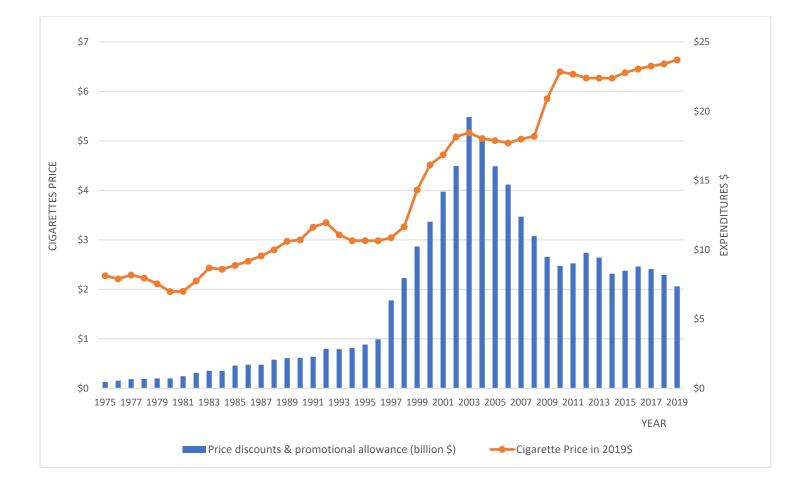
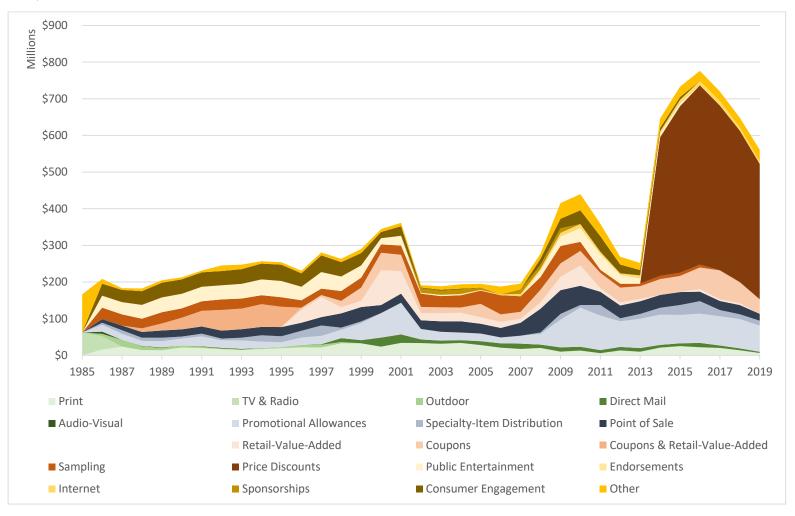


Supplement 1. Figure 1. U.S. Cigarette Pack Sales vs. Price & Promotion Expenditures (\$) in 2019 Billion \$, 2003-2019



Supplement 1. Figure 2. Total Price Discounts and Promotional Allowance Expenditures in Billion 2019\$ vs. Cigarette Taxes in 2019\$, 1975-2019



Supplement Figure 3. Share of Inflation-Adjusted US Smokeless Marketing Expenditure (Federal Trade Commission, 1985-2019)

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Supplement 2. Definitions of Marketing Expenditure Components from the FTC Cigarette Report

Advertising and Promotional Expenditure Categories Newspapers: Newspaper advertising, but excluding expenditures in connection with sampling, consumer engagement, specialty item distribution, public entertainment, endorsements, sponsorships, coupons, and retail-value-added.

Magazines: Magazine advertising, but excluding expenditures in connection with sampling, consumer engagement, specialty item distribution, public entertainment, endorsements, sponsorships, coupons, and retail-value-added.

Outdoor: Billboards, including signs and placards in arenas, stadiums, and shopping malls (whether open-air or enclosed) and any other advertisements placed outdoors, (regardless of their size, including those on cigarette retailer property). Excluded are expenditures in connection with sampling, consumer engagement, specialty item distribution, public entertainment, endorsements, sponsorships, coupons, and retail-value-added.

