# International Best Practices for Tobacco and Nicotine Public Policy







#### Introduction

Government regulations that have the intention to curb nicotine use often violate property rights and raise trade barriers. Instead of succeeding, they increase illicit trade in tobacco while the consumption rate stays steady or increases. Such failed policies include bans on flavors, bans on usage branding, prohibitions on advertisements, taxes, tariffs, and other regulations aimed at obscuring tobacco and restricting supply through price controls. A recent study conducted by PRA free-market think tank partners highlights the international best practices (IBP) concerning tobacco and nicotine regulations that help to achieve harm-reduction and cessation while promoting innovation and guarding against unintended consequences.

The Property Rights Alliance congratulates Adam Hoffer (Associate Professor of Economics at the University of Wisconsin, USA), Abel Benjamin Lim (Economist at Bait Al-Amanah, Malaysia) Fariq Sazuki (Fellow at Center for Market Education, Malaysia), Benedict Weerasena (Fellow Center for Market Education), and Carmelo Ferlito (CEO of Center for Market Education, Malaysia) on their paper "International Best Practices for Tobacco and Nicotine Public Policy." This work contributes case studies in East Asia and ASEAN with a focus on Indonesia, Malaysia, the Philippines, South Korea, and Japan to illustrate how developments in tobacco quit aids lead to greater smoking cessation rates.

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Tobacco policy in the context of IBPs has three objectives. First, policies should incentivize behavioral change through individual choice, instead of restrictive policies intended to harm consumers such as taxes. Through a comprehensive literature review, the study finds that increasing the price of tobacco products by 10% only results in a three to five percent decrease in consumption. Second, the goal of best practices should focus on reducing tobacco smoking, as combustible tobacco products like cigarettes and cigars are extremely harmful while chewing tobacco, sniffing tobacco, and tobacco vaping is much less harmful. Although reduced tobacco consumption is unsafe, gradually eliminating tobacco by substituting less harmful products can achieve smoking cessation. Third, this framework focuses on facilitating an environment that incentivizes innovation and ensures competition to cultivate consumer choice. For example, Nicotine Replacement Therapy complemented with reimbursement incentives has been found to be highly successful in transitioning smokers from combustible tobacco products while creating a competitive market for businesses to sell better, less harmful, products to consumers.

The study estimates that policy recommendations that adhere to the IBPs framework in East Asia and ASEAN will result in more individuals breaking their addiction to tobacco products. In Malaysia, although 88 percent of vapers that used to smoke effectively quit tobacco consumption, the 10% sales tax on tobacco and manufactured tobacco substitutes as well as electronic cigarettes and vaping disincentivizes individuals to shift from cigarettes to lower-risk alternatives. Regarding Indonesia, in addition to the existing VAT at 10% and import tariffs on tobacco products, as well as a 57% ad valorem tax on quit aids, the government instituted an excise tax which caused cigarette demand to increase by 3% in 2020.

In the Philippines, the prohibition of smoking in public places as well as increased taxation on 20-pack cigarettes by 5 pesos a year until 2023, establishes a burden for individuals to overcome their addiction. Yet, lower taxes on nicotine alternatives brings hope to smoking cessation efforts in this country.

In Japan, the ban on nicotine products and high excise taxes of more than 50% of the retail price on cigarettes and heated snus are tobacco-use punishments rather than rewards. In South Korea, given e-cigarettes are regulated like conventional cigarettes with high taxes and bans, usage of quit aids is slow and declining.

This study finds that policies that fall behind IBPs undermine smoking cessation efforts. Restrictions on public usage and advertising, high excise taxes on combustible tobacco and e-cigarettes, as well as bans on these products do not encourage smokers to move away from tobacco consumption.

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### 1. Literature Review

We group policies designed to discourage smoking into three categories – (1) price controls, (2) regulations, and (3) access to nicotine alternatives and cessation aides. Price controls (e.g. cigarette taxes) and regulations are ubiquitous, but vary significantly across the globe. The effects of policies have been extensively researched. The less-punitive and restive policies are less-common, but recent research sheds a light on their relative effectiveness. We describe these policies and the major research findings below.

#### **1.1 Price Controls**

The first basic law of demand states that as prices increase, quantity demanded will decrease. This holds for tobacco consumption in all forms and the simplicity of this basic rule is a strong motivating factor behind public policy toward tobacco. Health officials, policy makers, anti-to-bacco advocates, and stakeholders of all sorts recognize that if tobacco is more expensive, consumers will purchase less of it.

The amount of the decline in quantity demanded from a price increase varies significantly across different products, however. For tobacco consumption, hundreds of academic studies have attempted to quantify the degree to which tobacco consumption responds to price changes. Cigarette demand is what economists call inelastic, meaning that quantity demanded is relatively unaffected by price changes. The estimates in the academic literature center around a price-elasticity estimate of -0.3 to -0.5 for cigarettes. This means that a ten percent increase in the price of cigarettes will result in roughly a three to five percent decrease in consumption. Complete cessation from smoking due to price changes is rare<sup>1</sup>.

Cigarette taxes are popular policies for governments around the globe. To evaluate cigarette taxes as a public policy, we must evaluate both the costs and the benefits of such taxes. The benefit of cigarette taxes in the eye of public health officials is a decrease in smoking.

<sup>1.</sup> See, for example, Gallet and List (2003) and Hoffer and Nesbit (2018).

Tax cigarettes enough to increase the sales price by ten percent and roughly five percent fewer cigarettes will be consumed. That is the benefit<sup>2</sup>.

The costs of cigarette taxes come in many forms. We group those costs into two major categories: financial burdens (on the poor) and consequences of tax avoidance.

#### *Higher Prices + Inelastic Demand = Greater Expenditures*

All empirical data tell the same story when it comes to how smokers respond to tax-induced cigarette price increases. A very few people quit smoking. Some people smoke less. An overwhelming majority of consumers keep smoking as they were before the tax. They simply pay the tax and keep smoking.

A very simple economics formula tells us that when prices increase (from a tax, for example) for a product whose demand curve is inelastic, total expenditures will increase. And that is exactly what researchers observe when they study the effects of cigarette taxes. Price increases by more than quantity demanded falls, so total expenditures on cigarettes increases with the tax. The same can be said for other tobacco products (and any other good with an inelastic demand). This becomes problematic and a suboptimal public policy when we consider who smokes. Smoking is also income-inelastic, meaning that as incomes grow, smoking products consume a smaller and smaller portion of a household's expenditures. Therefore, tobacco taxes have a relatively greater burden on the poor<sup>3</sup>.

Consider Figure 1 below. Using data from Hoffer, Gvillo, Shughart and Thomas (2017) and the United States' Bureau of Labor Statistics Consumer Expenditure Survey, we plot tobacco expenditures as a percentage of household income with a linear best-fit line for U.S. households who smoke. Tobacco expenditures as a percentage of household income decline as income grows.

No matter how tobacco products are taxed, the tax burden would follow a similar pattern, having the greatest impact on the households with the least income. The burden becomes more and more problematic as incomes approach zero. Greater tax burdens on the poorest households make more difficult the purchases of basic necessities like healthy food, clean water, and

<sup>2.</sup> We would like to reference two additional points, but we exclude a lengthy discussion of such points in this brief. First, while public health officials see a decline in smoking as a benefit, smokers – even the ones who quit smoking – do not necessarily see this as a benefit; after all, smokers choose to smoke. An academic argument is presented in Becker and Murphy (1988). Second, some proponents claim that tax revenue is an added benefit, but from an aggregate well-being perspective, tax revenue is simply transferred from individuals and businesses in the private sector to the government (with some aggregate well-being loss due to the decline in purchases), so tax revenue cannot be counted as a net benefit of a tax.

