

# Undermining Government Tax Policies

Common strategies employed by the tobacco industry in response to tobacco tax increases

Stockpiling

Changing the attributes of tobacco products or their production processes

Lowering prices

Over-shifting or increasing prices more than a tax increase

Under-shifting

Timing of price increase

Price discrimination/price-related promotional activity



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Economic Research Informing Tobacco Control Policy

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The Economics of Tobacco Control Project is hosted by the South African Labour and Development Research Unit at the School of Economics, University of Cape Town in partnership with the American Cancer Society, the Bill & Melinda Gates Foundation and the African Capacity Building Foundation. The aim of this project is to expand current research efforts in the economics of tobacco control and to enhance the knowledge of economic and tax issues among tobacco control advocates and policymakers to strengthen support for tobacco tax and price increases in sub-Saharan Africa.

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**Acknowledgements:** The authors would like to thank the following individuals for their assistance in reviewing drafts of this document: Johanna Birckmayer, PhD, MPH, Claudia Oakeshott, LLM, Frank Chaloupka, PhD, Noila Sorenson, MPA, and Evan Bletcher, PhD.

Suggested citation: Ross H and Tesche J (2015). Undermining Government Tax Policies: Common strategies employed by the tobacco industry in response to increases in tobacco taxes. Prepared for the Economics of Tobacco Control Project, School of Economics, University of Cape Town and Tobacconomics, Health Policy Center, Institute for Health Research and Policy, University of Illinois at Chicago.

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Design by Parrilla Design Workshop

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# Executive Summary

The WHO Framework Convention on Tobacco Control obligates Parties to the Treaty to implement tax and price measures to reduce the demand for tobacco. In addition to reducing demand, effective tobacco tax increases can also increase government revenue. However, because effective tobacco taxes threaten the profitability of tobacco products for the companies that produce them, the tobacco industry employs strategies to negate or minimize the full effects of tobacco tax increases.

The subject of this report is tobacco industry strategies to avoid the impact of planned tobacco tax increases on industry profits. Intended for government officials and staff charged with developing and administering government tax policy, it describes seven strategies often employed by tobacco companies to undermine the anticipated effects of strong tobacco tax policy: stockpiling, changing product attributes or production processes, lowering prices, over-shifting of prices, under-shifting prices, timing of price increases advantageously, and engaging in price discrimination and/or offering promotions. The discussion on each strategy addresses the motivation for tobacco companies to engage in such strategies, the consequences of the strategy for governments and companies, and measures that governments can take to counter tobacco industry actions to undermine tobacco tax increases. Each strategy is illustrated with one or more country case studies.

The report concludes with a section on the type of data governments should collect in order to monitor tobacco industry actions in response to planned tobacco tax increases and formulate effective responses.

# Introduction

Raising the price of tobacco by increasing tobacco taxes is one of the most effective measures to reduce tobacco use. The WHO Framework Convention on Tobacco Control obligates Parties to the Treaty to implement tax and price measures to reduce the demand for tobacco

Since tobacco tax increases have the potential to impact the tobacco industry's profitability, the industry has developed numerous strategies to mitigate their impact, 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 given that the global tobacco market is dominated by a few large companies.<sup>i</sup>

This document describes common strategies employed by the tobacco industry in response to tobacco tax increases and explains the industry's motivations for adopting these strategies. For each strategy, case study examples are provided. Possible counter-measures to mitigate the impact of industry's reaction are also suggested.

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<sup>i</sup> In 2011, five companies collectively controlled 81% of the global tobacco market: Philip Morris International, British American Tobacco, Imperial Tobacco, Japan Tobacco International and the state-owned China Tobacco Company (Tobacco Atlas, 2013).

## STRATEGY 1

# Stockpiling

### Definition

Stockpiling (also referred to as forestalling and front-loading) occurs when tobacco companies over-supply their products to the market before a tax increase takes effect. In most jurisdictions, excise taxes are paid when products are released for sale from the factory or warehouse to the first link in the distribution channel, and not at the point of retail sale. In the case of imported products, customs duties are due at the time of import clearance. When a tax increase is scheduled to take place on a specific date, tobacco companies take advantage of this time gap between the release of products for distribution (and taxes paid) and the actual purchase of products by releasing larger than normal amounts of products from the factory (in order to pay the pre-tax-increase tax rate). As result, the market is oversupplied with products taxed at the previous lower tax rate when the new, higher tax comes into effect. With this strategy, the industry may encourage its customers to stockpile cigarettes before a tax increase, thus driving up retail sales before the new tax goes into effect.

### Motivation

By over-supplying product ahead of a tax increase, the tobacco industry is able to delay paying the new, higher tax until the overstock is cleared. This saves the industry the difference between the new and the old tax once the new tax rate is in place. The industry can pass on the savings to consumers and keep selling the cigarettes with the lower tax rates in order to prevent the tax increase from affecting sales for a limited period of time. Alternatively, the industry can adjust its prices immediately to reflect the new, higher tax rate, but distribute stockpiled cigarettes on which lower tax rates were paid. This temporarily increases the industry's per pack profit until the supply the lower tax cigarettes is depleted. The longer in advance a tax increase is known, the more time the industry has to produce and distribute extra cigarettes, either at lower prices based on the old tax rate or at higher prices based on the new tax rate. The only limitation on the industry is the shelf life of its products and its production capacity.