Point-of-Sale: Point-of-sale advertisements (i.e., materials displayed or distributed at a retail location), but excluding expenditures in connection with outdoor advertising, sampling, consumer engagement, specialty item distribution, public entertainment, endorsements, sponsorships, coupons, and retail-value-added.

Direct Mail: Direct-mail advertising, but excluding expenditures in connection with sampling, consumer engagement, specialty item distribution, public entertainment, endorsements, sponsorships, coupons, retail value-added, and Internet advertising not on a company website.

Price Discounts – Retailers: Price discounts paid to cigarette retailers to reduce the price of cigarettes to consumers, including off-invoice discounts, buy-downs, voluntary price reductions, and trade programs. Excluded are retail value-added expenditures for promotions involving free cigarettes and expenditures involving coupons.

Price Discounts – Wholesalers: Price discounts paid to cigarette wholesalers to reduce the price of cigarettes to consumers, including off-invoice discounts, buy-downs, voluntary price reductions, and trade programs. Excluded are retail-value-added expenditures for promotions involving free cigarettes and expenditures involving coupons.

Promotional Allowances – Retailers: Promotional allowances paid to cigarette retailers to facilitate the sale or placement of any cigarette (including payments for stocking, shelving, displaying, and merchandising brands; volume rebates; incentive payments) and the cost of cigarettes given to retailers for free for subsequent sale to consumers. Excluded are expenditures in connection with newspapers, magazines, outdoor, audio-visual, direct mail, point-of-sale, and price discounts.

Promotional Allowances – Wholesalers: Promotional allowances paid to cigarette wholesalers to facilitate the sale or placement of any cigarette, including payments for volume rebates, incentive payments, value-added services, promotional execution, and satisfaction of reporting

requirements. Excluded are expenditures in connection with newspapers, magazines, outdoor, audio-visual, direct mail, point-of-sale, price discounts, and retail promotional allowances.

Promotional Allowances – Other: Promotional allowances paid to any persons other than retailers, wholesalers, and full-time company employees who are involved in the cigarette distribution and sales process to facilitate the sale or placement of any cigarette. Excluded are expenditures in connection with newspapers, magazines, outdoor, audio-visual, direct mail, point-of-sale, price discounts, and retail and wholesale promotional allowances.

Sampling: Sampling of cigarettes, including the cost of the cigarettes, all associated excise taxes and increased costs under the Master Settlement Agreement, and the cost of organizing, promoting, and conducting sampling. Sampling includes the distribution of cigarettes for consumer testing or evaluation when consumers can smoke the cigarettes outside of a facility operated by the company, but not the cost of actual clinical testing or market research associated with such cigarette distributions. Sampling also includes the distribution of coupons for free cigarettes, when no purchase or payment is required to obtain the coupons or cigarettes.

Specialty Item Distribution – Non-Branded: All costs of distributing any items (other than cigarettes, items the sole function of which is to advertise or promote cigarettes, or written or electronic publications), whether distributed by sale, the redemption of coupons, or otherwise, that do not bear the name, logo, or an image of any portion of the package of any brand or variety of cigarette, including the cost of the items distributed but subtracting any payments received for the item. The costs associated with distributing non-cigarette items in connection with sampling or retail-value-added programs are reported in those categories, not as specialty item distribution.

Consumer Engagement – Retail: All costs of consumer engagement at cigarette retail locations open to underage individuals, including any third-party agency fees, but excluding the cost of coupons distributed in the course of consumer engagement activities.

Consumer Engagement – Adult-Only: All costs of consumer engagement of smokers in adultonly facilities, including any third-party agency fees, but excluding the cost of coupons distributed in the course of consumer engagement activities.

Public Entertainment – Adult-Only: Public entertainment events bearing or otherwise displaying the name or logo or an image of any portion of the package of any of a company's cigarettes or otherwise referring or relating to cigarettes, which take place in an adult-only facility, including all expenditures made by the company in promoting and/or sponsoring such events. Excluded are expenditures in connection with adult-only consumer engagement. Such events must include entertainment, as opposed to simply consumer engagement.