<sup>3.</sup> See Hoffer, Gvillo, Shughart and Thomas (2017) for estimates of income-expenditure elasticities for cigarettes and other products.

adequate shelter. In a nutshell, due to the inelasticity of tobacco demand, tobacco taxes are regressive.

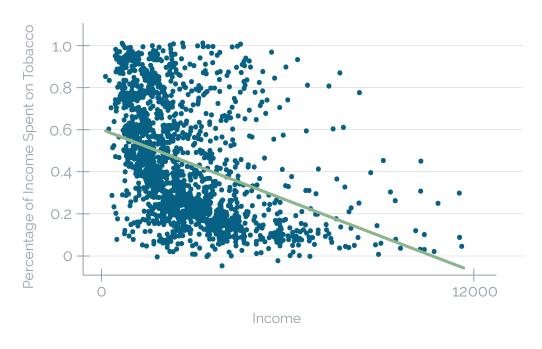


Figure 1 - Tobacco Expenditures as a percentage of Income

Source: Author's calculations

Thirlway (2019, 2020) similarly found that tobacco use in high-income countries correlates with socio-economic disadvantage; in order to reduce expenditures, working-class consumers choose cheaper products.

#### Tax Avoidances, Smuggling and Black Markets

Furthermore, price increases lead to tax avoidance, smuggling and black markets. Cigarette taxes create an artificial wedge between the costs to producers of making cigarettes and the price that consumers are willing to pay for them. As taxes increase, so do the incentives for avoiding those taxes.

The cigarette smuggling industry is massive. Cigarette smuggling accounts for roughly 11.6 percent of the global cigarette market, the equivalent of roughly 657 billion cigarettes and \$40.5 billion of avoided taxes (Joossens, Merriman, Ross and Raw, 2009). This impact of illicit cigarette activity is most heavily born in low- and middle-income countries. In Malaysia in 2008, for example, an estimated 24 percent of the total cigarette market was illicit; the situation worsened over the years. According to Euromonitor International Malaysia is the world's largest market in terms

of prevalence of the tobacco black market; illegal cigarettes in the Southeast Asian country are close to 65 percent or almost two-thirds of the entire market in 2019. The next largest tobacco black market is Brazil, where the prevalence of black market sales is roughly 50 percent of the market. According to the same report, only 10 markets have an illegal cigarette trade prevalence of over 30 percent; out of these 10 markets, Malaysia has the highest illicit trade prevalence and is the 8th biggest market in volume terms for illegal cigarettes (NST, 2019).

#### Cigarette taxes create an artificial wedge between the costs to producers of making civarettes and the price that consumers are willing to pay for them.

The obvious negative of the black market are that the revenues flow into criminal enterprises. Moreover, illicit cigarettes are more likely to be of bad quality and therefore more harmful for the consumers. Additional negatives include enforcement costs of taxpayers and expenditures to disrupt the black markets; repeated transactions with criminal dealers draw additional marginal support for the criminal enterprises from otherwise anti-criminal smokers; and greater opportunities for black market revenues incentivizes entrepreneurship into the black-market sector.

Consider the case of Eric Garner. In 2014, Eric was killed after a confrontation with team of police officers in New York City, US. The reason for the confrontation with the police is that Eric Garner was entrepreneurially selling "loosies" – individual cigarettes – on a public street corner, without charging tax.

Such "Prohibition by Price" policies lead to significant increases in illicit activities (LaFaive, 2018). With an aggregate tax of \$8.17 per pack in Chicago, US, it is no wonder that one Chicago elected official stated publicly that he feared gang conflict might erupt in the city over where their members could sell loosies (Cox and Lulay, 2015).

#### **1.2 Regulations**

Regulations on tobacco consumption take a myriad of forms. Most countries restrict the age at which consumers can legally purchase smoking tobacco, often age 18. Other regulations include location of tobacco-selling establishments (e.g. not within 100 meters of a public school), advertising bans and restrictions, smoke-free establishments (e.g. bars, restaurants, busses, planes, and public buildings), and packaging requirements (e.g. printed warnings and graphic images on cigarette packs). In this section, we describe some of the empirical findings related to the effectiveness of such regulations.

#### Advertising Restrictions

The literature on advertising bans is mixed. Nelson (2003) and Nelson (2006) concluded that advertising elasticities are small and that advertising bans have had no significant effect on cigarette consumption. Kostova and Blecher (2012) find a positive relationship between cigarette advertising and cigarette purchases, however they explain that this relationship is driven by the fact that smokers observe a disproportionate amount of cigarette advertising (tobacco companies target smokers for their marketing audience and those customers are also more likely to observe tobacco advertisements).

Saffer and Chaloupka (2000) argues that a limited set of advertising bans would have little or zero effect on consumption, but a comprehensive ban on advertisements could reduce tobacco consumption. And Blecher (2008) studied 30 low-income countries and concluded that advertising bans would reduce tobacco consumption.

Harris, Balsa and Triunfo (2015) studied the impact of multiple policies that were part a 2005 Uruguay nationwide tobacco control campaign, including a nationwide ban on advertising. Specifically focusing on pregnant women who were smokers, the authors found that a nationwide ban on advertising increased the likelihood that a pregnant mother would quit smoking prior to giving birth by 7.7 percentage points. Women that quit smoking during pregnancy as a result of the tobacco control campaign gave birth to children that were 163 grams heavier on average.

#### **Smoke-Free Establishments**

Smoking bans in areas where individuals spend the greatest amount of time have the largest effects on smoking outcomes. Evans, Farrelly and Montgomery (1999) found that workplace smoking bans reduced smoking prevalence by five percentage points and daily consumption among smokers by 10 percent.

Smoking bans at bars and restaurants seem to have little short-run effects on smokers (Adda and Cornaglia, 2010; Bitler et al., 2011). However, quasi-experimental evidence from Switzerland suggests that smoking bans in bars has a small, negative effect on smoking after 1 year (Boes, Marti and Maclean, 2015). Studying a similar policy experiment in Massachusetts, US, Siegel et al. (2005) observed that youth who were in towns with restaurant smoking bans for two years were less likely to become smokers in adulthood. Shetty et al. (2011) find no significant increase in hospitalizations or deaths related to restaurant smoking bans, however.

Perhaps the strongest effects of restaurant and bar smoking bans come from decreased expo-

sure to second-hand smoke, particularly for pregnant women and especially for pregnant women employed at restaurants and bars. Adams, Markowitz et al. (2012) found that restrictions on indoor smoking were effective in improving birth outcomes, but the effects were small in magnitude and limited to infants born to mothers in certain age groups. Bharadwaj, Johnsen and Løken (2014) studied female workers in Norway. They found that the extension of smoking bans to bars and restaurants in 2004 decreased smoke exposure in utero for children of female workers, which resulted in fewer cases of dangerously low child birth weight.

#### Information and Packaging

Marketing experiments find that plain packaging (absent colors, symbols, or advertising imagery) reduces the appeal of tobacco products and increased the effectiveness of health warnings (Hoek, Wong et al. 2011, Moodie, Hastings et al. 2012, Thrasher, Rousu et al. 2011). Wakefield, Hayes et al. (2013) studied Australia's plain packaging law, finding that smokers of plain packs perceived their cigarettes to be lower in quality and less satisfying. Those smokers reported quitting smoking as a higher priority.

