Undermining Government Tax Policies: Common strategies employed by the tobacco industry in response to tobacco tax increases

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Abstract

Introduction: Effective tobacco tax increases reduce tobacco consumption, threatening the profitability of the tobacco industry. In response, the tobacco industry employs strategies to negate or minimize the full effects of tobacco tax increases. Knowledge of these strategies can assist governments in setting effective policies to collect the full amount of tax revenue and to curb tobacco use.

Methods: Country level data on excise tax rates and revenue, retail prices, volume of cigarette removals and sales were obtained from governments and statistical offices, non-governmental organizations and academic departments.

Results: Seven common strategies are identified: stockpiling, changing product attributes or production processes, lowering prices, over-shifting prices, under-shifting prices, timing of price increases, and engaging in price discrimination and/or offering promotions. Each strategy is described in terms of the motivation for their employment, the consequences for tobacco use and tax revenue, and measures to counter them. County case studies illustrate the successful execution of the strategies and possible government responses.

Conclusion: The tobacco industry, left unchecked, employs strategies that reduce the impact of tobacco tax increases on its profit, undermining tobacco control efforts and government revenue. Many of the Tobacco industry’s responses to tobacco tax increases are predictable, since they are being employed systematically across countries. Governments can and should adopt appropriate measures to eliminate or reduce tobacco industry manipulation. This requires systematic data collection in order to monitor tobacco industry behavior.

Keywords: Tobacco industry, tobacco prices, tobacco taxes
Introduction

A substantial body of literature conclusively shows an inverse relationship between tobacco prices and tobacco consumption. (1) Raising the price of tobacco products by increasing taxes is one of the most effective measures to reduce tobacco use - it induces current smokers to quit, reduces consumption of continuing smokers, and reduces initiation by potential smokers. The WHO Framework Convention on Tobacco Control (FCTC) (2) obligates Parties to the Treaty to implement tax and price measures to reduce the demand for tobacco. Since tobacco tax increases generally decrease the tobacco industry’s profitability, the tobacco industry has developed numerous strategies to mitigate the impact of tax increases, and even to use tax changes to its advantage. These strategies vary across jurisdictions and depend primarily on the particular circumstances of the local tobacco market, including the structure of the tobacco tax system and the maturity of the market. However, the industry’s responses are largely predictable, particularly since a few large companies dominate the global tobacco market. In 2014, five companies collectively controlled 83% of the global tobacco market. (3) This paper describes strategies employed by tobacco companies to undermine the anticipated effects of strong tobacco tax policy.

Methods

Country level data on excise tax rates and revenue, retail prices, volume of cigarette removals and sales were obtained from governments and statistical offices, non-governmental organizations and academic departments. We focused on legal behavior of the industry in response to approved tax increases. Tobacco industry messaging related to a tax increase, its efforts to prevent a tax increase and the illegal means it employs to mitigate the impact of a tax increase are subject to a different study.

We identified seven strategies commonly employed by the industry to legally reduce its tax liability based on their common features and impact. We describe the motivation behind each strategy and explain its impact on the industry, tobacco use and tax revenue. Based on countries' experience, we propose measures that governments can take to counter these industry actions, demonstrated with case studies.
Results

One of the most common strategies is stockpiling (forestalling/front-loading), which occurs when tobacco companies over-supply their products to the market before a tax increase takes effect to pay the pre-tax-increase rate, resulting in higher sales prior to a tax increase and decreased sales following the tax increase as the market absorbs the oversupply. Stockpiling artificially increases government tax revenues immediately before the tax increase, and reduces revenue immediately after, which is short-lived (about one to three months). Stockpiling delays the impact of the increased tax on tobacco use if the products with lower tax are sold at a lower price. If the industry and/or retailers adjust prices immediately after the tax increase, the impact of the higher tax on consumption will be immediate, but the industry/retailers will be making extra profit at the government’s expense. The industry may attribute the decrease in official sales and revenue immediately after the tax increase to higher illicit trade.

Data from the Philippines (4)(Figure 1) demonstrates the case of stockpiling. The volume of cigarette removals increases substantially in anticipation of tax increases and decreases as the industry reduces its supply to the market as it waits for the lower-taxed cigarettes to be sold, resulting in inflated tax revenue before the tax increase and an immediate drop in tax revenue after the tax increase.

