

# Discussion Paper Series

IZA DP No. 18747

June 2026

## The Structural Design of Tobacco Control and the Shadow Economy: Revenue Integrity and Illicit Tobacco Trade in Selected ASEAN Countries

**Friedrich Schneider** 

Johannes Kepler University  
and IZA@LISER

**Alban Asllani** 

University of East London

The IZA Discussion Paper Series (ISSN: 2365-9793) ("Series") is the primary platform for disseminating research produced within the framework of the IZA@LISER Network, an unincorporated international network of labour economists coordinated by the Luxembourg Institute of Socio-Economic Research (LISER). The Series is operated by LISER, a Luxembourg public establishment (établissement public) registered with the Luxembourg Business Registers under number J57, with its registered office at 11, Porte des Sciences, 4366 Esch-sur-Alzette, Grand Duchy of Luxembourg.

Any opinions expressed in this Series are solely those of the author(s). LISER accepts no responsibility or liability for the content of the contributions published herein. LISER adheres to the European Code of Conduct for Research Integrity. Contributions published in this Series present preliminary work intended to foster academic debate. They may be revised, are not definitive, and should be cited accordingly. Copyright remains with the author(s) unless otherwise indicated.



---

# The Structural Design of Tobacco Control and the Shadow Economy: Revenue Integrity and Illicit Tobacco Trade in Selected ASEAN Countries\*

## Abstract

Illicit tobacco trade poses a major challenge to revenue integrity, public health policy and state capacity across Southeast Asia. While policy debates often link illicit tobacco markets to high excise tax rates, this paper argues that illicit trade is better understood as a structural governance problem shaped by the interaction between tax design, regulation and enforcement capacity. Focusing on six ASEAN economies — Indonesia, Malaysia, the Philippines, Singapore, Thailand and Vietnam — the paper develops a three-pillar framework centred on excise tax structure, regulatory oversight and enforcement systems. The analysis shows that the illicit tobacco trade does not follow a uniform regional pattern. Indonesia is characterised by domestic evasion and informal production; Malaysia and Thailand by cross-border smuggling and price differentials; the Philippines by the benefits and limits of excise reform; Singapore by persistent external supply pressure despite strong enforcement; and Vietnam by brand-specific illicit demand rooted in historical policy choices. The findings suggest that excise taxation alone cannot address the illicit tobacco trade. Effective control requires predictable, administratively simple tax systems, enforceable regulatory frameworks, stronger supply chain and retail controls, and intelligence-led enforcement supported by cross-border cooperation.

## JEL classification

H26, H21, K42, O17

## Keywords

illicit tobacco trade, excise taxation, shadow economy, revenue integrity, tobacco control, ASEAN

## Corresponding author

Friedrich Schneider

[friedrich.schneider@jku.at](mailto:friedrich.schneider@jku.at)

---

\* *Disclosure Statement:* The authors report there are no competing interests to declare.

*Funding Declaration:* This work was carried out without financial support from any funding agency, commercial or not-for-profit.

---

## 1. Introduction

In many low- and middle-income economies, excise taxation remains a key component of domestic revenue mobilisation and an important policy instrument for regulating the consumption of selected goods, including tobacco. When appropriately designed, excise systems can provide stable and predictable revenue streams while supporting public health objectives. Their effectiveness, however, depends fundamentally on the internal coherence of the system - specifically, the alignment between the tax base, rate structure, minimum safeguards, and the administrative capacity required for enforcement. Where such coherence is lacking, excise regimes become susceptible to avoidance and evasion, with implications that extend beyond immediate revenue losses.

Illicit trade in tobacco products is among the most visible indicators of structural weaknesses in excise systems. Across regions, such trade erodes the tax base, distorts competitive conditions, and generates sustained revenue streams for organised criminal activity. Empirical estimates further indicate that illicit cigarette markets reduce average retail prices by around 4% and increase overall cigarette consumption by approximately 2%.<sup>1</sup> These market-level effects are particularly pronounced in emerging and developing economies, where they translate into broader socio-economic and fiscal outcomes. Persistent illicit markets are associated with constrained fiscal space, weaker provision of essential public services - including healthcare and education - and heightened distributional pressures, as the effective tax burden shifts toward compliant taxpayers.<sup>2</sup>

The experience of countries within the Association of Southeast Asian Nations (ASEAN) provides a particularly relevant setting in which to examine these dynamics. The region is characterised by high smoking prevalence, considerable heterogeneity in excise tax structures, and extensive cross-border trade facilitated by porous borders. While several ASEAN economies rely heavily on tobacco excises as a source of indirect tax revenue, many continue to face substantial illicit market penetration. These dynamics carry significant fiscal implications: governments in the region are estimated to lose USD 3.69 billion annually to illicit tobacco, equivalent to 18.2% of total tobacco excise revenue, amounting to roughly 7.6% of healthcare expenditure and 3.6% of education budgets.<sup>3</sup>

Policy discussions frequently present the illicit tobacco trade as an inevitable consequence of higher excise taxes.<sup>4</sup> Although high retail prices influence incentives for smuggling and evasion, this perspective risks failing to distinguish between tax levels and tax structure.<sup>5</sup> Evidence from ASEAN and other regions indicates that illicit activity tends to be more persistent in systems characterised by wide price dispersion between licit and illicit products, weak or absent minimum tax floors, a heavy reliance on ad valorem excise components, or frequent discretionary excise rate adjustments that reduce predictability.<sup>6,7,8</sup> Under such conditions, complex structures may inadvertently create arbitrage opportunities that exceed administrative capacity, thereby facilitating the expansion of informal and illegal supply chains.

From a public finance perspective, the core challenge is fundamentally structural. The effectiveness of excise systems depends on tax bases that are readily observable, resistant to manipulation, and resilient to shifts in consumption toward lower risk (and lower taxed) alternatives and to cross-border price differentials. Where excise regimes are designed to serve multiple, and at times competing, objectives - particularly in environments with limited enforcement capacity - their performance in terms of both revenue generation and policy effectiveness tends to deteriorate. Against this analytical backdrop, a select group of ASEAN countries -

---

<sup>1</sup> World Bank. (2019). *Confronting illicit tobacco trade: A global review of country experiences*.

<sup>2</sup> UN Conference on Trade and Development. (2025). *Tracking illicit financial flows for effective action*.

<sup>3</sup> Ferlito, C. (2025). *Illicit tobacco trade and fiscal losses in ASEAN: A comparative analysis (Policy Brief No. 2)*.

<sup>4</sup> World Bank. (2019). *Confronting illicit tobacco trade: A global review of country experiences*.

<sup>5</sup> International Monetary Fund. (2019). *Fiscal policies for health promotion*.

<sup>6</sup> Chaloupka, F. J., Powell, L. M., & Warner, K. E. (2019). *The use of excise taxes to reduce tobacco, alcohol, and sugary beverage consumption*.

<sup>7</sup> Cnossen, S. (2006). *Tobacco taxation in the European Union*.

<sup>8</sup> Cnossen, S. (2020). *Excise taxation for domestic resource mobilization*.

Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Vietnam - offers a useful cross-section for examining the interaction between excise tax design and illicit tobacco trade. These cases capture substantial variation in market scale, price dispersion, enforcement capacity and historical policy choices, while collectively representing a significant share of regional tobacco excise revenues and losses. They also allow the paper to compare different mechanisms through which illicit tobacco trade persists: domestic evasion, cross-border smuggling, retail-level compliance gaps, price differentials and the legacy effects of earlier regulatory choices.