### Implications

When stockpiling occurs prior to a tax increase, official sales (which are recorded when excise taxes are paid) increase during the period prior to a tax increase and drop following the tax increase as the market absorbs the over-supply. Stockpiling reduces government tax revenues immediately after a tax increase, but this impact is only short-term (usually lasting three to four months). Since the oversupply will eventually be absorbed by the market, the industry will begin to pay the new higher tax rate on the products released for distribution, and sales and tax revenues will reach a new equilibrium level reflecting the real impact of the tax increase on demand.

Stockpiling can delay the impact of the increased tax on tobacco use if the products with lower tax are sold at a lower price while the over-stock remains on the market. If the industry and/or retailers decide to adjust the prices immediately after the tax increase, the impact of the higher tax on consumption will not be delayed while the industry/retailers will be making extra profit. Even though the tobacco industry is the cause of the drop in official sales and tax revenue after a tax increase in the case of stockpiling, the industry may use the decrease in official sales and revenue to claim that the tax increase is causing an increase in illicit trade and the reduction in legitimate sales and government revenue.

### What can be done?

Governments should monitor tobacco sales and tax revenues before and after a tax increase in order to determine whether the industry engages in stockpiling before a tax increase, correctly identify reasons for any changes in sales and/or tax revenue, and prepare counter-responses. In Philippines, for example, the Bureau of Internal Revenue was aware of stockpiling before the higher tax came into effect in January 2013.<sup>3</sup>

In jurisdictions with tax stamps on tobacco products, governments can prevent the industry from stockpiling by banning sales of products with old tax stamps following a tax increase or by regulating how quickly the old stock needs to be sold. In Poland, for example, stamps are only valid for the current calendar year, and up to the last day of February in the next year.<sup>4</sup> Wholesalers in Hungary must sell cigarettes within 15 days following the implementation of a new tax rate.<sup>4</sup>

Governments can also 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 the market demand.

If tobacco companies in Denmark (where any tax increase always take place January 1) buy 20% more tax stamps than they usually purchase during the period of 31 October and 31 December, the purchase above the 20% is considered a January purchase of the following year.<sup>4</sup> In the UK, companies face a limit on the total quantity of cigarettes that they can release for consumption between 1 January and Budget Day (i.e., the date on which changes to excise duties are announced).<sup>4</sup>

In some countries, wholesalers are responsible for paying the difference between the old and the new tax rate. In Latvia and Slovenia, an inventory is taken at the time of tax increase and the companies must pay the government the total tax difference.<sup>4</sup> In numerous states in the US, those who have a stock of tobacco products (i.e., wholesale and retail dealers, manufacturers, importers) are subject to a floor stocks tax. Floor stock tax is a one-time excise tax placed on a commodity undergoing a tax increase. The amount of the floor stocks tax is equal to the difference between the new tax rate and the immediately prior tax rate.<sup>5</sup>

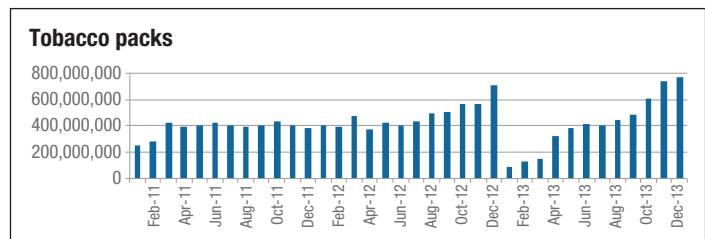
## Case studies: Stockpiling

### Philippines

In 2013 the Philippines adopted a new excise tax regime, which substantially increases taxes each year for the next six years while also reducing the four-tiered specific tax system to a single tier by 2017.<sup>1</sup>

The industry closely monitored the development of the new tax legislation. In anticipation of a tax increase, the industry began to frontload a substantial amount of cigarettes to the market (see *Figure 1*) evident by the amount of cigarettes removed from warehouses for retail distribution (when taxes are paid) in the last four months of 2012, which was higher than at any time in the previous two years. As result, the cigarette market was oversupplied in December 2012, when the legislation passed. The industry reduced its supply to the market in January 2013 as it waited for the lower-taxed cigarettes produced/imported in 2012 to be sold. Therefore, the market consisted of both “old” cigarettes with lower taxes and “new” cigarettes with higher taxes in the first months of 2013. When the oversupply of cigarettes was absorbed after about four months, the number of cigarettes removed from warehouses for retail distribution went back to its market equilibrium levels. Figure 1 also shows similar frontloading towards the end of 2013 in the anticipation of January 2014 tax increase. This market manipulation by the industry manifests itself not only in the statistics for “removals”, but also in the associated tax revenue, which mirrors the changes in “removals”.