*Figure 1: Volume of cigarette removals in Philippines (domestic production)*

![Graph showing volume of cigarette removals in Philippines](image-url)
In jurisdictions with tax stamps on tobacco products, governments can prevent the industry from stockpiling by banning sales of products with old tax stamps or by regulating how quickly the old stock needs to be sold. In Poland, for example, stamps are only valid for one year. (5) Governments can limit the quantity of tax stamps or products the industry can release to the market in the months prior to a tax increase, using past trends in sales to forecast market demand. In some countries, wholesalers are responsible for paying the difference between the old and the new tax rate – so called floor tax. (5)

Different tax rates on different tobacco products could motivate the industry to change the attributes of its products or their production processes in response to a tax increase if taxes are increased on some products more than others. By changing the products’ attributes, the tobacco industry reclassifies products to categories with a lower tax rate. This involves changing the products' physical attributes (e.g., weight or length), or production method. Since some products’ tax liability is reduced, the tax increase is not as effective in reducing tobacco use as anticipated. For example, Indonesia’s complex tax system favored smaller scale producers by subjecting them to smaller tax increases, which motivated tobacco companies to separate their operations into smaller scale facilities. (6) In April 2009, the US federal government increased excise taxes on all tobacco products, but the amount of the increase varied by products, favoring pipe tobacco over roll-your-own (RYO) tobacco. The industry responded by relabeling RYO as pipe tobacco to reduce its tax liability, resulting in a 75% decrease in RYO sales while sales of pipe tobacco quadrupled within four months after the tax increase (Figure 2).
An effective strategy to prevent the industry from changing products attributes is to simplify the tax code. Guidelines for implementation of Article 6 of the WHO FCTC (7) (hereafter “the Guidelines”) recommends employing a uniform tax structure, i.e. imposing the comparable tax rate on all tobacco products regardless of their characteristics, prices or production process, with no exceptions. This minimizes the tax rate gap between different types of products, discouraging product substitution. Complex tax structures require specific policies to prevent the industry from taking advantage of the tax system.

In some cases, the industry lowers prices of some or all of their products to reduce tax payment and/or to meet sales targets. In an ad valorem tax regime, lower prices reduce the impact of higher tax rates, since the base for calculating the tax liability is reduced. Lower prices reduce the profit margins, but the overall profit might not decline if lower prices increase sales. If tax rates differ by price categories (bands or tiers), the industry may lower prices on some brands
to fall into a lower tax-rate category. Reducing the price of selective brands may also retain price sensitive customers, minimizing the impact of a tax increase on sales. In systems where the amount of tax is independent of retail prices, e.g. tax liability depends on ex-factory price, producers/importers can conspire with distributors and collect a portion of the distributors' margin while keeping the value that determines the tax liability artificially low. The same goal can be achieved via internal pricing if the producer also controls the distribution. Lowering prices decreases government's revenues and limits the impact of the tax increase on tobacco use. The size of impact depends on the market share of products subject to the price cuts and the overall pricing strategy of the industry after the tax increase.

A price reduction strategy was recently employed in Senegal where the higher-priced premium brands were charged higher ad-valorem tax than the lower-priced economy brands. In late 2011 the government announced a tax increase from 40% to 45% and from 20% to 40% of retail price on premium and economy brands, respectively, effective January 2012. In December 2011 Philip Morris International (PMI) reduced the price of Marlboro from US$1.20 to US$0.79 per pack to reclassify Marlboro from premium to economy with a rate of 40%, thereby completely avoiding the tax increase. (8)

The industry's use of this strategy is severely limited if the tax system relies primarily on specific as opposed to ad valorem tax. A uniform tax structure will prevent tobacco companies from lowering prices with the intention of changing to a lower tax rate tier. Government facing a complex tax system may need to set a minimum specific tax floor to guarantee a minimum amount of tax is collected on each pack.

The industry can over-shift the tax increase and increase its prices by an amount larger than needed to cover the new tax. This increases profit margins and compensates the industry for any reduction in sales resulting from higher prices. Since tobacco companies focus on their market share, this strategy is primarily observed in markets dominated by a single company and in highly concentrated mature markets. The industry might only over-shift taxes on some, usually higher priced brands, because these consumers are less price-sensitive. By increasing prices simultaneously with a tax increase the industry can blame the government's tax policy for higher prices and potentially reduce public support for further tax increases, even though the final prices are to a large extent the result of the industry's pricing policy.

An example of over-shifting was evident in South Africa. From 1994 to 2010 the real (inflation-
adjusted) tax increased by 377%. At the same time, the net-of-tax price (the part of the retail price under the control of the tobacco industry) increased by 173%. The industry increased its overall profitability by increasing the profit per cigarette, despite the fact that quantity of cigarettes sold were falling.