Experimental evidence also suggests that pack-based health warnings decrease the perceived attractiveness of the package and increase smokers' risk perception and intention to quit (Kees, Burton et al. 2006, Hammond 2011). Studying the impact of Canadian cigarette warning labels, Hammond, Fong et al. (2003, 2004) found that smokers who had read, thought about, and discussed the new warnings were more likely to have quit, made a quit attempt, or reduced their smoking three months later

Harris, Balsa and Triunfo (2015) quantified the effects of different kinds of cigarette package warnings as part of the 2005 tobacco control campaign in Uruguay. They found that package warnings increased the likelihood that a pregnant mother would quit smoking, ranging in effect from 3.1 percent up to 14.1 percent.

#### **1.3 Access to Nicotine Alternatives**

Nicotine replacement therapy (NRT) replaces the nicotine a smoker would traditionally get from smoking with an alternative delivery mechanism. The most popular of these products include passive-release transdermal patches and instantaneous delivery via gum, lozenge, spray, or inhaler. Table 1 outlines the major NRT products for sale in global markets.

Table 1: Nicotine Replacement Therapy Products				
TYPE OF NRT	BRAND NAME	PRODUCER		
Nicotine Patch	2Baconil TTS10 Nicorderm CQ Nicotinell Clear NicotineTDS	Rusan health care Johnson & Johnson Novartis Equate		
Nicotine Gum	Nicotex Nicogum Quitsure Tobaquit Nicorette Niclonz Pastilles	Cipla Cipla Lupin German Remedies Johnson Intas		
Nicotine Lozenges	Nicorette Niquitin Commit Lozenge Nicotinell	Johnson GSK GSK Novartis		
Nicotine Inhaler	Nicotrol Nicorette	Pfizer Johnson		
Nasal Spray	Nicorette Nicassist	Johnson Boots		

Source: Chauhan et al. (2016)

Two important findings of NRT relate to public policy. First, users of NRT who express interest in smoking cessation are more likely to quit. Second, NRT use increases with financial incentives to use NRTs.

White et al. (2015) studied smoking, cessation, and NRT use in Canada as provinces began reimbursing NRT products use through provincial drug insurance plans. They found that smokers were more likely to use NRT in jurisdictions with NRT reimbursements and that smokers who attempted to quit were significantly more likely to remain abstinent in jurisdictions with NRT reimbursements.

ASH (2020) found that the number of e-cigarette users in Great Britain grew from 1.7% of the

population in 2021 to 7.1% in 2019, but for the first time, current e-cigarette use has declined year-on-year, from 7.1% to 6.3% of the adult population in 2020, amounting to 3.2 million people. It is interesting to note that over half (58.9%) of current vapers are ex-smokers and the proportion has grown year-on-year, while the proportion of vapers who also smoke (known as dual users) has fallen to 38.3% in 2020. At the same time, while in 2011 19.8% of adults smoked, the figure fell to 13.9% in 2019; this is equivalent to a drop from 7.7 million smokers in 2011 to 5.7 million in 2019. Therefore, a link has been established between rising e-cigarette users and declining tobacco smokers.

Tauras and Chaloupka (2003) estimated a price elasticity of demand for NicoDerm CQ, Nicorette, and Nicotrol to be -1.4, -1.5, and -1.1, respectively. Thus, a subsidy that would reduce the amount consumers would need to pay by 10 percent would increase the use of the NRT products by between 11 and 15 percent.

Shifting consumption from smoking cigarettes to less harmful products also offers opportunities for harm-reduction. Electronic cigarettes (E-cigarettes) and Heated tobacco products offer substitutes whose popularity is growing quickly.

E-cigarettes create water vapor that users inhale instead of smoke. E-cigarettes use cartridges that typically contain nicotine, flavorings along with other chemicals. Pope et al. (2020) tested the substitutability of electronic cigarettes in an experimental setting and find that e-cigarettes successfully act a substitute in each scenario they tested.

Heated tobacco products use an aerosol to draw flavors and nicotine from tobacco that has been electrically heated to below the temperature at which combustion begins. In some jurisdictions, heated tobacco products have made a dramatic impact. Cigarette volumes in Japan have fallen by 33 percent in three years, from 43.6 billion sticks in Jan-March 2016 to 29.1 billion sticks in Jan-March 2019. Analysts at Citi Group attribute the disruption of the cigarette market to heated tobacco products (Bates et al., 2019).

The long-run health risks related to electronic cigarettes and vaping have yet to be identified. However, the short-run risks show that e-cigarettes are remarkably less harmful to health than traditional cigarettes (Stratton et al., 2018). A recent research (WVA, 2021) examined 61 countries and their regulation of e-cigarettes; the research concludes that with a regulatory regime that facilitates and encourages e-cigarettes as a means to quit smoking, 196 million of current smokers in those countries could switch to vaping – a 95% less harmful alternative.

A recent study from the University of Queensland also established that e-cigarettes may be more effective in helping smokers quit than nicotine replacement therapies such as patches and gum. According to the results, e-cigarettes are 50 percent more effective than nicotine

replacement therapy, and more than 100 percent more effective than the placebo. This seems to be the case because e-cigarettes deliver a small amount of nicotine to alleviate withdrawal symptoms and provide a similar behavioral and sensory experience as smoking tobacco products (Chan et al., 2021)4.

Furthermore, shifting from traditionally smoked tobacco to alternative systems can bring considerable saving for the healthcare system and increase productivity. Satyana et al. (2020) estimated the impact of smoking in the working-age Indonesian population in terms of costs, years of life, quality-adjusted life years (QALYs) and productivity-adjusted life years (PALYs) lost. The authors found that smoking caused 846,123 excess deaths, 2.9 million years of life lost (0.40%), 41.6 million QALYs lost (5.9%) and 15.6 million PALYs lost (2.3%). The total cost of productivity loss due to smoking was estimated to be US\$183.7 billion among the working-age population followed up until retirement. Similarly, healthcare burden caused by smoking was predicted to be US\$1.8 trillion. On a yearly basis, instead, the study estimated US\$10.2 billion yearly losses in GDP and US\$117 billion healthcare costs.

<sup>4.</sup> On this ground, KAC (2020) advocates for supporting people to quit smoking by using safer nicotine products (SNP) including vaping devices (e cigarettes), heated tobacco products (HTP) and pasteurised oral snus, improving health and reducing deaths by enabling people to use nicotine without the smoke that causes disease.

## 2.

# Select East Asian and ASEAN Country Profiles<sup>5</sup>

#### 2.1 Malaysia

Tobacco use prevalence has been declining since 2000 (Institute for Public Health, 2019). One possible explanation for the decline is the subsequent increase in vaping. 88% of Malaysian vapers who used to smoke cigarettes have successfully quit smoking with the aid of vape (Malaysian Vape Industry Advocacy, 2021). Consumer demand for vaping is growing, alongside the growth of the vape industry by 44% from 2018 to 2019 (Malaysian Vape Chamber of Commerce, 2019).