The six country cases are therefore used to illustrate different forms of exposure to the illicit tobacco trade, rather than to present ASEAN as a uniform market. Indonesia, the region's largest economy, illustrates how sizeable absolute fiscal losses can arise even where the illicit market share appears relatively moderate. Despite illicit cigarettes accounting for roughly 13.9% of consumption in 2025, estimated fiscal losses reach 42.0 trillion rupiah, corresponding to 27.5% of tobacco excise revenue in 2018.<sup>9</sup>

Malaysia represents an extreme case of structural vulnerability, where large price gaps between legal and illicit cigarettes - exacerbated by a steep excise increase in 2015 (by 42.8%) - have been associated with the region's highest illicit market share, estimated at around 55% of consumption in 2024.<sup>10,11</sup> Following the 2015 tax hike, the gap between potential excise revenue (given observed consumption) and excise actually collected sharply widened, with foregone revenue rising from approximately 42% in 2015 to 63% in 2019, underscoring how excise design and adjustment paths can overwhelm enforcement capacity.<sup>12,13</sup>

The Philippines is included as a major tobacco-consuming economy with a long-standing reliance on excise taxation for both revenue generation and health financing. The 2012 sin tax reform fundamentally restructured the cigarette excise tax system, eliminated tiered pricing, and earmarked a substantial share of revenues for universal health coverage.<sup>14</sup> Subsequent experience shows that, while structural reform significantly strengthened revenue performance, persistent illicit trade remains closely linked to tax increases, reduced affordability, enforcement gaps and institutional coordination challenges.<sup>15</sup>

Singapore provides a high-capacity enforcement benchmark within the ASEAN region. Its excise system is characterised by very high statutory tax levels, stringent penalties, and highly effective border controls coordinated across customs, immigration, and law-enforcement agencies.<sup>16</sup> While illicit trade has not been eliminated (at 7.0% as of 2024) - reflecting strong price incentives created by large cross-border differentials - its scale and organisation differ markedly from lower- and middle-income peers. Singapore's example helps illustrate how excise design and enforcement capacity interact under conditions of exceptionally strong administrative effectiveness, while also showing that the regulation of prohibited or emerging nicotine products requires careful consideration if enforcement burdens are not to increase further.<sup>17</sup>

Thailand provides a case in which illicit trade imposes substantial fiscal and social costs relative to excise collections and public spending despite comparatively strong administrative institutions. Annual losses are estimated at USD 0.56-0.92 billion (approximately 0.11% of GDP), equivalent to roughly 39% of total tobacco excise revenue, 12% of healthcare expenditure, and 6% of education spending.<sup>18,19</sup>

---

<sup>9</sup> Kasri, R. et al (2021). *New evidence of illicit cigarette consumption and government revenue loss in Indonesia*.

<sup>10</sup> In 2025, legal cigarettes cost (\$4.60) and illicit ones are as low as (\$0.75) (Tobacco Reporter (nd). *Illicit Cigarettes Threaten Malaysia's Micro-Businesses*).

<sup>11</sup> Ferlito, C. (2025). *Illicit tobacco trade and fiscal losses in ASEAN: A comparative analysis* (Policy Brief No. 9).

<sup>12</sup> Taxation of cigarettes changed from a mixed duty system of 20% of the sales value plus MYR0.28 per stick, to a totally specific tax of MYR 0.40 per stick (World Bank (2019). *Malaysia: Addressing the illicit flow of tobacco products. Technical report of the World Bank Group Global Tobacco Control Program*).

<sup>13</sup> Koya et al. (2022). *Measuring Malaysia's illicit tobacco trade*. *Journal of Illicit Economics and Development* 4(1).

<sup>14</sup> World Bank. (2019). *Confronting illicit tobacco trade: A global review of country experiences - Philippines case study*.

<sup>15</sup> Arda, J. R. Y., & Santiago, A. J. A. (2023). *Strengthening policies and structures to combat illicit tobacco trade in the Philippines*.

<sup>16</sup> Ministry of Finance, Singapore. (2017). *Enforcement actions against illegal sale of contraband cigarettes*.

<sup>17</sup> Yusof, Z. M. (2025). *Number of seized contraband cigarettes remains high*.

<sup>18</sup> Ferlito, C. (2025). *Illicit tobacco trade and fiscal losses in ASEAN: A comparative analysis* (Policy Brief No. 9).

<sup>19</sup> The Nation (2026). *Thailand loses nearly Bt30bn a year as illegal tobacco market surges*.

Lastly, Vietnam offers insight into the persistence of illicit trade rooted in historical policy choices. Illicit cigarettes accounted for an estimated 23% of consumption in 2017, generating annual fiscal losses of roughly USD 223-295 million. The market is dominated by premium foreign brands, which account for around 85% of illicit sales and remain attractive to higher-income consumers despite prices approximately 51% above domestic legal cigarettes.<sup>20</sup> Earlier import bans played a central role in embedding these smuggling networks, with effects that continue to shape market structure and compliance outcomes.

Taken together, this paper analyses the relationship between excise tax design and illicit tobacco trade in selected ASEAN economies, with particular attention to how tax structures, regulatory systems and enforcement capacities interact. The purpose is not to identify a single optimal level of taxation, but to examine how the composition of excise instruments, the presence or absence of minimum safeguards, affordability pressures, and enforcement capacity shape exposure to the shadow economy. Drawing on regional patterns and selected country case studies, the paper illustrates the premise that excise taxation alone cannot eliminate illicit trade. Complementary measures - such as strengthened border controls, effective customs administration, and robust anti-corruption frameworks - remain essential.

The remainder of the paper is structured as follows. Section 2 frames illicit tobacco trade in ASEAN as a challenge of state capacity, where gaps in implementation, coordination, and enforcement, rather than legal design alone, shape the persistence of illicit activity. It reviews key regional patterns, including illicit source, transit, and destination flows, as well as the role of free trade zones. It also examines the broader policy and enforcement framework, identifying common weaknesses alongside regional-level policy priorities. Section 3 provides country-level analyses for select economies - Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Vietnam. This section examines how excise design, regulatory frameworks, and enforcement capacity interact in each case, and draws out country-specific policy implications. Section 4 concludes.

## 2. ASEAN regional context

### 2.1. Mapping sources, transit, and destination patterns

Illicit tobacco markets across the ASEAN region do not conform to a uniform pattern. Rather, they differ systematically across countries depending on the dominant source of illicit supply - whether driven by domestic tax evasion and informal production, cross-border smuggling into higher-price markets, or brand-specific demand that sustains illicit inflows even at relatively high price points.<sup>21</sup>

Affordability constitutes an important demand-side dimension in the analysis of illicit tobacco trade in ASEAN. When excise increases outpace growth in household incomes, legal cigarettes may become less affordable, thereby strengthening incentives for some consumers (particularly those in lower-income strata) to substitute toward lower-priced alternatives and, to a degree, turn to illicit products. Figures A and B provide a comparative overview of this relationship using two complementary indicators. Figure A reports the Price Relative to Income (PRI), defined as the share of annual GDP per capita required to purchase 100 packs of cigarettes. The figure reveals substantial cross-country variation in cigarette affordability, with the Philippines (10.1%) and Indonesia (5.4%) exhibiting the highest PRI values in the sample, while Vietnam and Singapore display comparatively lower values. Figure B presents Total Tax Relative to Income (TRI), which captures the tax burden on cigarettes relative to GDP per capita. Here too, considerable variation is observed across countries, with Indonesia recording a relatively high TRI (3.15%), compared with lower values in Malaysia

---

<sup>20</sup> Nguyen et al. (2019). *Illicit Cigarette Consumption and Government Revenue Loss in Vietnam: Evidence from a Primary Data Approach*. *International Journal of Research and Public Health*.

<sup>21</sup> World Bank. (2019). *Confronting illicit tobacco trade: A global review of country experiences*.

(2.04%) and Vietnam (0.96%). Considered jointly, the two figures suggest that the relationship between affordability, tax burden, and illicit trade is meaningful but not linear. Indonesia combines relatively high PRI and TRI values with a sizable domestically driven illicit market, whereas Malaysia records lower PRI and TRI values but a much larger illicit market share, reflecting the importance of cross-border smuggling and enforcement constraints. The comparison, therefore, supports a more cautious interpretation: although affordability pressures may contribute to illicit demand, their effects are mediated by the broader policy and market environment, including tax structure, price differentials, and enforcement capacity.

In Indonesia, illicit tobacco consumption is largely fed by domestically produced cigarettes that evade excise requirements, rather than by large-scale cross-border smuggling. Literature indicates that illicit cigarettes in Indonesia are generated within national borders and distributed through domestic channels, linking illicit supply primarily to weaknesses in production oversight and internal distribution controls.<sup>22</sup> In contrast, Malaysia and Thailand function primarily as transit and destination markets for illicit cigarettes smuggled from neighbouring lower-cost producers. The World Bank documents that illicit cigarettes enter Malaysia through both land and maritime routes, frequently involving mis-declaration and concealment, while similar cross-border dynamics characterise illicit supply in Thailand.<sup>23</sup> These patterns indicate that illicit consumption in both countries is sustained by inflows rather than domestic manufacturing.

Vietnam occupies a distinct niche within the regional illicit tobacco landscape. Based on survey data and pack inspections, illicit consumption in Vietnam is driven largely by consumer preference for specific foreign brands, notably Jet and Hero, rather than by demand for cheaper substitutes. Illicit cigarettes in Vietnam are reported to sell at prices above legal domestic products and are sourced through sustained international inflows.<sup>24</sup>

The remaining benchmark countries further illustrate destination-market dynamics. In the Philippines, illicit cigarettes primarily enter through cross-border and maritime channels and are subsequently distributed through domestic retail networks. Singapore presents a similar pattern, characterised by persistent inflows of duty-unpaid cigarettes. Despite strong border controls, illicit products continue to enter from neighbouring jurisdictions, reflecting both the ease of transport across short maritime routes and the persistence of cross-border price differentials.<sup>25</sup> The two indicators below should therefore be interpreted as part of a wider institutional explanation, rather than as stand-alone predictors of illicit trade.

