-\$5.4	-\$5.8	-\$6.2
Large Cigars	-\$12.6	-\$27.2	-\$29.2	-\$31.4	-\$33.8
Little Cigars	\$0.1	\$0.3	\$0.3	\$0.3	\$0.3
Total	\$36.7	\$69.7	\$65.9	\$61.9	\$57.8
<b>High Response, Low Revenue Case</b>					
Cigarettes	\$51.5	\$94.1	\$93.0	\$91.9	\$90.7
Loose or Smokeless Tobacco	-\$2.3	-\$4.9	-\$5.3	-\$5.7	-\$6.1
Large Cigars	-\$12.5	-\$25.9	-\$27.9	-\$30.0	-\$32.2
Little Cigars	\$0.1	\$0.3	\$0.3	\$0.3	\$0.3
Total	\$36.8	\$63.6	\$60.2	\$56.6	\$52.8

**Table 4. High and Low Projected Sales Tax Revenue Gains Under LC 44 0987**

<i>(\$ millions)</i>	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Low Response, High Revenue Case	\$0.17	\$0.27	\$0.20	\$0.12	\$0.04
High Response, Low Revenue Case	\$0.20	-\$1.10	-\$1.11	-\$1.13	-\$1.16

### **Modified Tobacco Risk Products**

A modified risk tobacco product (MRTP) is a tobacco product approved by HHS for the right to label and market the product as reducing the risk of tobacco-related disease associated with commercially marketed tobacco products. To date, no products have been approved as MRTPs, but two product lines are the subjects of pending applications.

The first is a “heat-not-burn” style tobacco product developed by Philip Morris, similar to existing vapor cigarettes except that it includes tobacco. Like vapor products, it would apparently not meet the definition of any currently-taxed tobacco product. Under the proposed bill, it would apparently meet the definition of an “alternative nicotine product”, but the bill does not propose to tax these products. For this reason, no revenue impact is expected related to this product category.

Two pending MRTP applications are for product lines of “Snus” made by R.J. Reynolds (RJR) and Swedish Match North America Inc. Snus products are moist powder tobacco pouches that are currently taxable as a smokeless tobacco product under Georgia law. There is one pending MRTP application for the Copenhagen Snuff Fine Cut moist snuff from the U.S. Smokeless Tobacco Company. Moist snuff is also currently taxable as loose and or smokeless tobacco.

LC 44 0987 proposes an eight percent tax rate on the wholesale cost price of loose or smokeless tobacco and MRTPs. All snus and snuff products currently under review as potential MRTP’s would already be taxed at the same rate under LC 44 0987 regardless of the result of their current application. The revenue effect of this portion of the bill is therefore estimated to be zero at this time.

### **Tax on Consumable Vapor Products**

The Federal Drug Administration (FDA) defines the group of products that deliver nicotine through the vaporization of nicotine solution as Electronic Nicotine Delivery systems (ENDS). They are sold in three broad forms, disposable e-cigarettes, rechargeable e-cigarettes, and vaporizers. According to FDA all use liquid containing nicotine that is heated into an aerosol that the user inhales.

According to a study recently released by the Centers for Disease Control (CDC), 405 thousand rechargeable e-cigarettes, 452 thousand disposable e-cigarettes, one million five-packs of prefilled cartridges of e-liquid, and 111 thousand bottles of e-liquid solution were consumed in Georgia in 2016. Reliable data on the amount of nicotine solution that this consumption represents could not be found.

To date, three southeastern states have considered or passed a five cent per milliliter excise tax on nicotine solution. Louisiana and North Carolina have passed such legislation while South Carolina has only proposed the law. Because of the short time since the passage of these new taxes, data on revenues collected in Louisiana were yet available. However, the tax raised \$2.98 million dollars in North Carolina in FY 2016 after taking effect late in FY 2015. According to the CDC study, Georgia consumption of ENDS exceeded that of North Carolina by approximately ten percent in 2016.

The sale of e-cigarettes and other vapor products grew as fast as 21 percent annually when first widely available. According to Neilson Market Research, this growth might have slowed in recent years and the market could even be contracting. On the other hand, BIS Research and other another market research firms believe the US market for these products will continue to grow at over 20 percent per year.

- Based on the experience of North Carolina in 2016 and the CDC data, the estimates assumes that between 62.6 and 68.6 million milliliters of nicotine solution was consumed in Georgia in 2016.
- Based on the prevailing market research, it is assumed that growth in milliliters consumed in Georgia will be between five and ten percent annually between 2016 and 2024.

**Table 5. High and Low Projected Revenue Gains from Consumable Vapor Products**

<i>(millions)</i>	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
<b>Milliliters of Consumable Vapor Products Consumed</b>					
High Base and High growth Estimate	100.4	110.5	121.5	133.7	147.0
Low Base and Low growth Estimate	76.1	79.9	83.9	88.1	92.5
<b>Revenue Gains from Consumable Vapor Products</b>					
High Base and High growth Estimate	\$5.0	\$5.5	\$6.1	\$6.7	\$7.4
Low Base and Low growth Estimate	\$3.8	\$4.0	\$4.2	\$4.4	\$4.6