Figure 1: Removals of Tobacco Packs, Philippines, 2011-2013



Source: Government of Philippines, 2014

## STRATEGY 2

# Changing the attributes of tobacco products or their production processes

### Definition

Tobacco tax structures can be quite complex, and tax types and rates may vary based on different characteristics of tobacco products. For example, in some tax systems, tax types and rates depend on the length of cigarettes, the weight of a product, product price, or the type of product (e.g., tax rates may be different for pipe tobacco and ‘roll your own’ loose tobacco). Rates may also vary by some characteristic of the production process, such as the scale of production.

When taxes are increased on some types of products more than others, the tobacco industry may exploit the different tax classifications and seek to have its products reclassified to categories with a lower tax rate. In such cases, the tobacco industry may change the physical attributes of its products or its production methods so that they fall into a lower tax category. For example, the industry may change the weight or length of a product so that it can be defined as a different type of product. The tobacco industry may also adjust its production processes so that its products fall within a lower tax production category.

### Motivation

Complex tax systems that impose different tax rates based on product attributes often provide many opportunities for tobacco companies to modify products or production process in order to avoid paying higher tax and avoid the full impact of planned tax increases on tobacco sales and profits.

### Implications

If the tobacco industry is successful in having some or all of its products reclassified to a lower tax rate, the government’s tax revenues will be lower than expected.

If the industry does not otherwise alter its pricing strategy, such reclassifications may reduce the impact of the tax increase on tobacco use, because prices will not rise by as much as intended.

### What can be done?

The best strategy to prevent the tobacco industry from manipulating the characteristics of its products to reduce its tax liability is to implement a uniform tax structure as recommended by the Guidelines for implementation of Article 6 of the WHO FCTC. This requires governments to impose the same tax rate on all tobacco products regardless of their characteristics, prices or production process, with no exceptions. The Philippine tax reform of 2012, for example, set two tax tiers for 2013 to 2016 with a single uniform tax applied in 2017.

As recommended by the Article 6 Guidelines, all tobacco products should be taxed in a comparable way as appropriate, in particular where the risk of substitution exists. The goal is to minimize the tax rate gap between different types of products, because it will diminish the motivation for the tobacco industry to reclassify its products to reduce the tax liability. Wherever possible, comparable tobacco products should be taxed similarly.

When countries maintain complex tax structures, specific policies may be needed to prevent the industry from taking advantage of tax system, such as the example from Indonesia described above.

Some governments also regulate the number of cigarettes per pack to prevent the industry from price manipulation. When the number of cigarettes per pack is not regulated, tobacco companies can manufacture packs with fewer cigarettes and in so doing disguise price increases that generate greater company profits, thus compensating for any possible harm to profits caused by reduced sales after a tax increase.

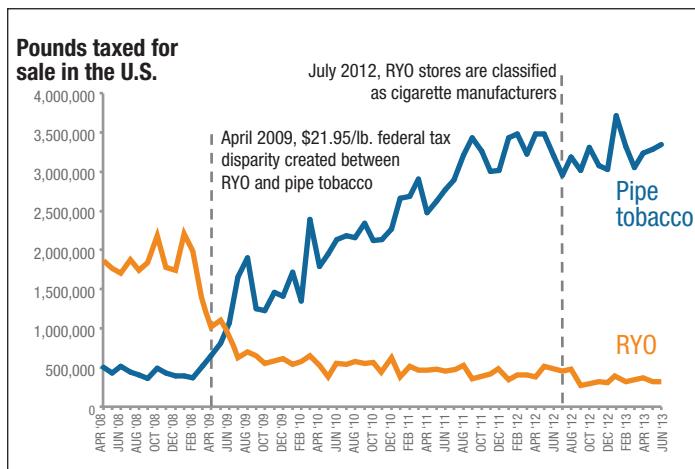
## Case studies: Changing attributes

### USA<sup>5</sup>

In April 2009, Federal excise taxes on all tobacco products increased, but the amount of the increase varied by product. For example, the new tax on roll-your-own (RYO) tobacco was US\$ 21.95 per pound more than that for pipe tobacco. In the US, producers are allowed to self-classify the type of tobacco in the absence of regulated standards, and after the tax increase, the tobacco industry relabeled RYO as pipe tobacco, reducing its tax liability. As a result, sales of RYO tobacco fell by around 75% from approximately two million to 500,000 pounds per month while sales of pipe tobacco increased more than four times within four months after the tax increase (see Figure 2). The sale of the relatively cheaper pipe tobacco was further facilitated by installation of commercial rolling machines in places of sale that allowed customers to roll their own cigarettes using pipe tobacco and thus obtain cigarettes for approximately one third the price of manufactured cigarettes.

Although sales of pipe tobacco leveled off in 2012, following Federal legislation requiring retailers who allowed the use of commercial rolling machines to register as manufacturers, the price differential between RYO and pipe tobacco – as well as the discrepancy in sales – persists.