---

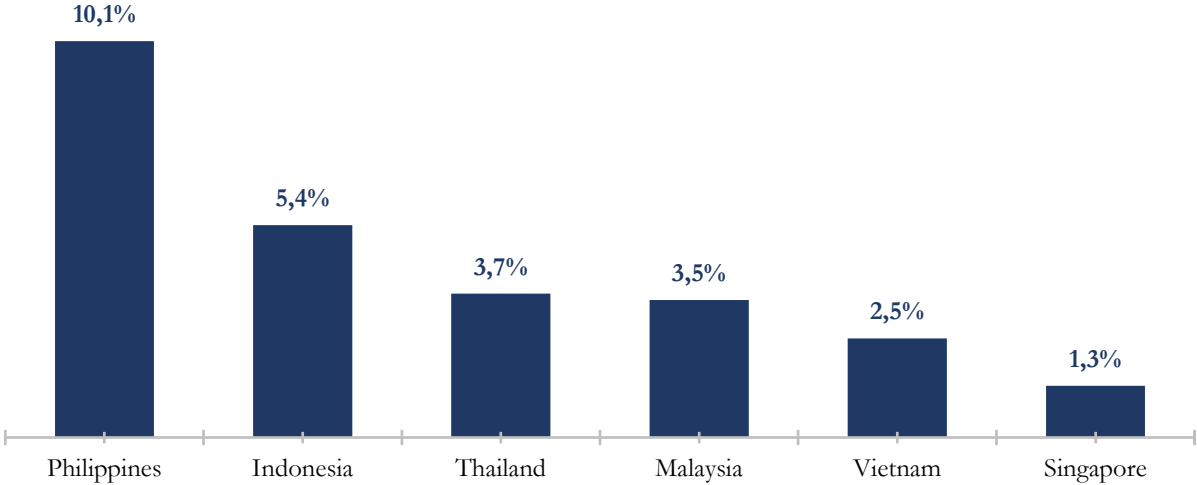
<sup>22</sup> Kasri et al. (2021). *New evidence of illicit cigarette consumption and government revenue loss in Indonesia*.

<sup>23</sup> World Bank. (2019). *Confronting illicit tobacco trade: A global review of country experiences*.

<sup>24</sup> Nguyen et al. (2019). *Illicit cigarette consumption and government revenue loss in Vietnam: Evidence from a primary data approach*.

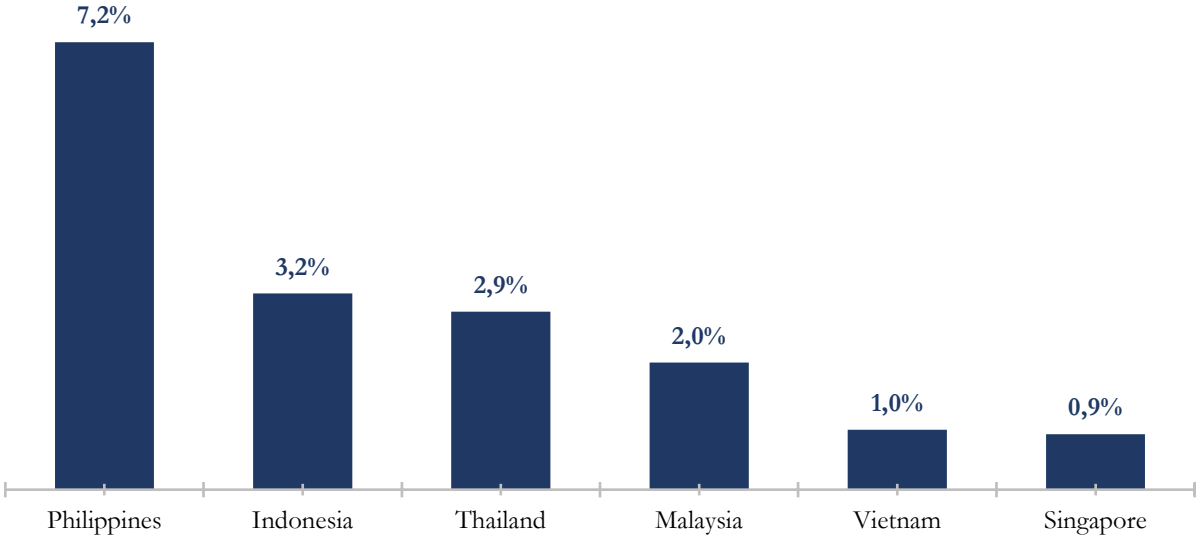
<sup>25</sup> Yusof, Z. M. (2025). *Number of seized contraband cigarettes remains high*.

**Figure A. Cigarettes WAP: Price Relative to Income (GDP/capita) – Selected ASEAN Countries, 2025**



*Note: Price Relative to Income (PRI) denotes the relative income price, defined as the percentage of annual per capita GDP required to purchase a fixed quantity of cigarettes (100 packs or 2000 sticks). Source: Euromonitor 2025, Global Consumer Trends*

**Figure B. Cigarettes WAP: Total Tax Relative to Income (GDP/capita) – Selected ASEAN Countries, 2025**



*Note: Total Tax Relative to Income (TRI) denotes the relative burden of average tobacco taxation levied per capita as a share of GDP per capita. Source: Euromonitor 2025, Global Consumer Trends.*

**2.2. Free trade zones**

Free trade zones (FTZs) - including special economic zones, free ports, and export-processing zones - are widely used across the ASEAN region as instruments to facilitate trade, attract investment, and support logistics integration. Although located within national territory, these zones typically operate under preferential regimes, including exemptions from customs duties, taxes, and simplified administrative procedures. In practice,

however, this regulatory treatment has often been accompanied by less frequent or less intensive inspections, particularly with respect to goods in transit, creating vulnerabilities that can be exploited for illicit trade.<sup>26</sup>

Reflecting these risks, the WHO published its *Protocol to Eliminate Illicit Trade in Tobacco Products*, explicitly identifying FTZs as risk areas within tobacco supply chains. Article 12 of the Protocol calls for effective control and verification measures covering manufacturing, storage, and transactions within FTZs. Available evidence suggests that, in the absence of such controls, FTZs can be used to manufacture, store, and move illicit tobacco products through complex, multi-jurisdictional logistics chains, often without entering domestic markets at intermediate stages.<sup>27</sup>

Within the group of ASEAN economies, several countries have strengthened oversight of tobacco products in FTZs and international transit. Singapore introduced tighter controls on the storage and movement of tobacco in FTZs through Customs Circular No. 01/2020, limiting storage duration and requiring relocation to licensed premises for extended holding.<sup>28</sup> The Philippines clarified customs authority over goods in special economic zones through the Customs Modernisation and Tariff Act of 2016, reinforcing documentation and inspection requirements for excisable products, including tobacco.<sup>29</sup> Malaysia has integrated FTZs into a risk-based customs enforcement framework, under which inspection and control efforts - including physical examination - are targeted toward higher-risk consignments rather than applied uniformly, allowing customs authorities to focus resources on shipments and routes assessed as more vulnerable to diversion or non-compliance.<sup>30</sup>

Taken together, the evidence suggests that FTZs and international transit routes can facilitate the movement and concealment of illicit tobacco products - not because of their economic role, but because gaps in oversight at these points can reduce the visibility of supply chains. In the ASEAN context, this implies that FTZs should be assessed not as independent sources of illicit tobacco trade, but as components of a wider logistics and enforcement environment whose impact depends on the strength and coherence of surrounding controls. This connects directly to the three-pillar framework developed in the next section. FTZs sit at the boundary between regulation and enforcement. Their risk does not arise from their existence as trade-facilitation instruments, but from gaps in customs visibility, storage controls, licensing, transit verification and intelligence-sharing.

### **2.3. The three pillars of illicit tobacco control**

The preceding sections depict that illicit tobacco markets in the ASEAN region are shaped by a combination of country-specific roles within source, transit, and destination chains, as well as by vulnerabilities in the broader logistics environment, including FTZs. These patterns suggest that illicit trade does not arise from a single point of failure, but rather from misalignment across multiple policy areas. Addressing it, therefore, requires a more coherent policy approach that brings together tax design, market regulation, and enforcement capacity.