Public Entertainment – General-Audience: Public entertainment events bearing or otherwise displaying the name or logo or an image of any portion of the package of any of a company's cigarettes or otherwise referring or relating to cigarettes which do not take place in an adult-only facility, including all expenditures made by the company in promoting and/or sponsoring such events. Such events must include entertainment, as opposed to simply consumer engagement.

Sponsorships: Sponsorships of sports teams or individual athletes, but excluding endorsements. Endorsements & Testimonials: Endorsements, testimonials, and product placement.

Coupons: All costs associated with coupons for the reduction of the retail cost of cigarettes, regardless of how they are distributed or redeemed, including all costs associated with advertising or promotion, design, printing, distribution, and redemption. However, when coupons are distributed for free cigarettes and no purchase or payment is required to obtain the coupons or the cigarettes, these activities are considered to be sampling and not couponing.

Retail-Value-Added – Bonus Cigarettes: Retail-value-added expenditures for promotions involving free cigarettes (e.g., buy two packs, get one free), whether or not the free cigarettes are physically bundled together with the purchased cigarettes, including all expenditures and costs associated with the value-added to the purchase of cigarettes (e.g., excise taxes paid for the free cigarettes and increased costs under the Master Settlement Agreement).

Retail-Value-Added – Non-Cigarette Bonus: Retail-value-added expenditures for promotions involving free or discounted non-cigarette products (e.g., buy two, get a cigarette lighter or buy two, save 20 cents per gallon of gasoline), including all expenditures and costs associated with the value-added to the purchase of cigarettes.

Company Website: All expenditures associated with advertising on any company Internet website that can be accessed by computers located in the United States.

Internet – Other: Internet advertising other than on the company's Internet website, including on the World Wide Web, on commercial online services, and through electronic mail messages. Excluded are costs associated with social media marketing.

Telephone: Telephone advertising, including costs associated with the placement of telemarketing calls or the operation of incoming telephone lines that allow consumers to participate in any promotion or hear pre-recorded product messages. Excluded are costs associated with having customer service representatives available for responding to consumer complaints or questions.

Social Media Marketing: All expenditures for social media marketing on websites or other online services or communities, including but not limited to social networking sites, microblogging sites, content-sharing sites, and blogs. Audio-visual: Audio-visual or video advertising on any medium of electronic communication not subject to the Federal Communications Commission's jurisdiction, including screens at motion picture theaters, video cassettes or DVDs, and television screens or monitors in stores; but excluding expenditures in connection with Internet advertising.

Other: Advertising and promotional expenditures not covered by another category. To the extent that third-party agency fees relating to cigarette advertising, merchandising, or promotion cannot be divided based on the materials to which they relate, they should be reported in this category.

Sports and Sporting Events: All advertising and promotional expenditures connected with or related to sports or sporting events, including, but not limited to: (i) the sponsoring, advertising, or promotion of sports or sporting events, the support of an individual, group, or sports team, and

purchase of or support for sports equipment, uniforms, sports facilities and/or training facilities; (ii) all expenditures for advertising in the name of the company or any of its cigarette brands in a sports facility, on a scoreboard or in conjunction with the reporting of sports results; (iii) all expenditures connected with functional promotional items (e.g., hats or posters) provided at or in connection with a sporting event; and (iv) all expenditures associated with cigarette sampling or consumer engagement in connection with a sporting event, including sampling or consumer engagement in an adult-only facility in the grounds or parking lot of a sports facility. "Sports and sporting events" includes, but is not limited to, football, basketball, baseball, hockey, tennis, wrestling, karate, judo, weight lifting, volleyball, skiing, skating, sailing, boating, equestrian, rodeo, automobile, race car, funny car, motorcycle, bicycle, truck, monster truck, tractor-pull, fishing, and hunting events, competitions, tournaments, and races. This category is duplicative of expenditures for other categories.