Figure 2: US Sales of RYO and Pipe Tobacco 2008–2013



Source: Tynan M, Morris D, Weston T. Continued implications of taxing roll-your-own tobacco as pipe tobacco in the USA. *Tobacco Control*. 2014;0:1–3. PMID: 247219685

### Indonesia

Indonesia has a very complex tobacco tax system. Tobacco tax rates vary by type of product (kretek vs. white cigarette), mode of production (machine-made vs. hand-rolled) and also by the manufacturing facility production level (Table 1). For example, machine-made kreteks produced in facilities manufacturing more than two billion sticks pay a higher rate of tax than machine-made kreteks produced in facilities manufacturing less than two billion sticks.<sup>6</sup> Since the tax rate favors smaller scale production, tobacco companies were motivated to split up production into large numbers of small scale producers to reduce their tax liability. The lower tax payments more than offset any potential gains from economies of scale of larger production facilities

In order to address this tax avoidance, the government changed the law so that subsidiaries of big companies that previously qualified for the tax advantage are no longer allowed to file their taxes independently from the parent company.<sup>7,8</sup>

Table 1: Indonesia Tobacco Tax Structure, 2013

TYPES	PRODUCTION CATEGORY		HJE* RANGE PER STICK	2013 TAX PER STICK (RP)
	Group	Volume of production (billion sticks)		
Kretek cigarettes by machine	I	>2	670 631-669	375 355
	II	≤2	550 440-549	285 245
	I	>2	680	380
	II	≤2	445 345-444	245 195
White cigarettes by machine	I	>2	750 550-749	275 205
	II	0.4-2	380 350-379 336-349	130 120 110
	III	<0.4	250	80

\* HJE: government set retail price

## STRATEGY 3

# Lowering prices

### Definition

Tobacco companies may lower prices of some or all of their products in response to a tax increase.

### Motivation

Tobacco companies may lower their prices in order to reduce its tax liability and/or to meet a sales target.

If a country has an ad valorem tobacco tax (an excise tax levied as a percentage of the price of tobacco products), tobacco companies can reduce the impact of the tax increase by lowering product prices, which are used to calculate the tax liability. In doing so they may reduce their profit margins and/or the profit margin of their distribution partners. However, their overall profits might not be affected if lower prices generate more sales.

In jurisdictions which impose different tax rates based on price categories (bands or tiers), the industry may lower prices on some brands in response to a tax increase so that these products are re-classified into a price category with a lower tax rate.

The tobacco companies can also decide to selectively lower prices only on some products in order to minimize the impact of a tax increase on sales. This type of price strategy is intended to keep price sensitive customers in the market by providing them affordable product while preserving or even increasing prices for less price sensitive customers who consume more expensive products.

In systems where the tax is not levied on retail prices, producers/importers can conspire with distributors and collect a portion of the price from distributors while keeping the price on the books of producers/importers artificially low. Low base price keeps tax liability low while a part of the profit is being collected at the point where it does not affect the tax rate. For example, a producer could release products from the factory at one price and pay taxes on that price. The distributor could then substantially mark up its prices when it sells to retailers and return some portion of this higher price to the producer. If the producers also own the distribution outlets, they can take advantage of internal pricing within their own accounting systems to gain the same advantage.

These types of ‘kickback’ schemes can be legal or illegal, depending on the country. Such schemes result in less tax being paid on products and can result in lower prices.

### Implications

Reducing the base price of tobacco products may reduce the tobacco industry's profit built into ex-factory prices (i.e., the base price or price of products as they leave the factory); however it may increase the industry's overall profit by saving on tax payment and by increasing sales if the price and tax reduction is passed on to the consumer in the form of reduced prices.

Lowering prices in order to reduce the tax liability will most likely decrease government's revenues and limit the impact of the tax increase on tobacco use. However, the specific impact will depend on the market share of products subject to such tax manipulation and the overall pricing strategy of the industry after the tax increase.

### What can be done?

Specific taxation systems – in which tobacco tax is calculated based on quantity rather than price – are less susceptible to this kind of industry price manipulation than ad valorem tobacco systems.

Similarly, a uniform tax structure will prevent tobacco companies from lowering prices with the intention of moving them into a tier with a lower tax rate.

Countries with more complex tax system may need to take extra measures to prevent the industry from taking advantage of the system by lowering the prices. Pakistan has two-tier specific tax with lower prices cigarette paying lower tax rate. In order to prevent the industry from lowering its prices with the intention to qualify for the lower tax brackets, manufacturers cannot reduce their prices when the budget (and the new tax rates) are announced.<sup>12</sup>

Setting a specific minimum tax floor (the minimum amount of money to be collected per a cigarette) is another possible tool to prevent the industry from lowering prices to reduce its tax liability. The tax floor will guarantee that a minimum amount of tax is collected on each pack, thus eliminates the motivation for price reduction on those brands where the minimum tax exceeds the tax amount calculated using the existing tax formula.

Some jurisdictions have tried to reduce the industry's manipulation of prices by adopting minimum price laws. Such laws mandate that all products meet a minimum price. The effectiveness of the minimum price laws on

tobacco sales and on government revenue has been questioned with the empirical evidence clearly favoring imposing a minimum specific tax over a minimum price. Raising the specific minimum tax floor to the level of minimum price is an alternative to establishing a minimum price. By raising the tax floor, the government receives additional tax revenue, rather than the industry receiving the profit from a mandated minimum price.