A useful way to frame this interaction is through the three pillars of illicit tobacco control, comprising interdependent elements. The first is the excise tax system, including the level and structure of excise duties, which should be predictable, relatively simple, and resistant to market manipulation. The second is the regulatory framework, which governs the legal tobacco market through licensing, product standards, marking and tracking requirements, and other measures aimed at ensuring product integrity. The third is the

---

<sup>26</sup> WHO (2021). *Examples of current practices in the implementation of Article 12 (free zones and international transit) of the Protocol to Eliminate Illicit Trade in Tobacco Products*.

<sup>27</sup> WHO (2021). *Examples of current practices in the implementation of Article 12 (free zones and international transit) of the Protocol to Eliminate Illicit Trade in Tobacco Products*.

<sup>28</sup> Singapore Customs (2026). *Depositing Goods in the Free Trade Zones (Customs Circular No. 01/2020)*.

<sup>29</sup> Bureau of Customs, Philippines (2026). *Guidelines on importation – Republic Act No. 10863 (2016)*.

<sup>30</sup> World Bank. (2019). *Confronting illicit tobacco trade: A global review of country experiences*.

enforcement system, covering customs controls, investigative capacity, prosecution, and broader efforts to disrupt illicit networks. Weaknesses in any one of these pillars can undermine the others, allowing illicit trade to persist even where individual policy tools are formally in place. Recent policy developments across ASEAN illustrate efforts to strengthen different sides of this integrated policy architecture:

The three pillars should therefore be understood as mutually reinforcing. A well-designed excise system can still underperform if retail compliance is weak or enforcement is limited to seizures. Similarly, strong enforcement can only contain illicit trade up to a point if tax structures create large arbitrage opportunities or if regulatory frameworks are difficult to implement. This framework provides the basis for interpreting the country case studies that follow.

On the fiscal side, Vietnam has announced a transition toward a mixed cigarette excise tax system, combining specific and ad valorem elements, with phased implementation planned over the coming years, reflecting concerns that reliance on ad valorem taxation alone leaves scope for price manipulation and down-trading. Such concerns are well documented in academic literature, which illustrates that ad valorem excise tax components are more vulnerable to base erosion and strategic pricing than specific or mixed systems, which compress price differentials between brands and are easier to administer.<sup>31,32</sup> Similarly, the Philippines' Sin Tax Reform, initiated in 2012 and subsequently expanded through later amendments, simplified a previously complex tiered excise structure and shifted tobacco taxation toward a uniform specific excise with automatic annual adjustments. This reform responded to evidence that multi-tier systems encourage misclassification and concentration of production in lower-tax tiers, undermining revenue, enforcement, and public health objectives.<sup>33</sup> International Financial Institutions have consistently emphasised that specific or mixed excise systems and simplified tax structures are more robust and less vulnerable to avoidance than fragmented or purely ad valorem regimes, and have highlighted reforms such as those in Vietnam and the Philippines as being aligned with these design principles.<sup>34,35</sup>

At the regional level, ASEAN has sought to address both regulatory and enforcement gaps in illicit trade primarily through strengthened customs cooperation and alignment with international standards. The ASEAN Agreement on Customs provides a framework for cooperation among customs administrations, including information sharing, harmonisation of procedures, and coordinated enforcement actions.<sup>36</sup> More recent initiatives have focused on joint risk management, intelligence sharing, and coordinated inspections, reflecting the cross-border nature of illicit tobacco flows and the need for collective responses.<sup>37</sup> Within this broader framework, individual Member States have implemented measures to strengthen supply chain control. In the Philippines, authorities have enhanced the tax stamp and product marking system, including recent upgrades aimed at improving the identification of legitimate products and reducing opportunities for counterfeiting and stamp reuse.<sup>38</sup> Singapore has implemented strict controls over the storage and movement of tobacco products in FTZs, including time limits and licensing requirements, while Malaysia has enhanced physical inspection of goods entering FTZs. Taken together, these measures illustrate how national regulatory and enforcement actions complement ASEAN-level cooperation by strengthening traceability, oversight, and targeted compliance checks across the supply chain.<sup>39,40</sup>

---

<sup>31</sup> Chaloupka et al. (2010). *Cigarette excise taxation: The impact of tax structure on prices, revenues, and cigarette smoking*.

<sup>32</sup> Shang et al. (2014). *Cigarette excise tax structure and cigarette prices: Evidence from the Global Adult Tobacco Survey and the U.S. National Adult Tobacco Survey*.

<sup>33</sup> Kaiser et al. (2016). *Sin tax reform in the Philippines: Transforming public finance, health, and governance for more inclusive development*.

<sup>34</sup> World Bank. (2019). *Confronting illicit tobacco trade: A global review of country experiences*.

<sup>35</sup> WHO (2020). *Tobacco taxation systems: Ideal tax structure*.

<sup>36</sup> ASEAN Agreement on Customs (nd).

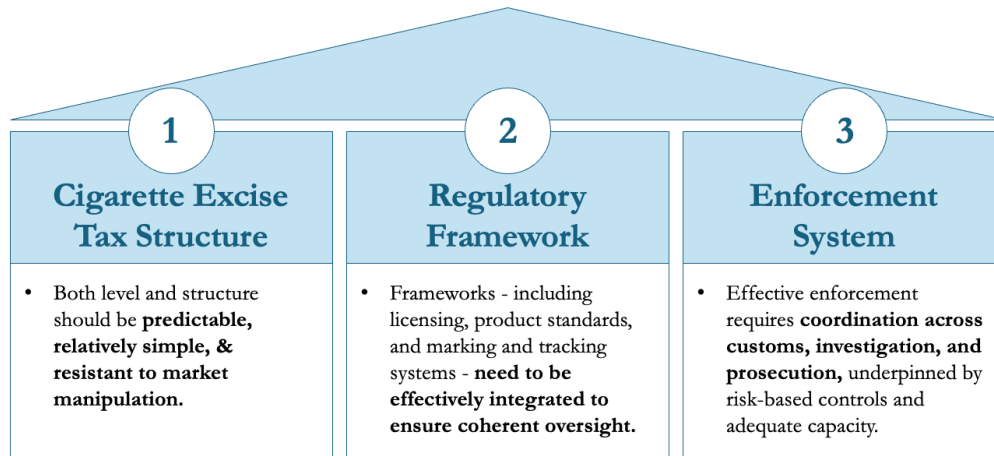
<sup>37</sup> 33rd Meeting of ASEAN Directors-General of Customs (2024).

<sup>38</sup> Kaiser et al. (2016). *Sin tax reform in the Philippines: Transforming public finance, health, and governance for more inclusive development*.

<sup>39</sup> Singapore Customs (2026). *Depositing Goods in the Free Trade Zones (Customs Circular No. 01/2020)*.

<sup>40</sup> World Bank (2019). *Malaysia: Addressing the illicit flow of tobacco products. Technical report of the World Bank Group Global Tobacco Control Program*.

**Figure 1. The three pillars of illicit tobacco control.**



*Note: The figure summarises the paper's analytical framework: illicit tobacco control depends on the alignment of tax design, regulation and enforcement. Weakness in one pillar can reduce the effectiveness of the others.*

## 2.4. Regional policy implications

Experience across ASEAN points to a set of recurring weaknesses that emerge when excise tax design, regulatory oversight, and enforcement capacity are not well aligned. Large or abrupt excise tax increases introduced without corresponding improvements in customs control and investigative capacity can weaken revenue performance and strengthen incentives for illicit supply, particularly in contexts where border management and inter-agency coordination remain uneven. Similarly, complex or ad valorem and/or tiered tax structures tend to encourage down-trading and strategic product classification, eroding revenues from higher-taxed segments and complicating administration. Gaps in retail-level compliance further undermine regulatory efforts by allowing illicit products to be sold alongside legal goods, weakening deterrence and contributing to the normalisation of evasion. Finally, enforcement strategies that rely predominantly on seizures - without sustained investigation, prosecution, and financial disruption of illicit networks - have shown limited long-term effectiveness. Taken together, these patterns suggest that durable reductions in illicit tobacco trade depend less on individual policy instruments than on the degree of alignment across tax design, regulation, and enforcement. From a regional perspective, these recurring weaknesses suggest that ASEAN-level coordination can play a complementary role by addressing cross-border vulnerabilities that individual countries are unlikely to resolve on their own. In particular, the following regional policy implications emerge:

- (i) ASEAN should prioritise the operationalisation of joint intelligence-sharing and risk profiling for maritime routes and containerised cargo, particularly along high-volume transit corridors. Risk-based selectivity, supported by shared intelligence and common indicators, allows enforcement efforts to be targeted more effectively than uniform inspection. Regional cooperation should therefore focus on shared watchlists, systematic information exchange on high-risk consignments, and coordinated inspections across customs administrations.
- (ii) Cooperation on excise stamps and product verification would benefit from stronger cross-border information exchange supporting national marking and traceability systems. Extending verification

beyond national borders can reduce opportunities for diversion during transit, particularly in regions characterised by frequent re-export, without requiring harmonisation of excise tax systems.