Although over-shifting can produce a positive outcome from a public health perspective since it suppresses demand, it also results in increased profits for the tobacco industry and in lower than expected tax revenue. It is an indication that the market can absorb higher prices, and higher taxes. Continuing to increase taxes may eventually limit the industry’s ability to over-shift. Countries can also tax excess profit, which would reduce incentives for over-shifting and further increase tax revenue. However, an excess profit tax does not have the same public health outcome as an excise tax, can be more easily avoided, and adds complexity to the system.

**Under-shifting tax increases** whereby prices are increased by less than the tax hike is another possibility for the industry to reduce the impact of the tax policy on sales. This response is usually temporary as under-shifting lowers industry profit at the expense of preserving sales. The tobacco industry may not under-shift the tax across all products but rather on low and super-low price brands to accommodate price-sensitive consumers. Under-shifting reduces the public health impact of tax increases, since lower than expected prices result in higher than expected demand, particularly if the industry engages in targeted under-shifting for price-sensitive customers such as youth. On the other hand, the excise tax revenue will be higher than expected due to larger than expected sales.

Tobacco industry behavior in Ukraine is a good example of both under-shifting and over-shifting. Between 2007 and 2010, Ukraine increased tobacco taxes seven times. Initially, tax increases were small and the tobacco industry kept prices relatively stable by absorbing the increase. Between January 2007 and January 2008, the real, inflation-adjusted cigarette excise tax rose by 6%, yet real cigarette prices fell by 11%.(9) After more significant tax increases in 2009, the tobacco industry began to over-shift: from January 2009 to December 2010, the real industry prices (exclusive of tax) increased by 39%. Persistent tax increases eventually limited the industry’s ability to under-shift prices. Setting a minimum tax floor prevents the industry from under-shifting, because it guarantees that a minimum amount of tax is collected on each pack.
**Timing of the price change** is another common way for the industry to deal with a tax increase. The price can change at the same time, or sometimes before or after a tax increase. Preemptive or delayed price increases are usually less than the overall price change to sensitize customers to new, higher prices. If prices are increased before the tax is increased, the industry collects extra profit, but consumption and the tax revenue drop. The temporary revenue loss will be reversed once the new tax goes into effect. However, the impact of the tax increase on consumption will be reduced since the demand has already responded to new prices before the tax increase went into effect. The industry may exploit this fact by claiming that the tax increase only affected tax revenue, but not the demand for its products, and therefore that it is a failure from the public health perspective. Delaying a price increase until after a tax change will result in temporarily higher than expected tax revenue and no initial change in consumption. Once the industry increases its prices, consumption and tax revenue decrease since tax revenue was artificially high immediately after the tax increase, since the industry sacrificed a part of its potential profit by keeping its prices unchanged for some time. Gradual price increases may result in an overall smaller decrease in tobacco demand compared to a situation when prices are increased in one step. On the other hand, tax revenue will be higher than expected due to higher than expected sales. Strategic timing of a price increase is observed in the US. In February 2009, the US government approved a federal cigarette excise tax increase from US$ 0.39 to US$ 1.01 per pack effective April 1, 2009. In anticipation of the tax increase, major cigarette producers raised prices one month before the new tax went into effect. Philip Morris raised prices of both Marlboro and its less known brands by US$ 0.71 and US$ 0.81 cents a pack in early March 2009, respectively, thus over-shifting the tax increase of US$ 0.62. Other major companies followed suit.(10)

It is important to monitor tobacco product prices and brand proliferation (e.g. the launch of cheap brands) before and after tax changes in order to assess industry strategies. This will assist with the interpretation of sales and revenue data as they become available, and with the response to industry misinformation about the market response to higher taxes.

**Price discrimination and/or price-related promotional activity** occur when the same product is sold at different prices to different customers to prevent price-sensitive tobacco users from quitting or reducing their daily consumption and to make sure that potential new customers are not deterred by high prices. Price-related promotions lower the price or otherwise add
value to its products for price sensitive consumers by offering discount coupons, samples, gifts with purchase, or by employing differential pricing by geographic location or store type (e.g., retailer rebates). Since consumers in lower income groups are more price sensitive, and more likely to take advantage of these price promotions, this industry behavior disproportionally impacts the poor by reducing the positive impact of tax increases on tobacco use. Under a specific tax regime price discrimination will lead to higher than expected tax revenue due to higher sales. The revenue impact under mixed or ad valorem regimes will depend on the market share of different price segments.