## Case studies: Lowering prices

### Senegal

Senegal uses two ad-valorem tax rates. In January of 2012, Senegal raised the ad valorem tax on premium tobacco brands from 40% to 45% of retail price and from 20% to 40% on economy brands. In anticipation of the tax increase, Philip Morris International (PMI) reduced the price of a pack Marlboro cigarettes from 650 CFA francs (US\$1.20) to 400 CFA francs (US\$0.79) in December 2011.<sup>9</sup> By lowering the price, Marlboro qualified as an economy brand and was assigned the rate of 40% in January 2012, therefore avoiding any increase in tax.

By lowering Marlboro prices, PMI not only lowered its tax payment, but also increased its market share. A spokesperson for PMI commented that "The [tobacco] industry is losing major markets in Europe and North America, and is seeking refuge in Africa."<sup>10</sup>

### Russia

Prior to 2007, Russia imposed an ad-valorem tobacco tax based on ex-factory price of tobacco products. Tobacco producers took advantage of the ad valorem tax and their control of the distribution system to reduce their tax liability. The producers sold cigarettes to distributors for a considerably reduced price and then used this discounted price as the basis for calculating the ad valorem tax liability. Once the tax was collected, the distributors would price cigarettes high and share the extra profit from the higher margin with the producers.

In 2007, this loophole was closed by changing the tax base for the ad valorem tax from the ex-factory price to the retail price, and by introducing a minimum tax per pack.<sup>11</sup>

## STRATEGY 4

# Over-shifting or increasing prices more than a tax increase

### Definition

Over-shifting occurs when the tobacco industry increases its prices by more than the tax increase.

### Motivation

The tobacco industry is well aware of the impact of higher prices on demand. By increasing prices even more than the amount of a tax increase, the industry can increase its profit margin and compensate for any reduction in revenue due to decreased sales resulting from higher prices. However, since each tobacco company is also focusing on its market share, this type of response is primarily observed in markets dominated by a single company and in highly concentrated mature markets with limited number of companies (e.g., USA). Over-shifting also occurs in mature markets where the smoking rates already peaked and are either stable or declining.

By increasing prices simultaneously with a tax increase the industry can blame the government's tax policy for higher product 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 price policy.

Similar to selective price reduction, the tobacco industry might only over-shift taxes on some, usually higher priced brands, because its consumers are less price-sensitive. The industry often uses a combination of under- and over-shifting; over-shifting on premium products and under-shifting on lower priced products for more price sensitive consumers (See *Strategy 5 for the definition of under-shifting.*) This type of price strategy is intended to maximize both demand for products and profit margins.

### Implications

Since over-shifting results in higher prices, it is not in itself a negative outcome from a public health perspective. Indeed, if over-shifting is market-wide, it may lead to a reduction in demand above the reduction expected as a result of the tax increase. However, as noted above, tobacco companies may over-shift a tax increase on some products while simultaneously under-shifting a tax increase on other products. This will increase the segmentation of the market and reduce the overall impact on tobacco demand since those who would have otherwise quit may just switch to cheaper products (a phenomenon called down-trading).

In the case of over-shifting, tax revenue resulting from a tax increase may be less than projected since the demand will decline more due to higher than expected price increases. The overall impact on tax collection will depend on the tax structure and on the down-trading behavior.

### What can be done?

Although over-shifting can produce a positive outcome from a public health perspective, it results in increased profits for the tobacco industry and in lower than expected tax revenue. It is also an indication that the market can absorb higher prices and thus a signal to the government that taxes can be increased.

Continuing to increase taxes may eventually limit the industry's ability to over-shift tax increases and result in both positive public health benefits and increased government revenue. Countries can also tax excess profit, which would further increase tax revenue and reduce incentives for over-shifting. However, such a profit tax does not have the same public health outcome as increasing the excise tax and adds complexity to the tax system.

## Case studies: Over-shifting

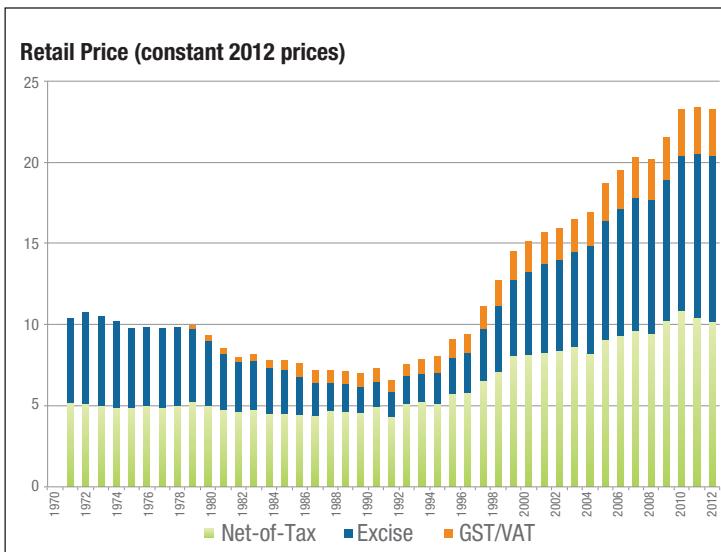
### South Africa

South Africa implements a uniform specific tax (i.e., the same value of tax on all cigarettes); however, since the early 1990s, this specific tax has been set as an ad valorem rate of the retail price of the most popular brand. In 1994, the South African Minister of Finance (MoF) announced that the government would increase the total tax on tobacco products to 50% of the retail price (this total tax includes the excise tax and the value-added tax). The MoF announced that this target was achieved in 1997, and total tobacco taxes remained at 50% until 2003. In 2003, the total tax as a percentage of retail price was raised to 52%.