- (iii) Closer coordination around minimum standards for licensing and retailer accountability remains necessary. While licensing is a national responsibility, uneven requirements create vulnerabilities along regional supply chains, particularly at the distribution and retail levels. Efforts should focus on narrowing these gaps, especially in border regions and high-traffic markets.
- (iv) The persistence of illicit tobacco trade despite frequent seizures points to the need for stronger cross-border cooperation on financial investigations, anti-money laundering (AML), and asset recovery. The illicit tobacco trade is profit-driven and sustained by financial networks operating across jurisdictions. Strengthening coordination between customs authorities, financial intelligence units, and law enforcement agencies would support the identification and disruption of illicit financial flows and enable more effective recovery of proceeds of crime.

### 3. Selected country case studies

The following country case studies apply the three-pillar framework to six ASEAN economies. Each case examines how excise tax design, regulatory arrangements and enforcement capacity interact to shape illicit tobacco market outcomes. The purpose is not to rank countries, but to identify the specific combinations of structural and institutional factors that make illicit trade more or less persistent.

#### 3.1. Indonesia - Complex tax structures and domestic illicit production

##### (i) Overview

- **Tax policy:** Indonesia's tiered excise system currently has eight tax tiers (down from 19 in 2009). The tiers differ by cigarette type, including kretek and white cigarettes, production method, including hand-rolled and machine-made products, and price or production-volume thresholds. This system fuels evasion and downtrading.<sup>41</sup> Producers scale back output for lower tiers; thousands of unregistered kretek factories (e.g., 213 of 242 in Jember District) supply around 90% of illicit stock domestically. Research confirms these are structural, not temporary, flaws: tax hikes displace legal sales with illicit/hand-rolled substitutes, while consumption rose from 212.5 billion sticks (2007) to 307.6 billion (2018). Further, Indonesia serves as an origin for smuggled kreteks to other countries.<sup>42</sup> The price relative to income for cigarettes was estimated at 5.42% (as a percentage of per capita GDP) in 2025, and the tobacco tax relative to income at 3.15%.<sup>43</sup> As a result of continuous tax increases (between ~10% to ~23% per year) between 2020 and 2024, price relative to income for average priced cigarettes in Indonesia became at very similar levels to the ones in Australia, and total tax relative to income especially for white

---

<sup>41</sup> Soedarsono et al. (2026). *Excise simplification to address downtrading: Towards a more effective tobacco tax policy in Indonesia*. *World Customs Journal*.

<sup>42</sup> Ahsan et al (2014). *Illicit cigarette consumption and government revenue loss in Indonesia*. *Globalization and Health*.

<sup>43</sup> Euromonitor (2025). *Global Consumer Trends*.

cigarettes in Indonesia became considerably higher than the one in Australia, a country facing significant illicit trade and organized crime issues.

- **Illicit trade:** Indonesia, Southeast Asia's largest economy, faces substantial tobacco control challenges. With high tax increases, especially between 2020 and 2024, the illicit market share in consumption increased from 5% in 2013<sup>44</sup> to 13.9% in 2025<sup>45</sup>. Tax revenue losses due to illicit consumption are estimated at IDR 24.2 to 42.0 trillion, corresponding to 15.8% to 27.5% of tobacco excise revenue in 2018.<sup>46</sup> The fiscal loss amount is enough to expand the "Free Nutritious Meals" program to 42.6 million more recipients vs current 31.2 million.<sup>47</sup> Moreover, child labour remains a persistent issue in Indonesian tobacco farming, particularly in the unregulated supply chains that feed the domestic illicit market.<sup>48</sup>
- **Regulation:** Fiscal stability is inextricably linked to the broader regulatory environment. To maintain a competitive investment climate, regulatory and fiscal policies cannot operate in isolation. The tobacco sector serves as a critical case study where governments must ensure that public health initiatives are balanced against economic realities, IP protections, and the capacity to combat illicit trade, ensuring a predictable environment for legitimate businesses and safeguarding vital labour-intensive sectors. When regulations become so restrictive that legal compliance is commercially unviable, demand does not necessarily disappear; instead, part of the market may migrate to the shadow economy. The most alarming consequence of these extreme restrictions is the systemic risk to state revenue. By implementing extreme non-tax barriers, regulators are inadvertently subsidising illicit trade, handing market share to criminal networks, and eroding the very tax base required for sustainable economic development.

## (ii) Assessment:

Indonesia's experience illustrates how structural features of excise tax design interact with enforcement outcomes. The tiered excise system has created strong incentives for producers to remain small, misclassify output, or operate informally, particularly in the hand-rolled kretek segment.<sup>49,50</sup> Empirical studies consistently show that excise increases under this structure have displaced legal sales toward lower-taxed or illicit products rather than reducing overall consumption proportionately. This suggests that Indonesia's complex tax structure, when combined with repeated high tax increases, has contributed to the growth of illicit trade. While high tax increases pushed legal cigarettes prices, e.g., for machine-made kretek cigarettes, to IDR 30,000 to IDR 37,000 per pack levels, illicit cigarettes in this segment are available for almost 1/3<sup>rd</sup> of the legal price, leading consumers to switch to noncompliant and non-duty-paid cigarettes, putting public health at risk and leading to tax revenue loss for governments.

At the same time, Indonesia demonstrates that enforcement matters for fiscal outcomes. The analysis by Ardana et al. (2025) provides rare sub-national evidence that intensified enforcement is associated with higher excise revenue, even in the presence of complex tax structures. This finding reinforces international evidence that illicit trade is also reinforced with gaps in administration,

---

<sup>44</sup> Kasri, R. et al (2021). *New evidence of illicit cigarette consumption and government revenue loss in Indonesia.*

<sup>45</sup> CISDI (2026). *Ministry of Finance step back: Policy to increase cigarette excise layer*

<sup>46</sup> Kasri, R. et al (2021). *New evidence of illicit cigarette consumption and government revenue loss in Indonesia.*

<sup>47</sup> Ferlito (2025). *Illicit Tobacco Trade and Fiscal Losses in ASEAN: A Comparative Analysis. Center for Market Education Brief*

<sup>48</sup> TRACIT (2025). *Examining the negative impact of illicit trade on the ASEAN Community Vision 2025.*

<sup>49</sup> Hidayat et al. (2016). *Impact of specific excise rate simplification on cigarette consumption and government revenue in Indonesia.*

<sup>50</sup> Kasri et al. (2021). *New evidence of illicit cigarette consumption and government revenue loss in Indonesia.*

monitoring, and enforcement.<sup>51,52</sup> However, Indonesia's enforcement approach remains largely seizure-based and downstream-focused. Supply-chain oversight is concentrated on distribution and retail stages, with limited preventive monitoring of raw materials and production inputs. In addition, the absence of an integrated track-and-trace system constrains the ability to detect diversion in real time.

### (iii) National policy recommendations:

Indonesia's experience indicates that reducing illicit cigarette production and protecting excise revenue requires stronger coherence across tax design and tax increase level, regulation, and enforcement, rather than incremental adjustments within individual pillars. First, Indonesia should refrain from excessive tax increases like the 2020-2024 period as an immediate action, and then accelerate the transition toward a more uniform specific excise structure to reduce down-trading by reducing the tax gaps between each price/tariff tier. Evidence shows that the current fragmented, tiered system has encouraged informal production and misclassification, weakening administrative control and revenue performance. Since the cigarette price and tax levels compared to income are beyond the revenue-maximising level in Indonesia, any tax increase could possibly exacerbate the illicit trade problem. In the medium term, tax increases should be implemented at a moderate level thereafter to restore the legal products' price competitiveness and prevent a switch from legal products to cheaper, lower-standard illicit products.

Second, Indonesia requires strengthened regional coordination through ASEAN border-management frameworks, with a focus on real-time intelligence sharing and joint risk-profiling for maritime routes and containerised cargo. Given Indonesia's role as both a source and transit country, enforcement effectiveness increasingly depends on cross-border information exchange and coordinated targeting rather than purely national interventions.

Third, Indonesia needs to reinforce anti-corruption safeguards within excise and customs administration, particularly in high-risk border and production regions. Strengthening internal controls, rotating staff in sensitive positions, and strictly enforcing transparency would help reduce opportunities for regulatory capture, collusion and other practices that facilitate illicit activity.