In terms of regulation, there is no national ban on smoking and vaping in Malaysia, although both are forbidden in Islam by National Fatwa Council. Smoking is prohibited on public transportation, specified public places and air-conditioned workplaces, health, education, government and cultural facilities, while only e-cigarettes containing nicotine or tobacco are prohibited at no smoking zones. In addition, virtually all forms of tobacco advertising, promotion and sponsorship are prohibited in contrast to e-cigarettes, where there are no clear regulations yet. There is a 10% sales tax on tobacco and manufactured tobacco substitutes, and excise duties at varying amounts are levied on cigarettes and other smoking substitutes, electronic cigarette devices and personal electric vaporizing devices, vape gels or juices, and other manufactured tobacco (including heated tobacco products). Legalizing nicotine containing vape and establishing an appropriate regulatory and tax framework for all nicotine alternatives will help further shift consumption from cigarettes to lower risk alternatives.

#### 2.2 Indonesia

In Indonesia, there is no ban on tobacco products. The government regulates tobacco smoking through taxation, issuance of smoke-free places, restriction on advertisements and promotion, and restriction on sale of tobacco products. Since there are several types of cigarettes and different ways to sell them, Indonesia has imposed a tiered tax system for tobacco products (refer Appendix 1). In addition to the existing VAT at 10% and import tariffs, the government had also increased the excise tax for some of the tiers (Southeast Asia Tobacco Control Alliance, 2021b).

<sup>5.</sup> Refer to Appendix 1 for more information on the regulatory framework, taxation and market demand for tobacco and e-cigarettes of every country.

Despite the complex taxation structure, tobacco smoking is still a huge concern in Indonesia, especially youth smoking. Smoking prevalence declined slightly in 2019, but the demand for cigarettes was expected to grow by 3% in 2020 (including factors related to COVID-19, Euromonitor International, 2020a).

Indonesia adds a 57% ad valorem tax on retail price of e-cigarettes and other nicotine alternatives. E-cigarette use is expected to see rapid growth by 2026, but there exists no substantive evidence that e-cigarettes will become a substitute to cigarettes for Indonesian smokers. The government should implement appropriate policies (e.g. lower levels of tax for nicotine alternatives) to incentivize current cigarette smokers to move away harmful products to lower risk alternatives.

#### 2.3 Phillipines

In the Philippines, both tobacco (including heated tobacco products) and e-cigarettes are prohibited at public spaces, with the exception of designated smoking areas for e-cigarettes. The total tax for cigarettes is 50 pesos per 20-pack and will see an increase by 5 pesos each year until 2023. Heated tobacco has tax levy of 25 pesos per 20-pack and will see an increase by 2.50 pesos each year until 2023. Then a 5% increase in tax will be imposed beginning in 2024. As for e-liquids, tax rates are different based on their nicotine composition. The Philippines has thus established a good roadmap, where lower risk nicotine alternatives are taxed lower than cigarettes.

Euromonitor International (2020b) estimated that the sale of cigarettes will contract by 1% in 2020 due to the widespread of COVID-19. E-cigarette consumption is expected to grow over the next five years, following a brief decline due to the COVID-19 pandemic disruption on supply chain and discontinuation of production (6Wresearch, 2020a).

#### 2.4 Japan

Japan is the fifth largest global market for cigarettes and the largest market for heated tobacco products. Due to the COVID-19 pandemic, it is estimated that the sales of cigarettes will decline by 7% in 2020 (Euromonitor International, 2020c, & Single Care, 2021). In Japan, smoke free environment comes with standards for designated smoking areas to 'prevent passive smoking exposure'. This is mostly practiced by private property owners to avoid penalty in the 'effort' to address smoke free places. In general, there is no restriction to smoking in indoor public places, workplaces or public transport. However, a ban had been imposed on April 1 2020 in indoor areas following the country's plan to host the Tokyo Olympic and Paralympic Games.

E-cigarettes containing nicotine are banned. But heated tobacco products are allowed. The

heated tobacco products use prevalence in 2019 was approximately 30% among current smokers either with or without the intention to quit (Tobacco Control Laws, 2020a). The excise tax on most cigarette brands sold amounts to 63% of retail price and on most heated tobacco products sold amounts to 52% of retail price.

The advent of heated tobacco products have resulted in a significant reduction in the use prevalence of cigarettes in Japan. There is an opportunity to accelerate this trend by further reducing the tax levels on heated tobacco products and other nicotine alternatives to make them more affordable to current smokers.

#### 2.5 South Korea

South Korea has a high smoking prevalence, which was 35.7 percent among men and 7.5 percent among women in 2020 (Ock, 2021). This is due, in part, to sociocultural factors such as military smoking (Cho, 2015). Recently, the Korean government began executing various antismoking policies, including raising the tobacco tax rate level from 62.0% to 73.8% of retail price in 2015 (National Tobacco Control Center, n.d.). The government also implemented smoke-free public spaces, bans on tobacco advertisements in stores, and ordered graphical health warnings be placed on all cigarette packages.

Cho et al. (2018) describe that e-cigarettes are essentially regulated as conventional cigarettes, and e-cigarette materials are heavily taxed. E-cigarette use is low and declining among South Koreans, which was around 4 percent in 2015 from 4.7 percent in 2011. According to Euromonitor International, the Korean tobacco market reached 17.19 trillion won (\$16 billion) in 2019. Of the total, 1.89 trillion won was spent on heated tobacco products, which put the country as the second-largest market in the world after Japan<sup>6</sup> (for heated tobacco products). Similar to Japan, there is an opportunity in Korea to accelerate the consumption shift from cigarettes to other nicotine alternatives, by further reducing the tax levels on the latter.

#### 2.6 Others

Broadly, there are several other countries in the East Asia and ASEAN regions (like Taiwan, Singapore, Thailand, Vietnam, Cambodia, Laos) that have either banned or not adequately regulated nicotine alternatives like e-cigarettes and heated tobacco products. These countries should instead make such alternatives available under appropriate regulatory frameworks to encourage current smokers to move away from smoking tobacco to lower risk alternatives.

6. http://www.koreaherald.com/view.php?ud=20200709000774

# **3.**

# International Best Practices for Tobacco and Nicotine Public Policy

We conclude with a discussion of three main guiding points for best-use tobacco policy.

# 3.1 Tobacco-use policy should use more rewards to incentivize behavioral change, tobacco-use punishments (taxes) should be minimized or avoided entirely

Tobacco taxes and other punishments can decrease consumption, but at a gruelingly slow and ineffective rate. Smoking is addictive and empirical evidence shows that smoking behavior persists through even the harshest punishment structures.

The goal of public policy should be to improve the lives of its citizens, and at the same time doing so by respecting their freedom of choice. Taxes and punishments are simply the wrong policies to apply if better public welfare and public health are the goals. Because most smokers continue smoking through higher taxes, the result is that many poor households that smoke are made poorer. And higher tax-induced prices incentivize illicit activities that bring a myriad of negative consequences, including increased inequality.

Better public policy is to provide rewards and support to smokers who want to quit smoking. Strong empirical evidence shows that smokers are more likely to use nicotine replacement therapies, such as nicotine gums and patches, when those products are financially subsidized. And users of NRTs are more likely to quit smoking when they use them. Similarly, eliminating or significantly reducing taxes on lower risk nicotine alternatives can make these more affordable to smokers.

Rewards and informational nudges can be as effecting, if not more effective, than taxes in discouraging smoking. A rewards-based policy approach can achieve the same public health and welfare goals without the nasty side-effects caused by punitive measures.

#### 3.2 Tobacco policy should focus entirely on decreasing tobacco smoking

"People smoke for nicotine, but they die from the tar" – Michael Russell (1976).

Smoked tobacco remains the primary source of nicotine consumption globally. The drug nicotine by itself, while creating its own health risks, remains far less dangerous than smoking – both to smokers and bystanders who are exposed to second-hand smoke.