The tobacco industry increased prices of cigarettes, and thus its profit margins, more rapidly than the government raised tobacco taxes between the early 1990s and 2005. On average, for every 10 cent increase in the real level of excise tax, the real retail price of cigarettes increased by approximately 18 cents.<sup>13</sup>

The industry is maintaining its overall profitability by increasing the profit per cigarette, despite the fact that quantities are falling.

Figure 3: Composition of Cigarette Retail Price, South Africa, 1970-2012



Source: van Walbeek C. *Industry responses to the tobacco excise tax increases in South Africa*. *South African Journal of Economics*. 2006;74(1): 110-122

### Australia<sup>14</sup>

In the period between August 2011 to February 2013, excise taxes on a pack of 25 cigarettes increased by AU\$0.24 while the net of tax price increased by AU\$1.75. On a percentage basis, excise was up 2.8% for the period while the tobacco companies' average net price rose 27%. For example, a pack of BAT Australia's Winfield 25s went from \$16.55 in August 2011 to \$18.75 in February 2013. Of the \$2.20 increase, only 44¢ was excise and general sales tax (GST), the rest was profit for tobacco firms and retailers. Philip Morris Choice 25s rose \$1.80 in the same period, but only 41¢ due to higher excise and GST.

Despite the rises in excise duties during this period, the total amount of excise that BAT Australia and Philip Morris pay has remained virtually unchanged due to the lower volume of cigarettes sold.

Despite the falling sale volumes, the 2013 profits of the three largest tobacco companies (British American Tobacco, Philip Morris and Imperial Tobacco) reached AU\$2.2 billion, a 100% increase since 2008.

## STRATEGY 5

# Under-shifting

### Definition

Under-shifting is the opposite of over-shifting. Under-shifting occurs when the tobacco industry increases prices by less than the amount of a tax increase; that is, it absorbs some of the tax increase.

### Motivation

The industry under-shifts taxes to lessen the effect of the tax increase on consumers and lower the impact of the tax increase on demand. This response is usually temporary as under-shifting lowers the industry profit margin at the expense of preserving as much sales volume as possible.

The tobacco industry may not under-shift a tobacco tax across all products; for example, it may only under-shift tax increases on low and super-low brands to accommodate more price-sensitive consumers. The tobacco industry might combine the strategy of under-shifting on low-price products with the strategy of over-shifting on higher-priced products to minimize the impact of a tax increase on sales and to preserve its original profit margin.

### Implications

Under-shifting affects the public health efficacy 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 generally will be higher than expected since the higher tax will be collected on larger than expected sales.

### What can be done?

Continuing to increase taxes will eventually limit the industry's ability to under-shift tax increases as the Ukraine example shows.

Setting a minimum tax floor is another possible tool to prevent the industry from under-shifting taxes. Such a tax floor will guarantee that a minimum amount of tax is collected on each pack, thus eliminates the motivation for under-shifting on those brands where the minimum tax exceeds the tax amount calculated using the existing tax formula.

A minimum tax floor prevents tobacco companies from reducing their tax liability in ad-valorem or multiple tiered tax system.

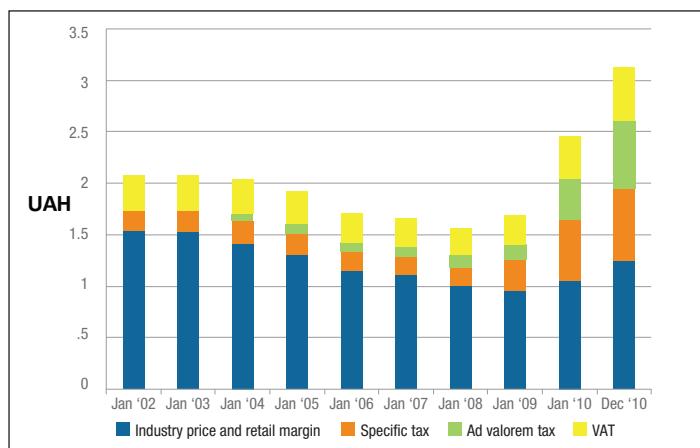
## Case studies: Under-shifting

### Ukraine<sup>15</sup>

Between 2008 and 2010, Ukraine increased tobacco taxes five times. In 2007 and 2008, when the tax increases were small and the tax represented a relatively small share of the retail price, the tobacco industry was able to protect consumers from the tax increases, under-shifting the tax increase. Between January 2007 and January 2008, the real, inflation adjusted, cigarette excise tax rose by 6 percent, yet real cigarette prices fell by 11 percent (Figure 4).