Finally, Indonesia should consider adopting a coordinated regulatory approach that ensures tobacco control measures are proportionate, enforceable, and aligned with Indonesia's economic realities, thereby preserving the viability of the legal market and protecting government revenues. Avoidance of overly restrictive measures that risk accelerating illicit trade – such as additives restrictions, plain packaging, and impractical product standards such as tar and nicotine limits – is critical to ensure compliance feasibility and enforceability.

## 3.2. Malaysia – High price gaps between legal and illicit products with entrenched smuggling networks

### (i) Overview

- **Tax policy:** Malaysia's tobacco tax system generates a substantial price differential between licit and illicit cigarettes,<sup>53</sup> contributing to a 55% illicit market share as of 2024, the highest in the

---

<sup>51</sup> World Bank. (2019). *Confronting illicit tobacco trade: A global review of country experiences*.

<sup>52</sup> Ardana et al. (2025). *Enforcement of illicit cigarettes increases excise revenue in Indonesia*.

<sup>53</sup> In 2025, legal cigarettes cost (\$4.60) and illicit ones are as low as (\$0.75) (TobaccoReporter (nd). *Illicit Cigarettes Threaten Malaysia's Micro-Businesses*).

region.<sup>54</sup> The latest reports suggest that the illicit market share increased to 60%<sup>55</sup>. High illicit levels followed the sharp excise tax increase in 2015<sup>56</sup>, while the gap between estimated potential excise tax revenue and excise taxes actually paid increased from 42% in 2015 to 63% in 2019.<sup>57</sup> Fiscal losses are substantial (at about USD 0.77 billion in 2024), amounting to more than total tobacco excise collections, which were approximately USD 0.63 billion (RM3.0 billion) as of 2025.<sup>58</sup> Malaysia is one of the few countries where the tax revenue to GDP ratio has declined gradually from 18.5% in 1990 to 13.1% in 2023, vis-à-vis the increasing trend of the Asia-Pacific average of 19.6% and OECD average of 33.9% as of 2023<sup>59</sup>. Revenue losses due to the illicit trade of tobacco products are one of the elements that contribute to this decline. The price relative to income for cigarettes was estimated at 3.51% (as a percentage of per capita GDP) in 2025, and the tobacco tax relative to income at 2.04%.<sup>60</sup>

- **Illicit trade:** Large price differentials between licit and illicit cigarettes create sustained incentives for organised illicit activity. In Malaysia, key transit routes - including the Strait of Malacca and land borders with Thailand and Indonesia - facilitate the movement of illicit tobacco products. These routes often overlap with broader trafficking networks, reflecting the integration of cigarette smuggling into established illicit supply chains. Weaknesses in governance and enforcement, including risks of corruption, can further enable the entry and distribution of illicit products through formal and informal channels.<sup>61</sup> Once established, such networks are difficult to dismantle, given their profitability and adaptability.<sup>62</sup>

**Regulation:** Malaysia has enacted one of the most comprehensive regulatory frameworks in the ASEAN region, especially for e-cigarettes, yet despite this, Malaysia has the largest illicit e-vape market in ASEAN. According to the Euromonitor report published in May 2026, Malaysia's illicit e-vape market generated an estimated RM1.7 billion (USD 365 million) in 2025, with illicit products accounting for approximately 67% of all e-vapes sold. Several structural factors explain the persistence of illicit trade despite a strong regulatory framework, including the link to wider criminal networks and public safety risks.

## (ii) Assessment:

Malaysia's experience illustrates how sudden and high excise increases, combined with persistent cross-border enforcement constraints, can entrench illicit markets. Following the sharp increase in cigarette excise duties in 2015 (by ~42.8%), the price gap between licit and illicit products widened significantly, reinforcing incentives for large-scale smuggling rather than reducing consumption. Tax-gap estimates suggest a sustained divergence between potential and actual excise revenues, indicating that the illicit market expanded alongside rising legal product prices. In contrast to Indonesia, where illicit supply is largely domestic, Malaysia's illicit cigarette market is driven primarily by organised cross-border inflows. Well-established smuggling routes overlap with broader trafficking networks, making illicit supply resilient to conventional enforcement. Once established, these routes tend to be

<sup>54</sup> Ferlito (2025). *Illicit Tobacco Trade and Fiscal Losses in ASEAN: A Comparative Analysis*. Center for Market Education Brief

<sup>55</sup> New Straits Times (2026). *Illicit cigarettes make up 60pct of Malaysia market, report says*

<sup>56</sup> Taxation of cigarettes changed from a mixed duty system of 20% of the sales value plus MYR0.28 per stick, to a totally specific tax of MYR0.40 per stick (World Bank (2019). *Malaysia: Addressing the illicit flow of tobacco products. Technical report of the World Bank Group Global Tobacco Control Program*).

<sup>57</sup> Koya et al. (2022). *Measuring Malaysia's illicit tobacco trade*. *Journal of Illicit Economics and Development* 4(1).

<sup>58</sup> The Star (2025). *Smoking products brought in RM15.3 billion in duties since 2021, says Finance Ministry*.

<sup>59</sup> OECD (2025), Revenue Statistics in Asia and the Pacific 2025: Personal Income Taxation in Asia and the Pacific, OECD Publishing, Paris, <https://doi.org/10.1787/6c04402f-en>.

<sup>60</sup> Euromonitor (2025). *Global Consumer Trends*.

<sup>61</sup> World Bank (2019). *Malaysia: Addressing the illicit flow of tobacco products. Technical report of the World Bank Group Global Tobacco Control Program*

<sup>62</sup> Koya et al. (2022). *Measuring Malaysia's illicit tobacco trade*. *Journal of Illicit Economics and Development* 4(1).

resilient to incremental enforcement, especially where corruption and informal collusion facilitate entry and distribution through otherwise legal retail channels.

The persistence of illicit supply has also weakened compliance. The widespread availability of untaxed cigarettes has normalised evasion among consumers and retailers, undermining tax morale and the credibility of regulatory controls. This is particularly important for Malaysia because the illicit market is not only a border-control issue. It is also a revenue-integrity issue, a retail-compliance issue and a market-governance issue. Once illicit cigarettes become widely available and socially normalised, enforcement must work harder to reverse behaviours that have already become embedded among consumers, retailers and distributors. While institutions are relatively well-resourced, their effectiveness is constrained by the scale of illicit inflows and gaps in retail-level compliance.

### **(iii) National policy recommendations:**

Malaysia's tobacco market is characterised by a structural imbalance, which, in its current form, has generated a large and persistent price gap between licit and illicit products, sustaining smuggling incentives and weakening compliance. First, on excise design, a more predictable and moderate tax path while maintaining the single-tier specific excise tax system would help reduce arbitrage opportunities between licit and illicit products. Evidence indicates that abrupt and high tax increases, in the presence of weak border control, have widened the gap between potential and actual government revenues, reinforcing illicit inflows rather than stabilising collections. A gradual and predictable trajectory, combined with efforts to narrow price differentials, is more likely to support revenue recovery over the medium term.

Second, on regulation, strengthening product control and verification mechanisms remains critical. The transition toward digital tax codes and improved verification systems would help address the growing prevalence of counterfeit stamps, while tighter retail-level controls are needed to prevent illicit products from circulating through formal distribution channels.

Third, on enforcement, greater emphasis should be placed on maritime interdiction and cross-border cooperation, alongside a shift toward prosecution, financial investigations, and asset recovery. Given the organised and transnational nature of illicit trade, seizure-focused approaches alone are unlikely to achieve durable deterrence. Strengthening integrity controls within customs and border agencies, together with anti-corruption safeguards, is essential to disrupt entrenched smuggling networks.

## **3.3. The Philippines – Excise reform and enforcement coordination**

### **(i) Overview:**

- **Tax policy:** The Philippines undertook a major restructuring of cigarette excise taxation in 2012 through the Sin Tax Reform Act, replacing a four-tier, price-based excise system gradually with a single-tier specific excise tax. Before the reform, more than 80% of cigarette brands were taxed at legacy price levels dating back to 1996, substantially eroding the tax base. Following reform, tobacco excise revenues more than doubled between 2012 and 2013 and tripled by 2015, reaching approximately PHP 100 billion, with a significant share earmarked for universal health coverage.<sup>63</sup>

---

<sup>63</sup> Kaiser et al. (2016). *Sin tax reform in the Philippines: Transforming public finance, health, and governance for more inclusive development*.

Subsequent reforms have further strengthened the system. In 2019, Republic Act No. 11346 introduced additional tax increases, raising cigarette excise taxes to PHP 45 per pack in 2020, with scheduled increases to PHP 60 per pack of 20 sticks by 2023 and automatic annual increases thereafter. Crucially, the government adopted a policy of indexation, mandating regular increases in excise tax rates, initially through fixed annual increments and thereafter through automatic percentage adjustments (e.g., 5% per year). This aimed to ensure that taxes kept pace with inflation and income growth, preventing the erosion of their real value over time. As a result, the specific tax reached about PHP 69 per pack of 20 sticks by 2026<sup>64</sup>.

