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This policy brief is based on a research study entitled **"Cigarette Brand-Switching Behavior and Tobacco Taxation in Vietnam"** conducted by the Development and Policies Research Center (DEPOCEN)

Cigarette Brand Substitution Patterns in Vietnam

The Ministry of Finance of Vietnam is proposing to adopt a mixed tobacco excise tax structure as a replacement for the current purely ad valorem system. Accordingly, a specific tax component will be imposed on top of the ad valorem tax. The specific tax rate being discussed ranges from VND 1,000 to 2000 VND as currently being proposed by MOF and to VND 5,000 per 20-cigarette pack VN as suggested by WHO and other international organization.[1]

While evidence from other countries has shown that specific excises tend to result in higher reductions in cigarette consumption than ad valorem excise taxes[2], one concern against this tax structure reform is that switching to a mixed scheme may shift consumption away from cheaper, domestic brands to more expensive, foreign (FDI) brands. This then adversely affects the domestic industry without effectively reducing cigarette consumption.

To address this concern, a discrete choice experiment is conducted to examine cigarette brand substitution patterns when cigarette price changes. The experimented brands include the most popular domestic, foreign, as well as illicit brands in Vietnam. Together, they account for over 80% of the cigarette market in the country.

Table 1 Estimated Semi-Price Elasticities for Cigarette Brands

Seg	North			Central			South		
	Brand	Sai Gon	Vinataba	**Brand**	Sai Gon	White Horse	**Brand**	Sai Gon	Craven A
Low	Sai Gon	-29.7	2.3	Sai Gon	-25.7	7.1	Sai Gon	-35.6	1.8
	Thang Long	2.8	1.5	Batos	6.9	4.6	Hoa Binh	15.3	1.8
	Tourism	7.3	0.6	Prince	7.4	3.6	Khanh Hoi	18.2	1.3
High	SE555	0.9	2.8	SE555	1.0	8.1	SE555	0.4	2.2
	Vinataba	1.6	-11.6	White Horse	2.0	-4.6	Craven A	2.3	-17.7
	Optout	1.2	0.0	**Optout**	3.0	0.3	**Optout**	4.3	0.1

Note: Each entry indicates the estimated percentage change in the market share of row brand (or equivalently, in the number of its current smokers) with respect to a VND 1,000 increase in the price of column brand. Vinataba, Sai Gon, Tourism, Thang Long, Batos, Price, Hoa Binh and Khanh Hoi are domestic brands while SE555, White Horse and Craven A are foreign brands (FDI). Optout refers to "none of these brands", meaning that smokers choose not to smoke any of the listed brands.

The research finds that smokers are more likely to substitute a domestic brand with another domestic brand than with a more expensive foreign brand. As shown in Table 1, when Sai Gon's price increases by VND 1,000, the number of smokers of Hoa Binh, another domestic brand, would increase by over 15%, compared to only a 2.3% increase in the number of smokers of Craven A, a high-priced, foreign brand. Similarly, for a VND 1,000 increase in Craven A's price, the number of smokers choosing Hoa Binh would increase by less than 2%, much less than the 15+% when the price of Sai Gon rises by the same amount.

Price differences between brands may explain the observed substitution pattern. When the price of a domestic brand increases, it is easier for its smokers to

[1] WHO. Tobacco Taxes in Viet Nam Questions and Answers. Hanoi; 2018.

[2] WHO. 2010. *WHO Technical Manual on Tobacco Tax Administration*. Geneva.

switch to another brand of the same domestic segment since their prices are relatively comparable. In contrast, the foreign brands are considerably more expensive, making them significantly less affordable for many smokers of the low-priced domestic brands.

When cigarette prices increase, smokers of the low-priced brands are more likely to opt out (that is, to buy none of the studied brands or quit smoking) than those who smoke the high-priced ones. As shown in Table 2, for every 100 smokers who substitute away from Prince, a low-priced brand in response to a VND 1,000 rise in its price, roughly 40 of them would choose to opt out. In contrast, less than four would switch from White Horse, a high-priced brand to the optout when its price increases by the same amount. This finding provides strong evidence that smokers of low-priced brands appear more likely to stop smoking when faced with higher cigarette prices. Considering the economic benefits of reduced tobacco use, including saved healthcare costs and more years to work, this implies that a greater benefit can accrue to the poor from higher tobacco tax since smokers of low-priced cigarettes are predominantly low-income earners.

Table 2 Substitution from Cigarette Brands to Optout

Price segment	North		Central		South	
	Brand	**Proportion (%)**	**Brand**	**Proportion (%)**	**Brand**	**Proportion (%)**
High	Vinataba	0.3	Legal_SE555	0.4	Legal_SE555	0.1
	Legal_SE555	0.4	White_Horse	3.3	Craven_A	1.2
Low	Sai_Gon	5.7	Batos	18.1	Hoa_Binh	20.6
	Tourism	28.7	Sai_Gon	19.1	Sai_Gon	23.9
	Thang_Long	32.6	Prince	41.2	Khanh_Hoi	35.1

Note: Given a VND 1,000 price increase of a row brand, each entry gives the number of smokers who switch to the optout as a percentage of all smokers, who substitute away from the row brand. Sai Gon, Tourism, Thang Long, Vinataba, Batos, Price, Hoa Binh and Khanh Hoi are domestic brands while SE555, White Horse and Craven A are foreign brands. Optout refers to "none of these brands", meaning that smokers choose not to smoke any of the listed brands.

One important explanation for the above finding has to do with income. Budget constraint can be one of the main reasons that lower-income smokers choose domestic brands in the first place. When cigarette prices increase, smokers of the more expensive, foreign brands have more alternative options other than opting out available at their discretion. In addition to switching to other high-priced brands, they can easily trade down to the more affordable, domestic brands to maintain their consumption and mitigate rising smoking expenses. Trading-down however is not available for smokers of the domestic brands, many of whom cannot afford higher smoking expenditure and upgrade to high-priced cigarettes either due to large price gaps. Consequently, they are more likely to strive to quit smoking cigarettes.

In the light of its findings, this research recommends the Government of Vietnam to switch to the mixed tobacco excise system by imposing a specific excise tax on tobacco products. Contrary to the raised concern, smokers are more likely to substitute a domestic brand with another domestic brand than with a foreign brand. More importantly, the specific excise tax can benefit low-income smokers more, thereby ultimately making tobacco taxation more progressive.

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