After more significant tax increases in 2009, the tobacco industry over-shifted the tax increase, passing both the tax increase on to consumers and adding an additional price increase to increase its own profit margins. From January 2009 to December 2010, the real industry prices (exclusive of tax) increased from UAH 1.32 to UAH 1.8, a 39% increase.

Figure 4: Share of Taxes in Real (Inflation-adjusted) Filtered Cigarette Prices in Ukraine (2002-2010)



Source: Ross H, Stoklosa M, Krasovsky K. Economic and Public Health Impact of 2007 - 2010 Tobacco Tax Increases in Ukraine. *Tobacco Control*. 2012; Online First. doi:10.1136/tc.2010.040071

### China

The China National Tobacco Company (CNTC) is a state-owned monopoly, which sets producer and wholesale prices jointly with other government agencies. In May 2009, China increased excise tax rates from 45% to 56% of the producer price on Class A cigarettes (costing 7 RMB (US\$ 1.03) or more) and from 30% to 36% on Class B cigarettes (costing between 5 RMB (USD 0.74) and 7 RMB (USD 1.03)) per pack at the producer level).

As a result of the tax increase, producer prices increased by 11.7% on average. At the same time, the sector of the Chinese government that owns CNTC decided not to increase cigarette retail prices, preventing the industry from passing the tax increase on to consumer. This reduced the industry's profit margin and the associated revenue in one part of the government while increasing the tobacco tax revenue managed by another part of the government. Since the prices did not increase, there was no change in cigarette consumption. If this tax increase had been passed on to consumers, average retail prices would have increased by an estimated 3.4%.<sup>16</sup>

## STRATEGY 6

# Timing of price increase

### Definition

Price increases may coincide precisely with tax increases, or may happen in the weeks/months before or after a tax increase. Prices can increase just once or they can increase gradually over time.

### Motivation

By increasing prices before a tax increase comes into effect, tobacco companies attempt to sensitize their customers to new, higher prices while simultaneously collecting additional profit. Gradual price increases allow customers to adjust gradually to higher prices and prevent “sticker shock”, a feeling of surprise and disappointment caused by learning that something you want to buy has become very expensive.

### Implications

Increasing the price before a tax increase goes into effect will reduce consumption and lower tax revenue prior to the tax increase. The temporary revenue loss will be reversed once the new tax goes into effect. However, the impact of the tax increase on consumption after the tax increase will be reduced since the demand has already responded to new prices before the new tax 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. Again, this can be used for industry messaging about a public health failure. Once the industry increases its prices, consumption will fall and tax revenue will likely fall from its artificially high level as a result of the delayed price increase. The industry may use this as an opportunity to point to the failure of the tax increase to increase revenue. However, the reason for the drop in the tax revenue is the fact that it 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.

### What can be done?

It is important to monitor tobacco product prices and brand proliferation (in particular the launch of cheap brands) before and after tax changes in order to assess the industry strategy. This will help with the interpretation of sales and revenue statistics as they become available, and with countering industry misinformation.

## Case studies: Timing

### Bosnia and Herzegovina

Since 2009, Bosnia and Herzegovina (BiH) has had a mixed excise system with an ad valorem tax rate of 42% of the retail sales price plus a specific tax starting at 7.50 (Convertible Marks or KM) per 1000 cigarettes. The specific tax is increasing every year by 7.50 KM per 1000 cigarettes until the EU minimum tax of 64 Euros (126 KM) on 1000 cigarettes of the most popular brand is reached.<sup>ii</sup> In 2014, the specific excise tax on cigarettes was 45 KM (US\$31.50) per 1000, or 0.90 KM, (US\$0.63) per pack.

The majority of tobacco companies have responded by increasing their prices at the same time as the tax increases. Philip Morris, however, made the strategic decision to postpone its price increases by a few months after each tax increase in order to gain a temporary competitive advantage, speculating that some of the people who switch to its brands while they were temporarily cheaper may stay loyal to the brand even after its price increases. It proved to be a successful strategy since Philip Morris's share of the market increased from 14.4% in 2011 to 18.5% in 2012.<sup>17,18</sup>

### USA

In February 2009, the United States 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, the major cigarette makers raised prices about one month before the new tax went into effect, partly to offset an expected drop in profits. For example, Philip Morris raised Marlboro prices by US\$ 0.71 a pack and prices on smaller brands by US\$ 0.81 cents a pack in early March 2009, thus over-shifting the tax increase of US\$ 0.62. Other major companies followed suit.<sup>19</sup>

<sup>ii</sup> In 2014 the EU minimum tax on cigarettes increased to €90. The base has changed from the most popular brand to a weighted average price in the EU.

## STRATEGY 7

# Price discrimination/price-related promotional activity

### Definition

Price discrimination is selling the same product at different prices to different customers. The tobacco industry engages in price discrimination by using various price-related promotions to lower the price or otherwise add value to its products for a particular category of consumers [for example: by using coupons, samples, gifts with purchase, or by differential pricing by geographic location or store type (e.g., retailer rebates)].

### Motivation

The tobacco industry may use price discrimination to preserve affordability of products across all income groups following a tax increase. The goal is 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. This will minimize the effect of a tax increase on sales.