While the adoption of automatic indexation is widely regarded as best practice in advanced economies, the magnitude of these adjustments is equally critical. In the Philippine case, the application of a fixed annual increase of 5% has exceeded recent inflation rates, which stood at approximately 3.2% in 2024 and 1.7% in 2025<sup>65</sup>. This implies a continuous rise in the real tax burden on tobacco products.

Cumulatively, tobacco prices relative to income reached approximately at 10.12% (as a percentage of GDP) in 2025<sup>66</sup>, and tax relative to income reached at 7.19%, which remains the highest level among ASEAN countries. These outcomes underscore the importance of carefully calibrating indexation mechanisms to balance revenue generation, consumption reduction, and the risk of unintended consequences such as tax evasion and illicit trade.

- **Illicit trade:** Illicit tobacco supply is primarily externally sourced and distribution-driven. The World Bank identifies the Philippines as a destination market for illicit cigarettes, supplied largely through cross-border and maritime smuggling routes. The country's extensive coastline and containerised shipping networks facilitate illicit inflows, with illicit cigarette market shares increasing from an estimated 10.4% in 2019 to 19.9% in 2024.<sup>67,68</sup>
- **Regulation:** The Philippines has a comprehensive regulatory framework, but important enforcement gaps remain, particularly in retail-level verification, inter-agency coordination and the monitoring of distribution channels. Continual stamp upgrades reflect persistent verification risks. The Philippines has repeatedly upgraded cigarette excise stamp designs under the eIRSIS (Enhanced Internal Revenue Stamps Integrated System), including the issuance of new and upgraded stamp designs in 2024, in line with system requirements mandating periodic security enhancements. These upgrades are intended to improve functionality, address risks of stamp counterfeiting and reuse, and strengthen verification across wholesale and retail markets.<sup>69</sup>

## (ii) Assessment:

The Philippine tobacco tax reform illustrates a highly effective transition from a complex and erosion-prone excise system to a simplified and more robust fiscal framework. The 2012 Sin Tax Reform Act successfully eliminated structural inefficiencies by introducing a uniform specific tax for cigarettes, which strengthened revenue performance. However, while indexation has preserved and even strengthened the real value of tobacco taxes, its fixed annual rate of 5% increase has exceeded recent

---

<sup>64</sup> Government of the Philippines (2019). *An Act Increasing Excise Tax on Tobacco Products, Heated Tobacco Products and Vapor Products - Republic Act No. 11346*.

<sup>65</sup> Philippine Statistics Authority (2026). *Year-on-Year Inflation Rates in the Philippines, all items*.

<sup>66</sup> Euromonitor (2025). *Global Consumer Trends*.

<sup>67</sup> World Bank. (2019). *Confronting illicit tobacco trade: A global review of country experiences*.

<sup>68</sup> Senate Ways and Means Committee Hearing (Jan, 2025) & Euromonitor (2025). *Comparative estimates of illicit cigarette market penetration (in %), 2019 to 2024. (Time stamp, 3:23:59)*.

<sup>69</sup> Bureau of Internal Revenue (Philippines). (2024). *Revenue Memorandum Circular No. 40-2024: New and upgraded internal revenue stamp design for cigarettes, heated tobacco products, and vapor products under the Enhanced Internal Revenue Stamps Integrated System (eIRSIS)*.

inflation, resulting in a sustained rise in the real tax burden. This has contributed to prices relative to income reaching among the highest levels in ASEAN. This highlights emerging trade-offs, including potential pressures on legal market demand and increased incentives for illicit activity.

Measures such as tax stamps and product marking have improved the government's ability to identify illicit products. Yet the repeated upgrading of stamp systems under the eIRSIS highlights the adaptability of illicit networks and the limits of static control measures. Uneven verification capacity at the wholesale and retail level allows illicit goods to circulate alongside tax-paid products, weakening deterrence and compliance.

Although enforcement capacity exists, it remains fragmented across agencies and difficult to sustain in a geographically dispersed retail market. Border interdiction and seizures alone have not prevented illicit products from entering domestic supply chains, particularly given the Philippines' extensive coastline and maritime trade dependence. Overall, the Philippine case demonstrates that strong excise design and regulatory systems are necessary but insufficient to control illicit tobacco trade. Without consistent enforcement across distribution and retail channels, illicit supply can continue to undermine revenues and compliance.

### **(iii) National policy recommendations:**

The Philippines' priority should be to consolidate the gains from structural excise reform by strengthening predictability, downstream verification, and enforcement coordination. On the tax policy front, first, the single-tier specific cigarette excise structure introduced under the Sin Tax Reform in 2012 should be maintained, as it has substantially reduced the misclassification and base-erosion risks associated with the previous tiered regime. Second, while maintaining automatic indexation is essential to preserve the real value of excise taxes, the rate of indexation should be more closely aligned with macroeconomic conditions, particularly inflation and income growth.

The current fixed 5% annual increase has exceeded recent inflation levels, resulting in a steady rise in the real tax burden. A more adaptive approach, such as linking annual adjustments to a composite indicator combining inflation and income growth, could ensure that taxes remain effective without generating excessive affordability shocks in the legal market. Third, there is a need to regularly monitor tobacco affordability using standardised metrics, such as the Price Relative to Income Price (PRI). The Philippine experience demonstrates that cumulative tax increases have significantly reduced the affordability of legal products, reaching approximately 7.1% of GDP per capita—yet this also underscores the importance of periodic reassessment. Policymakers should institutionalise affordability monitoring to guide tax calibration, preserve revenue performance and reduce the risk that excessive affordability shocks shift consumers toward illicit products. Lastly, the elimination of tax tiers on e-cigarettes would ensure efficient and stable tax collection while minimising tax revenue losses due to potential misdeclaration of products (e.g., potential declaration as free-base nicotine to avoid excise taxes on nicotine salt e-cigarettes).

On the verification mechanisms, continued investment in excise stamp security and verification under the eIRSIS remains important. Verification mechanisms should be extended beyond manufacturers and importers to wholesale and retail levels, reducing opportunities for counterfeit stamps and the circulation of illicit products through formal distribution channels.

Lastly, enforcement efforts would benefit from closer operational coordination between the Bureau of Internal Revenue and the Bureau of Customs, including shared databases, joint risk profiling, and integrated intelligence on high-risk routes. Greater emphasis should also be placed on

financial investigations and asset-based enforcement targeting large-scale organisers and distributors rather than low-level retail actors alone.

### 3.4. Singapore – Persistent external supply pressure

#### (i) Overview:

- **Tax policy:** Singapore applies a simple, specific excise tax on cigarettes, with duties levied on a per-stick basis, and does not have domestic tobacco production. Cigarettes are legal but subject to strict regulation and relatively high taxation. Excise rates have been adjusted through a series of discrete increases, including a 10% rise in 2018, followed by a 15% increase in February 2023 and a further 20% increase in February 2026<sup>70</sup>. However, the reliance on irregular but relatively large tax hikes on top of already high tax levels, nominally, has been associated with persistent illicit trade challenges.
- **Illicit trade:** In the absence of domestic cigarette production, all illicit cigarettes consumed in Singapore are sourced through cross-border smuggling. The illicit cigarette market remains relatively contained, with estimates indicating a prevalence of approximately 7.0%<sup>71</sup>. Seizure data from Singapore Customs reported seizures of 3.24 million packets of duty-unpaid cigarettes between January and November 2025, broadly unchanged from 3.26 million packets during the same period in 2024, indicating sustained illicit inflow.<sup>72</sup>

The illicit market for e-cigarettes presents a more complex challenge. Despite a comprehensive enforcement regime, illicit vape consumption remains present. According to a report published by the EU-ASEAN Business Council, illicit tobacco and nicotine sales in Singapore – compromising mainly illicit cigarettes and e-vaporisers – had resulted in an estimated SGD 156 million in lost government revenue between 2024 and 2025.<sup>73</sup>

While e-cigarette use in Singapore has risen in the past years, coinciding with a decline in traditional smoking rates, the illicit e-cigarette use started to drop in 2025 (e.g., from 5.6% to 5.3%)<sup>74</sup> possibly with regard to increased penalties for e-cigarette importations or usage. For example, “buying, selling, conveying, possessing and dealing in duty-unpaid goods can result in fines of up to 40 times the amount of duty and GST evaded, and may include a jail sentence up to six years”.<sup>75</sup>

The substantial fines and imprisonment, including escalated penalties for repeat offences, as well as forfeiture of vehicles and goods used in smuggling. Enforcement practice emphasises sustaining deterrence domestically while disrupting upstream supply chains through regional cooperation.<sup>76</sup>

- **Regulation:** Singapore’s cigarette market operates within a highly controlled regulatory environment, where enforcement efforts can be focused on identifying duty-unpaid products

---

<sup>70</sup> Raguraman, A. (2026). *Budget 2026: Smokers to pay more for tobacco products as 20% tax hike kicks in on Feb 12*.