Any move that successfully encourages individuals to move from smoking tobacco to a less-dangerous alternative will be one that saves lives. These alternatives include e-cigarettes and vaping technologies and heated tobacco products, many of which are still in their infancy when it comes to product development and delivery.

A zero-nicotine policy, therefore, is unlikely to be an effective one at the light of a balanced trade-off analysis, while shifting the way in which it is consumed can produce better results in saving lives, creating healthcare savings and avoiding GDP losses. Thus, instead of banning nicotine alternatives, a better public policy is to make them available under appropriate regulatory frameworks that would encourage smokers to move away from smoking tobacco to lower risk alternatives.

#### 3.3 Tobacco policy should focus on creating an environment that incentivizes innovation

Human beings are remarkably innovative. When faced with a challenge and provided incentives to overcome such a challenge, human ingenuity knows few bounds.

Millions of smokers asked for help to break their deadly habit. Innovators created and released dozens of nicotine replacement products – gums, lozenges, patches, and more – to help those who wanted to quit.

Smokers expressed an interest in continuing to get their nicotine with a similar behavioral and sensory experience, but without many of the harmful products that accompany tobacco smoking. Innovators created and released e-cigarettes and heated tobacco products – to help those who wanted to continue with decreased risk to themselves and others.

We do not know what the next innovation will be. But we can offer policy guidance based on evidence from past innovations. Indeed, for innovations to flourish, a proper institutional environment is key; in her beautiful bourgeois trilogy, McCloskey (2006, 2010 and 2016) explained

that liberty is the most important institutional arrangement that can allow innovation and growth, and – with them – human progress to happen. "What matters is human creativity liberated by liberalism," McCloskey wrote (Sunde, 2019).

In fact, as pointed out by Schumpeter (1911), despite facing an initial hostile environment, innovative entrepreneurs can disrupt the market and change consumers' lives if, through the cultural and economic fight they are called to, they are in the possibility to finally win and enjoy the fruits of victory.

Experimentation and innovation thrive, then, where they are welcomed, encouraged, and incentivized. Barriers and costs hinder experimentation and innovation. In the United States, approval of a new drug for sale on the market takes years and is extraordinarily expensive – an average cost of \$2.6 billion (DiMasi, Grabowski and Hansen, 2016). To encourage the next great innovation – one that will likely save millions of lives each year – public policy should focus on encouraging and incentivizing experimentation, while removing as many barriers as possible from the work needed to create, develop, and sell new products

At this regard, for liberty to be more than a word, a favourable tax regime should be conceived, whereby the consumer could perceive an advantage in shifting his or her habits not only with regard to strictly health-related matters, but financially too. Reduction or elimination of VAT-like taxes and excise taxes on e-cigarettes, heated tobacco products and similar alternatives should be the first step to explore. The decreased fiscal revenues could easily be offset by the reduced healthcare costs and avoided GDP losses. Furthermore, promoting innovation, by promoting growth, can accelerate the pace of wealth creation and therefore bring along additional fiscal revenues generated by the innovation positive spill-over effects.

Experimentation and innovation thrive where they are welcomed, encouraged, and incentivized. Barriers and costs hinder experimentation and innovation. In the United States, approval of a new drug for sale on the market takes years and is extraordinarily expensive—an average cost of \$2.6 billion.

# APPENDIX 1: Current Tobacco and E-Cigarette Policy for Selected East Asian and ASEAN Countries

#### A.1 Malaysia

Regulatory Framework on Tobacco and E-Cigarettes				
DETAILS	TOBACCO	E-CIGARETTES		
Ban & Religious Factor	There is no national ban on smok- ing, although it is forbidden in Islam by National Fatwa Council.	5 states - Terengganu, Kedah, Negeri Sembilan, Johor and Kelantan have banned e-cigarette sales, after National Fatwa Council decided vaping was forbidden in Islam.		
Sale of Products	Sale of tobacco products via vending machines, the internet, small packets of cigarettes, and single cigarettes prohibited.	Sale of e-cigarette liquids containing nicotine are regulated under the Poisons Act and Sale of Drugs Act (can only be sold by licensed pharmacists and registered medical practitioners for medical treatment purposes only).		
Sales Age	Prohibited to perso	ons under the age of 18.		
Smoke Free Places	Smoking is prohibited on public transportation, restaurants or air-conditioned shops, specified public places and air-conditioned workplaces, health, education, government and cultural facilities.	E-Cigarettes containing nicotine or tobacco are prohibited at no smoking zones.		
Adverts & Promotion	Virtually all forms of tobacco advertising, promotion and sponsorship are prohibited.	No clear regulations yet.		

Source: Tobacco Control Laws (2021), Institute for Global Tobacco Control (2021), Control of Tobacco Product (Amendment) Regulations (2018), Control of Tobacco Product (Amendment) Regulations (2015).

#### Taxation on Tobacco, E-Cigarettes and Heated Tobacco under Malaysia's Excise Duties Laws

Excise tax rates are linked to the customs classification of the specific good in Malaysia.

	<u> </u>	
PRODUCTTYPE	H.S. CODE	TAXATION
Cigars, cheroots and cigarillos, containing tobacco	2402.10.00	RM 400.00/kg
Beedies	2402.20.10	RM 7.50 and 5%
Clove cigarettes	2402.20.20	RM 0.40/stick
Cigarettes	2402.20.90	RM 0.40/stick
Cigars, cheroots and cigarillos of tobacco substitutes	2402.90.10	RM 400.00/kg
Cigarettes of tobacco substitutes	2402.90.20	RM 0.40/stick
Other manufactured tobacco	2403.99.90.90	RM 778.00/kg of tobacco content
Preparation of a kind used for smoking through electronic cigarette and electric vaporising device, in form of liquid or gel, not containing nicotine	3824.99.99.10	RM 0.40/ml
Electronic cigarettes and similar personal electric vaporising devices	8543.70.90.10	10%

Source: Excise Duties Order 2017, Excise Duties (Amendment) Order 2018, Excise Duties (Amendment) Order 2020.

In addition to the excise duties imposed on electronic cigarettes starting from 2021 onwards, local manufacturers are licensed under Section 20 of the Excise Act 1976 with a licence payment of RM4,800 a year, while warehouse licence fees under Section 25 of the same act was RM2,400 a year.

Market Demand and Trends				
DETAILS TOBACCO E-CIGARETTES				
Prevalence among adults age 15 and above (2019)	21.3% (4.88 million)	4.9% (1.12 million)		
Trend in Demand	Dropped marginally from 22.8% (2015) and 23.1% (2011)	On an Upward Trend		

Source: Institute for Public Health (2019), Code Blue (2020).