### Implications

Price discrimination allows the industry to maximize profitability by minimizing the effect of tax increases on demand. The industry will make a higher rate of profit on less price sensitive consumers and a lower rate of profit on more price sensitive consumers. The lower rate of profit is compensated by higher sales volume.

Consumers in lower income groups with high price sensitivity are more likely to take advantage of price promotions because the cost of their time is lower (i.e., it takes time to find promotions, go to a particular location, cut coupons, etc). Thus, price promotions disproportionately impact the poor, reducing the positive impact of tax increases on tobacco use in low-income groups.

Tax revenue will be higher than expected if the decline in sales expected from a tax increase is less than anticipated due to industry price discrimination practices.

### What can be done?

Banning price-related promotional activity and discounts will prevent (or at least restrict) the industry from engaging in this activity; many countries have already taken this step.

## Case studies: Price-related promotions

### USA

Before a 159% increase of federal tobacco excise tax in the United States in April 2009, Philip Morris USA sent an e-mail to its customers inviting them to register on its website to become eligible for promotional coupons. These types of coupons are particularly appealing to women, youth and minorities, price-sensitive groups specifically targeted by the industry.<sup>20</sup> The email stated:

#### E-mail

*On February 4th, 2009, the Federal Government enacted legislation to fund the expansion of the State Children's Health Insurance Program (SCHIP) that increases excise taxes on cigarettes by 158%.*

*As a result, you will see the price of all cigarettes, including ours, increase in retail stores.*

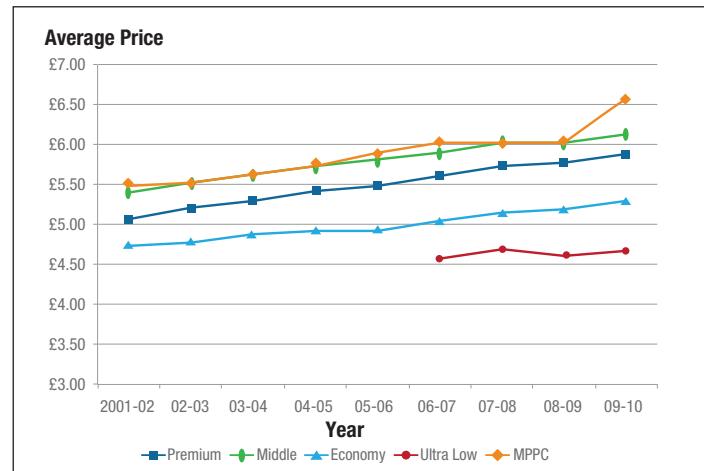
*We know times are tough, so we'd like to help. We invite you to register at Marlboro.com to become eligible for cigarette coupons and special offers using this code: MAR1558.*

*Thank You,  
Philip Morris USA*

### United Kingdom

From 2001 to 2008, tobacco taxes in the UK rose annually in line with inflation. In 2009 and 2010, tobacco taxes were increased by 5% and 1% above the inflation rate, respectively.<sup>21</sup> In response to the tax increases, the industry introduced a new ultra-low price (ULP) category in 2006, expanding the existing three price categories (premium, economy, middle-price) to four. Since its market introduction, the industry kept the real prices of these very cheap cigarettes constant, protecting them from the impact of the tax change by absorbing the tax increase. While shielding the ULP segment, the prices on the other price segments increased more than the tax increases would demand, and the industry made an extra profit on brands in these price segments. Thus, the industry over-shifted the tax increases on its most expensive brands while under-shifting the tax increases on the least expensive brands. As result of this price discrimination, the most sensitive smokers down-traded to cheaper tobacco products, and the market share of the ULP cigarettes doubled from 10% in 2006 to 20% in 2009. The lower rate of profit on ULP cigarettes was compensated by higher sales volume. The industry price strategy diminished the public health benefit of higher taxes and contributed to persistent smoking-related inequalities in the UK.<sup>22</sup>

Figure 5: Real Weighted Average Cigarette Prices by Price Segment in the UK (2001 - 2010)



Gilmore A, Tavakoly B, Taylor G, Reed H. Understanding tobacco industry pricing strategy and whether it undermines tobacco tax policy: the example of the UK cigarette market. *Addiction*. 2013; 108 (7):1317-1326

# Conclusion

**A**s indicated by the “What can be done?” section under each strategy, governments are not without power when it comes to responding to tobacco industry strategies to minimize the impact of tobacco tax increases. Governments have the power to regulate the industry (see the specifics in “What can be done?” relevant for a specific strategy). In order to do so, they need to monitor industry behavior and collect data to understand what the industry is doing and when to regulate.

To effectively monitor the industry, government should collect or require the industry to report the following data to government authorities:

- 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
- Data on price-related promotions such as gifts with purchase, a chance to win a prize, discount coupons, etc.
- Changes in products’ characteristics such as pack size, weight, length, etc.
- Introduction of new products/brands, their specifications, and their prices
- Total promotional expenditures and promotional spending by product categories.

Governments will need to systematically analyze such data in a way that will detect possible industry tax avoidance. Analyzing this data will allow the government to respond quickly to tax avoidance schemes, which will increase both tax revenue and the positive impact of tobacco tax policy on public health.

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