Before a 159% increase of federal tobacco excise tax in the US in April 2009, Philip Morris USA e-mailed its customers inviting them to register on its website to become eligible for promotional coupons to buy cigarettes below the retail price. These types of coupons are specifically targeted at women, youth and price-sensitive consumers.

The UK tobacco industry responded to annual tax increases by launching a new ultra-low price (ULP) cigarette category in 2006. Since its market introduction, real prices of ULP cigarettes were kept constant, because the industry shielded them from the impact of tax increases by under-shifting prices on ULP products while over-shifting them on the higher price segments. The price gap between the cheapest and most expensive cigarettes widened as price-sensitive smokers down-traded to cheaper cigarettes - the market share of ULP cigarettes doubled from 10% in 2006 to 20% in 2009. The industry price strategy diminished the public health benefit of higher taxes and contributed to persistent smoking-related inequalities in the UK. (11, 12)

Setting a minimum tax floor, banning price-related promotional activity and discounts will prevent (or at least restrict) the industry from engaging in price discrimination.

### Discussion

The tobacco industry is aware that price increases result in lower initiation rates, reduced consumption among continuing smokers, and more people quitting the habit. To avoid losing customers, the tobacco industry has developed numerous strategies to reduce the impact of tax increases on its revenue. The seven strategies discussed in this paper present the most common ones. They are employed selectively across jurisdictions reflecting the local tax structure and/or the maturity of the market. However, the industry’s responses are largely predictable, given the profit motivation and the concentration of the global tobacco market.
Strategies are often combined to minimize the impact of a tax increase. For example, the industry can over-shift prices on premium products and under-shifting on lower priced products to cater for more price sensitive consumers as seen in the UK. This segments the market and reduces the overall impact on tobacco demand since those who would have otherwise quit may just switch to cheaper products.

Governments have the power to regulate the industry and prevent tax avoidance. To develop an effective tax administration, governments should monitor industry behavior by collecting data or requiring the industry to report data. Data should include: sales/removals from warehouses by brand and/or price categories, tax revenue by brand and/or price categories, changes in tobacco product prices by product categories and brands, price-related promotions, changes in products’ characteristics, introduction of new products/brands, and total promotional expenditures by product categories. Timely data analyses will allow authorities to respond quickly and effectively to tax avoidance schemes which will enhance tax collection and improve public health by increasing the effectiveness of tobacco excise taxes. The prospect of higher tax revenue justifies data collection and tax administration expenses.

Article 6 of the WHO’s FCTC obligates Parties to the Treaty (currently 180 countries) to implement tax and price measures to reduce the demand for tobacco. In October 2014, at the 6th Conference of the Parties, Guidelines for implementation of Article 6 of the WHO FCTC were adopted which state that: “Efficient and effective administration of tobacco tax systems enhances tax compliance and collection of tax revenues while reducing tax evasion and the risk of illicit trade”.(7) Governments should implement these policies, while at the same time monitoring industry strategies that undermine obligations of the FCTC parties.

**Limitations**

There may be additional strategies that we did not identify. Even the implementation of the Guidelines will not prevent all industry tax avoidance and governments will need to design tailor-made policies relevant for their particular situations.
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The Southern Africa Labour and Development Research Unit (SALDRU) conducts research directed at improving the well-being of South Africa’s poor. It was established in 1975. Over the next two decades the unit’s research played a central role in documenting the human costs of apartheid. Key projects from this period included the Farm Labour Conference (1976), the Economics of Health Care Conference (1978), and the Second Carnegie Enquiry into Poverty and Development in South Africa (1983-86). At the urging of the African National Congress, from 1992-1994 SALDRU and the World Bank coordinated the Project for Statistics on Living Standards and Development (PSLSD). This project provide baseline data for the implementation of post-apartheid socio-economic policies through South Africa’s first non-racial national sample survey.

In the post-apartheid period, SALDRU has continued to gather data and conduct research directed at informing and assessing anti-poverty policy. In line with its historical contribution, SALDRU’s researchers continue to conduct research detailing changing patterns of well-being in South Africa and assessing the impact of government policy on the poor. Current research work falls into the following research themes: post-apartheid poverty; employment and migration dynamics; family support structures in an era of rapid social change; public works and public infrastructure programmes, financial strategies of the poor; common property resources and the poor. Key survey projects include the Langeberg Integrated Family Survey (1999), the Khayelitsha/Mitchell’s Plain Survey (2000), the ongoing Cape Area Panel Study (2001-) and the Financial Diaries Project.