<sup>7.</sup> https://lom.agc.gov.my/search.php?search=excise+duties+2018&type=all&sorting=sort&lookup=all

<sup>8. &</sup>lt;a href="https://lom.agc.gov.my/search.php?search=excise+duties+2018&type=all&sorting=sort&lookup=all">https://lom.agc.gov.my/search.php?search=excise+duties+2018&type=all&sorting=sort&lookup=all</a>

<sup>9.</sup> https://lom.agc.gov.my/search.php?search=excise+duties+2018&type=all&sorting=sort&lookup=all

#### A.2 Indonesia

Regulatory Framework on Tobacco and E-Cigarettes				
DETAILS	ТОВАССО	E-CIGARETTES		
Legislation	Indonesia is not a party to the WHO Framework Convention on Tobacco Control.	Indonesian Food and Drug Administration (FDA) declared e-cigarettes as dangerous products, but there is no specific regulation yet.		
Sale of Products	Sale of tobacco products via vending machines is prohibited. Sale of tobacco is also prohibited at educational facilities, playgrounds, health-care facilities, places of worship, and public transportation facilities. There are no restrictions on internet sales and the sale of single cigarettes.	No national law restricting sale of e-cigarettes.		
Sales Age	Sale is prohibited to persons under 18 of age.	No age verification is needed for online sales.		
Smoke Free Places	Smoking is prohibited in public transport and in public places, such as healthcare facilities, educational facilities, playgrounds, and places of worship.  In other public spaces and workplaces, designated smoking areas must be provided.  Smoke-free areas are under the laws of local governments, not the national government.			
Adverts & Promotion	Although advertising on TV and radio can take place between the hours of 2130 and 0500 local time, advertisements cannot display cigarettes, shape of cigarettes, tobacco product branding, or smoking. There are restrictions on print and outdoor advertising. There is prohibition against distribution of free and discounted tobacco products, including prize awards and sponsorships.	No national law restricting advertising, promotion, and sponsorships.		

Source: Tobacco Control Laws (2019), Pratiwi and Pangestu (2020), Fauzi and Areesantichai (2020).

Even though there are no national restrictions yet, there are laws on some subnational jurisdictions that restrict the use of e-cigarettes where smoking is prohibited, and advertising, promotion, and sponsorships of e-cigarette (Tobacco Control Laws, 2019).

Nicotine-containing e-cigarettes are regarded as "other processed tobacco" or products that contain "essence of tobacco". Meanwhile, non-nicotine e-cigarettes are considered consumer products (Global Tobacco Control, 2021).

Juul, an e-cigarette company, has halted its sales in Indonesia due to the country's largely unregulated tobacco market (Kirkham, Potkin and Morales, 2020).

Taxation on Tobacco, E-Cigarettes, and Heated Tobacco			
PRODUCT TYPE	TAXATION		
Cigarette (general)  Machine made kretek  Machine made white cigarette  Handmade kretek	<ul> <li>Excise tax system divided into 10 tiers, which are based on the type of cigarette, the scale of cigarette production, and per unit retail price</li> <li>Value Added Tax (VAT) at 10%</li> <li>40% import duty if imported from outside ASEAN + China</li> <li>Local cigarette tax at 10% of excise tariff</li> </ul>		
E-cigarettes	<ul> <li>57% ad valorem excise tax on the retail price of e-cigarette liquid</li> <li>VAT</li> </ul>		
Heated tobacco	<ul> <li>57% ad valorem excise tax on the retail price of heated tobacco</li> <li>VAT</li> </ul>		

Source: Global Tobacco Control (2021), Southeast Asia Tobacco Control Alliance (2021a), Marquez (2018), Indonesia's Ministry of Finance Decree No. 198/PMK.010/2020.

Indonesia has a complicated tiered specific (per stick) cigarette excise tax system with different tax rates applied on different tobacco products based on type of tobacco product, method of production, production volumes, and banderol price (Southeast Asia Tobacco Control Alliance, 2021a).

On average, tobacco tax as a percentage of retail prices in Indonesia is 63.50%, after the 12.5% increase of average excise duty (Sihombing, 2020

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Comparison between 2020 and 2021 Cigarette Excise Tax Rates						
Cincumble True	Tion	Production		Excise Tax (IDR/Stick)		lia aka a a a (9/)
Cigarette Type	Tier	(Billion Stick)	Share (%)	2020	2021	Increase (%)
	I	163.4	54.8	740	865	16.9
Machine made kretek	IIA	13.5	4.5	470	535	13.8
	IIB	40.2	13.5	455	525	15.4
	I	6.6	2.2	790	935	18.4
Machine made white cigarette	IIA	2.7	0.9	485	565	16.5
0.94 0.00	IIB	2.2	0.7	470	555	18.1
	IΑ	10.8	3.6	425	425	0.0
Handmade kretek	ΙB	26.9	9.0	330	330	0.0
		4.4	1.5	200	200	0.0
	III	27.7	9.3	110	110	0.0

Source: Southeast Asia Tobacco Control Alliance (2021a).

Retail selling price and excise tariffs for Other Tobacco Products (OTP)

#### (including e-cigarettes and heated tobacco) **MINIMUM RETAIL EXCISE** NO. TYPES OF OTP UNIT **SELLING PRICE TARIFF** Extracts and Tobacco Essence. in the form of Rp1,350.00 (one thousand three a. Sticks Per stick hundred and fifty rupiah) 1. b. Cartridge Rp30,000.00 (thirty thousand rupiah) Per cartridge Rp1,350.00 (one thousand three c. Capsule Per capsule hundred and fifty rupiah) 57% (fift seven percent) Rp666.00 Per milliliter d. Liquid (six hundred and sixty-six rupiah) Rp175.00 2. Molasses Tobacco Per gram (one hundred seventy-five rupiah) Rp175.00 3. Inhaled Tobacco Per gram (one hundred seventy-five rupiah)

Source: Indonesia's Ministry of Finance Decree No. 198/PMK.010/2020

Per gram

Rp175.00

(one hundred seventy-five rupiah)

Chewed Tobacco

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Market Demand and Trends				
DETAILS	DETAILS TOBACCO			
Prevalence among population	31.03% or approximately 60.5 million of population aged 15 and above (2018)	About 900,000 consumers (2018)		
Trend	Slight decline in prevalence in 2019 from 2015 despite high excise tax	Expected to register sound growth until 2026		
	<ul> <li>Local demand rose from 127,000 tons to 197,000 tons in 2019</li> </ul>	grow a rantal 2020		

Source: Wolff (2019), Tobacco Control Laws (2019), WHO (2019a), Pratiwi and Pangestu (2020), Potkin and Kirkham (2018), 6WResearch (2020b).

Underage cigarette smoking is a huge issue in Indonesia where one in five children aged between 13 and 15 smoke (Wibawa, 2019).

In 2020, sales of cigarettes are expected to grow by 3% in constant 2019 value terms due to COVID-19 (Euromonitor International, 2020a).

Rechargeable e-cigarettes are expected to witness the highest growth rate in the upcoming years (6WResearch, 2020a).

#### **A.3 The Philippines**

Regulatory Framework on Tobacco and E-Cigarettes				
DETAILS	TOBACCO	E-CIGARETTES & HEATED TOBACCO		
Legislation	The Republic Act No. 9211 (Tobacco Regulation Act of 2003) regulates the law on smoking in public places, advertising, promotion and sponsorship, and sales restrictions.	<ul> <li>E-cigarettes and heated tobacco are regulated under Executive Order No. 106 (2020).</li> <li>E-cigarettes and heated tobacco are classified as "Vapor Products" and "Heated Tobacco Products," respectively, for excise tax purposes under "Chapter IV - Excise Tax on Tobacco Products, Heated Tobacco Products, and Vapor Products" of the National Internal Revenue Code of the Philippines.</li> </ul>		

Regulatory Framework on Tobacco and E-Cigarettes					
DETAILS	TOBACCO	E-CIGARETTES & HEATED TOBACCO			
Sale of Products	<ul> <li>The sale or distribution of tobacco products is prohibited within one hundred (100) meters from any point of the perimeter of a school, public playground or other facility frequented particularly by minors under Section 10 of Republic Act No. 9211. Sales through vending machine is only allowed if there is a mechanism for age verification (Section 7, Republic Act No. 9211).</li> <li>Not prohibited on sales via internet or single cigarettes.</li> </ul>	<ul> <li>Sale of e-cigarettes are allowed. What is prohibited is the sale of unregistered or adulterated e-cigarettes.</li> <li>Department of Health Administrative Order No. 2020-0055 was issued in December 2020. The order is called "Regulation on Vapor Products and Heated Tobacco Products (HTPs) under the Food and Drug Administration (FDA)." The order sets out the requirements for entities that intend to manufacture, import, export or sell vapor products and heated tobacco.</li> <li>Under Executive Order No. 106 (2020), it is prohibited to sell or distribute e-cigarettes in a school, public playground, youth hostels, recreational facilities for minors, areas frequented by minors, or within 100 meters from such places.</li> <li>Allowed online sales via internet with market authorisations.</li> </ul>			
Sales Age	Sale is prohibited to persons under 18 of age.	Sale is prohibited to persons under 21 of age.			

Regulatory Framework on Tobacco and E-Cigarettes				
DETAILS	TOBACCO	E-CIGARETTES & HEATED TOBACCO		
Smoke Free Places	Prohibits smoking at public places and workplaces such as healthcare and educational institutions, government facilities, facilities frequented by minors, public land transport, aircraft, public transport terminals.	Vaping within enclosed public places and public conveyances except in designated vaping areas is prohibited under Executive Order No. 26 (2017).		
Advertising, Promotion and Sponsorship	<ul> <li>Prohibits all forms of advertising in mass media except at the point of sale.</li> <li>Examples: domestic TV, radio, newspaper, magazines, other print media, internet advertising, outdoor advertising, and paid placement of tobacco products in TV, film or other media.</li> </ul>	Placing, posting or distribution of ads and promotional materials are not allowed in areas where their sale is prohibited.		

Source: Tobacco Control Laws (2020a), Global Tobacco Control (n.d.a), WHO (2019b), Executive Order No. 26 (2017)<sup>10</sup>, Executive Order No. 106 (2020)<sup>11</sup>, Department of Health Administrative Order No. 2020-0055 (2020)<sup>12</sup>.

<sup>10.</sup> https://www.officialgazette.gov.ph/downloads/2017/05may/20170516-EO-26-RRD.pdf.

<sup>11.</sup> https://www.officialgazette.gov.ph/downloads/2020/02feb/20200226-EO-106-RRD.pdf.

<sup>12.</sup> https://www.fda.gov.ph/wp-content/uploads/2021/01/Administrative-Order-No.-2020-0055.pdf.

Taxation on Tobacco, E-Cigarettes, and Heated Tobacco					
ТОВАССО	HEATED TOBACCO	E-CIGARETTES			
Excise tax levy of     50.00 pesos per pack     of 20 cigarettes	• Tax levy of 27.50 pesos per	Different tax rates apply based on their nicotine composition— nicotine salt liquids and freebase nicotine liquids.			
The tax will increase by 5.00 pesos each year until 2023.	<ul><li>pack of 20 units.</li><li>The tax will increase by 2.50 pesos/20 pack/unit each</li></ul>	Nicotine salt e-liquids – excise tax of 42.00 pesos per ml			
A 5% annual increase in excise tax will be imposed from 2024	<ul> <li>year until 2023.</li> <li>A 5% annual increase in tax will be imposed from 2024</li> </ul>	<ul> <li>Freebase nicotine e-liquids – 50.00 pesos per 10 ml</li> <li>The tax will increase by 5.00</li> </ul>			
<ul><li>onwards.</li><li>Value added tax (VAT) or sales tax is at 12%.</li></ul>	onwards.	pesos each year until 2023.  • A 5% annual increase will be imposed from 2024 onwards.			

Source: Tobacco Control Laws (2020c), Global Tobacco Control (n.d.a), WHO (2019b), National Internal Revenue Code of the Philippines<sup>13</sup>.

Market Demand and Trends					
DETAILS	S TOBACCO E-CIGARETTES				
Prevalence among population	24.1% (17.4 million)	Approximately 1 million			
Trend in Demand	Decreasing due to tax	Growing trend			

Source: WHO (2019c), Inquirer.net (2020).

An estimation was made that the increase of tobacco excise tax to 60 pesos per pax will decrease cigarette consumption by 16.8% (Philippines News Agency, 2019).

It is estimated that the sale of cigarettes will contract by 1% in 2020 due to the widespread of COVID-19 (Euromonitor International, 2020b).

The market for e-cigarettes is expected to see growth during 2020-2026. However, is it estimated to see a decline due to the COVID-19 pandemic disruption on supply chain and discontinuation of production (6Wresearch, 2020a).

<sup>13.</sup> https://www.bir.gov.ph/index.php/tax-code.html#title6.

#### A.4 Japan

Regulatory Framework on Tobacco, E-Cigarettes, and Heated Tobacco				
DETAILS	TOBACCO	E-CIGARETTES		
Legislation	<ul> <li>The Industrial Safety and Health Act and the Health Promotion Act provides the smoke free guidance.</li> <li>The smoke free environment also comes with standards for designated smoking areas to "prevent passive smoking exposure" (Health Promotion Act, Article 25).</li> </ul>	<ul> <li>No regulation for non-nicotine e-cigarettes.</li> <li>However, non-nicotine e-cigarettes are regulated under the Japanese pharmaceutical affairs law of 2010 since it is classified as medicinal products. No medicinal e-cigarettes have been approved.</li> <li>Nicotine e-cigarettes are under the medicine and medical equipment category within the Pharmaceutical Affairs Act.</li> </ul>		
Sale of Products	No ban on sales through the internet or vending machines, and sale of single cigarettes or small packets cigarettes.	<ul> <li>Banned sale of nicotine e-cigarettes but heated-to-bacco products (HTPs) are legal.</li> <li>Non-nicotine e-cigarettes are made available to everyone.</li> <li>HTPs are restricted to persons aged below the age of 20.</li> </ul>		
Sales Age	Prohibited by the law to anyone under the age of 20			

Regulatory Framewo	rk on Tobacco, E-Cigarettes	, and Heated Tobacco
Smoke Free Places	<ul> <li>Prohibits smoking only as a requirement for property owners, managers or employers' 'effort' to address smoke free places (to avoid penalty).</li> <li>Generally, smoking is not restricted or prohibited in indoor public places, workplaces or public transport.</li> <li>Starting 1 April 2020, indoor smoking is banned to protect passive smokers following the plan to host the Tokyo Olympic and</li> </ul>	No clear regulations yet.
	Paralympic Games.	
Advertising, Promotion and Sponsorship	<ul> <li>No form of prohibition for advertising, promotion and sponsorship.</li> <li>Prohibition is only based on "industry self-regulation" following the Tobacco Business Act.</li> </ul>	Advertisement of medicinal products must be regulated under the Pharmaceutical Affairs Act.

Source: Tobacco Control Laws (2020b), Global Tobacco Control (n.d.b), WHO (2019d), Kuwabara et al. (2020), National Consumer Affairs Center of Japan (2013), Nippon (2020).

The Tobacco Business Act (1984) defines tobacco products as those entirely or partially made of tobacco leaves and made for smoking, chewing or sniffing. Hence, for regulatory purposes, heated tobacco is covered by the Tobacco Business Act (Business Wire, 2021). But some cities have created different rules when it comes to the use of heated tobacco. For instance, in Tokyo, customers can use heated tobacco inside restaurants (Tarrant, 2020; Live Japan, 2020).

Market Demand and Trends		
PRODUCT	DEFINITION	
Cigarettes	A manufactured tobacco wrapped in paper or other non-tobacco containing materials.	
Cigars	A manufactured tobacco wrapped in paper or other non-tobacco containing materials.	

	Market Demand and Trends
Pipe Tobacco	A manufactured tobacco for pipe use consisting of chopped tobacco or tobacco containing material (includes manufactured tobacco other than cigarettes, cigars and heated tobacco).
Chopped Tobacco	A manufactured tobacco for use in a kiseru pipe consisting of tobacco chopped to less than 0.3mm in width that does not contain additives such as fragrances (excluding items corresponding to cigarettes, cigars or heated tobacco).
Heated Tobacco	A manufactured tobacco manufactured into a state where tobacco components are able to be smoked through inhalation by heating tobacco or tobacco containing items (including heating by heating water or other articles) without burning (excluding tobacco manufactured for smoking by water pipes).
Tobacco for Chewing	Refers to manufactured tobacco that is thinly shredded for use in chewing
Tobacco for Snuffing	Refers to manufactured tobacco that is dried and powdered for use in snuffing

Source: Notification of Decree Interpretation of the Japanese Tobacco Tax Code.

#### Taxation on Tobacco, E-Cigarettes, and Heated Tobacco

All tobacco products sold in Japan are subject to the national tobacco excise tax, national tobacco special excise tax, and local tobacco excise tax.

Nicotine-containing e-cigarettes are classified as medical products and no e-cigarettes have been approved for sale in Japan. Non-nicotine e-cigarettes are not regulated and currently not taxable.

Japan is the leading market for heated tobacco (Odani and Tabuchi, 2021). Heated tobacco was previously classified as "pipe tobacco" for tax purposes. The excise tax was calculated through weight conversion to cigarette units (JTI, 2020). In 2018, the Japanese government created a new taxation category for heated tobacco. The tax is calculated using a conversion method based on the weight of the tobacco in the product and retail price.

The government decided to gradually transition to the new taxation system. So from 2018 to 2022 the ratio of the conversion method under the former taxation system is going to be grad-

ually reduced and the ratio of the conversion method under the new taxation system is going to be gradually increased (JTI, 2020).

TOBACCO	E-CIGARETTES	HEATED TOBACCO
<ul> <li>Taxation</li> <li>Excise tax of JPY 14.244/ stick until Sep 30, 2021. Excise tax will increase to JPY 15.244/stick starting Oct 1, 2021.</li> <li>Consumption tax of 10%.</li> </ul>	Taxation  Non-nicotine e-cigarettes are presently not taxable.	Taxation  • Heated tobacco excise tax is being phased in over a five-year period (2018-2022), with the third year reflecting 40% of the previous system (pipe tobacco category) and 60% of the new system (heated tobacco category).

Source: Tobacco Control Laws (2020d), Global Tobacco Control (n.d.b), WHO (2019d), The Jakarta Post (2018), Global Tobacco Index (2020), Japan Customs (2021), JTI (2020), PMI (2021).

Market Demand and Trends			
DETAILS	TOBACCO	E-CIGARETTES (HTPs)	
Prevalence among adults aged 15 and above (2019).	19.4% (21.3 million)	11.3% (14.3 million)	
Distribution of tobacco consumption (2019)	72% (of smokers)	20.3% (of smokers)	

Source: WHO (2019c), Hori, Tabuchi and Kunugita (2020), Diep (2021).

The HTP use prevalence in 2019 was approximately 30% among current smokers either with or without the intention to quit (Tobacco Control Laws, 2020b).

It is estimated that the sales of cigarettes will decline by 7% in 2020 due to the COVID-19 pandemic. However, in May 2020, four production factories by Japan Tobacco continued operation with no significant distribution problems (Euromonitor International, 2020c).

#### A.5 South Korea

Regulatory	Framework on Tobacco and	E-Cigarette	
DETAILS	TOBACCO	E-CIGARETTE	
Legislation	<ul> <li>National Health Promotion Charges is imposed to create the National Health Promotion Act Article 25, a fund for public health policies.</li> <li>Warning photos such as black lungs are mandatory on cigarette packs.</li> <li>Indication of major ingredients and contents on wrapping paper</li> </ul>	<ul> <li>Government advises against the use of e-cigarettes due to health concerns and investigates to ban e-cigarettes.</li> <li>South Korean Army bans the use and possession of e-liquids on its bases.</li> </ul>	
Sale of Products	No clear regulations on how and where tobacco products can be sold.	No clear regulations on how and where tobacco products can be sold.	
Sales Age	Sale is prohibited to minors (unde	er 19 years in Korea)	
Smoke Free Places	<ul> <li>Complete smoke-free laws exist in these places:         <ul> <li>Healthcare facilities</li> <li>educational facilities except universities</li> </ul> </li> <li>Smoking is not allowed at restaurants, cafes, or bars:</li> </ul>	Use of e-cigarettes is banned in public places and public transport, except in designated smoking areas.	
Adverts & Promotion	<ul> <li>Ban on direct tobacco advertising on: <ul> <li>Billboards and outdoor advertising</li> <li>Internet advertising</li> </ul> </li> <li>Ban on promotional discounts.</li> <li>Ban on advertising in convenience stores.</li> <li>Ban against tobacco companies sponsoring cultural or sport events.</li> </ul>	Nicotine-containing e-cigarette:  Packaging and advertise-ments must include health warning texts that they contain harmful substances.  Can only be featured a maximum of 10 times per magazine per year.	

Source: Global Tobacco Control (n.d.c), WHO (2019e), Kim (2015), Kim (2014), Cha (2019), Caruana (2020)

Regulatory Framework on Tobacco and E-Cigarette		
DETAILS	TOBACCO	
	Tobacco taxes in Korea consist of specific excise taxes and value added tax (VAT).	
Cigarettes	Tax rates on different kinds of tobacco products are set by converting each unit into an equivalent in terms of a pack of cigarettes	
	Tobacco excise tax – KRW 1,007/pack	
Tobacco products other than		
cigarettes:	Heated tobacco products are taxed per 20 sticks	
<ul> <li>Heated tobacco product (per 20 sticks)</li> </ul>	Tobacco excise tax – KRW 897 per 20 sticks	
• E-cigarette liquids	E-cigarettes are taxed per ml of nicotine solution  Tobacco excise tax – KRW 628/ml	

Source: Choi (2018).

Market Demands and Trends			
DETAILS	TOBACCO	E-CIGARETTE	
Prevalence among population	<ul> <li>21.2% or approximately 9.3 million of population aged 15 years or older (2018).</li> <li>35.7% among men and 7.5% among women in 2020.</li> </ul>	Around 1% – 3% of total population aged 18 or above (predicted at 2020)	

Source: WHO (2019e), Cho, Dutra and Glantz (2018), Ock (2021).

Sales of cigarettes are declining as more smokers become users of multiple tobacco products. At the same time, consumers are leading a healthier lifestyle and the government is campaigning against smoking, causing a downward trend for both smoking population and prevalence in Korea (Euromonitor International, 2020d).

There is increasing demand for flavour capsule cigarettes with many smokers looking for ways to reduce the unpleasant smell of smoke (Euromonitor International, 2020d).

In 2020, sales of cigarettes are expected to decline by 1% due to COVID-19, lower than 5% decline in 2019 (Euromonitor International, 2020d).

From USD874.3 million in 20 by 2024 at a 24.3% CAGR du 2019).		

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