<sup>71</sup> EU-ASEAN Business Council, & Euromonitor International. (2026). Inside ASEAN’s illicit tobacco trade. *EU-ABC–Euromonitor-Illicit-Tobacco-Study FINAL.pdf*

<sup>72</sup> Yusof, Z. (2025). *Number of seized contraband cigarettes remains high; some turn to cigarettes over vapes*.

<sup>73</sup> <https://www.straitstimes.com/singapore/courts-crime/spike-in-vehicles-seized-at-borders-smuggling-contraband-items-in-2025-singapore-customs>

<sup>74</sup> <https://sureboh.sg/2025/07/30/nearly-4-in-10-vape-users-in-singapore-buy-e-cigarettes-via-telegram-survey-results-shows/>

<sup>75</sup> <https://www.straitstimes.com/singapore/courts-crime/spike-in-vehicles-seized-at-borders-smuggling-contraband-items-in-2025-singapore-customs>

<sup>76</sup> Singapore Statutes Online (2026). *Customs Act 1960*.

within a legal supply chain, supported by excise stamps, standardised packaging, and risk-based border screening, enabling targeted and relatively efficient enforcement.

In contrast, the regulatory approach to e-cigarettes has been based on outright prohibition, in effect since February 2018. As a result, the entire vape market is illicit by definition, generating no fiscal revenue.

**(ii) Assessment:**

Singapore’s tobacco control framework demonstrates a clear contrast between the effectiveness of taxation within a regulated market and the limitations of prohibition-based approaches. On the one hand, the use of a simple, specific excise tax combined with strict enforcement has enabled high tax compliance. On the other hand, the reliance on irregular but substantial tax increases, alongside a complete ban on e-cigarettes, has created structural pressures that sustain illicit markets.

While the cigarette regime benefits from a legal supply chain, targeted enforcement tools and verifiable tax-compliance mechanisms, the prohibition of e-cigarettes has created a more resource-intensive enforcement model because the entire market operates outside legal channels.

Overall, Singapore’s experience highlights the importance of regulatory balance: well-designed tax and compliance systems can contain illicit activity within legal markets, whereas irregular, high tax increases and blanket prohibition may shift enforcement burdens without effectively eliminating demand or supply.

**(iii) National policy recommendations:**

Singapore’s experience suggests the need to refine its policy framework to better balance control objectives, enforcement efficiency, and market realities. First, while the existing specific excise structure is effective and should be maintained, greater emphasis could be placed on predictability in tax adjustments. The current reliance on irregular but substantial tax increases may amplify incentives for cross-border smuggling. Introducing a more gradual and predictable trajectory—potentially through inflation level, regular increases—could reduce price shocks while preserving the real value of taxes and maintaining public health objectives.

Second, Singapore should continue strengthening its already robust enforcement regime, with a particular focus on intelligence-led and upstream interventions. While domestic deterrence remains strong, sustained seizure volumes indicate persistent supply channels. Enhanced regional cooperation, joint operations, and data-sharing frameworks with neighbouring jurisdictions would help disrupt organised smuggling networks more effectively.

Third, for cigarettes, the current model of targeted enforcement within a legal and traceable supply chain should be further reinforced. Expanding the use of advanced verification technologies, improving excise stamp security, and enhancing risk-based border screening could further contain illicit inflows while maintaining high compliance levels.

Fourth, the regulatory approach to e-cigarettes warrants careful reassessment. The current prohibition-based framework results in a fully illicit e-cigarette market that is resource-intensive to police, generates no fiscal revenue, and limits regulatory control over product safety. This does not imply weakening public-health objectives; rather, it recognises that prohibition can increase

enforcement burdens when consumer demand persists and supply shifts into informal digital and cross-border channels.

Finally, Singapore should strengthen its monitoring and analytical capacity to better understand evolving illicit markets, particularly in the context of emerging non-nicotine products. Regular assessment of illicit market share, consumption patterns, and enforcement outcomes would help ensure that policy remains responsive to changing dynamics, including the growing use of emerging products.

Overall, a more balanced policy approach—combining predictable tax adjustments, a potential shift towards the regulated control of nicotine products, targeted enforcement, and adaptive regulatory frameworks—would better position Singapore to sustain high compliance while managing illicit market risks effectively.

### **3.5. Thailand – Tiered cigarette excise design and administrative frictions**

#### **(i) Overview**

- **Tax policy:** Thailand applies a mixed excise taxation system to tobacco products, combining both ad valorem and specific components. The ad valorem tax is levied as a percentage of the retail price, while a specific tax is imposed as a fixed amount per cigarette. Notably, Thailand’s system is distinctive in that the ad valorem rate is differentiated according to the retail price of cigarette products. Currently, a rate of 25% is applied to lower-priced cigarette packs, whereas a higher rate of 42% is imposed on packs exceeding a defined price threshold.

This two-tier excise structure, introduced in 2017, was intended to mitigate the financial burden on low-income smokers and enhance the equity of the tax system. However, evidence suggests that such tiered structures may generate unintended market distortions. In particular, manufacturers may strategically price products just below the threshold to benefit from the lower tax rate, thereby undermining the effectiveness of the policy in reducing tobacco consumption and maximising revenue. Moreover, the high weighting of the ad valorem component amplifies price dispersion within the legal market, further widening price differentials and incentivising down-trading toward lower-priced products. Thailand maintains a high overall tobacco tax burden, with total taxes accounting for approximately 80% of the retail price of cigarettes. This places the country among the jurisdictions with the highest levels of tobacco taxation in Southeast Asia.

Thailand has implemented successive and substantial excise tax increases, raising rates from 55% in 1990 to 90% by 2017, with the objective of reducing smoking prevalence.<sup>77</sup> However, this has coincided with a high illicit market share of approximately 28.1% in 2024.<sup>78</sup> The fiscal implications are significant, with estimated revenue losses of USD 0.56-0.92 billion annually, representing around 39% of total tobacco excise collections<sup>79,80</sup>. The price relative to income for cigarettes was estimated at 3.62% (as a percentage of per capita GDP) in 2025, and the tobacco tax relative to income at 2.86%.<sup>81</sup>

---

<sup>77</sup> Ketchoo et al. (2011). *Smoking behavior and associated factors of illicit cigarette consumption in a border province of southern Thailand*. *Tobacco Control*

<sup>78</sup> Ferlito (2025). *Illicit Tobacco Trade and Fiscal Losses in ASEAN: A Comparative Analysis*. *Center for Market Education Brief*

<sup>79</sup> Ferlito (2025). *Illicit Tobacco Trade and Fiscal Losses in ASEAN: A Comparative Analysis*. *Center for Market Education Brief*

<sup>80</sup> The Nation (2026). *Thailand loses nearly Bt30bn a year as illegal tobacco market surges*.

<sup>81</sup> Euromonitor (2025). *Global Consumer Trends*.

- **Illicit trade:** Within the Golden Triangle (i.e., Thailand, Myanmar, and Laos), organised groups utilise shared trafficking routes to move methamphetamine, firearms destined for Myanmar, and illicit tobacco products.<sup>82</sup>

Additionally, prices play a central role in shaping consumer behaviour, with legal cigarette packs priced at approximately USD 1.9 compared to around USD 1.1 for illicit alternatives. As a result, illicit tobacco has become deeply embedded in the Thai market, with supermarkets and liquor stores among the most common points of sale.<sup>83</sup>

Youth smoking rates remain a growing concern, supported in part by the availability of low-priced illicit tobacco products. At the same time, the use of e-cigarettes and vaping products appears to be increasing despite Thailand’s prohibition on their importation, sale, and possession.<sup>84</sup>

- **Regulation:** Thailand has maintained an outright prohibition on all e-cigarettes. Enforcement efforts have been notably intensive. Despite this stringent enforcement regime, prohibition has not prevented the emergence and rapid expansion of a substantial illicit market. The number of e-cigarette users in Thailand has increased markedly, rising from approximately 78,000 in 2021 to over 400,000 by 2024.<sup>85</sup> This growth highlights the persistent demand for nicotine alternatives and suggests that prohibition alone has limited effectiveness in suppressing consumption.

Where the cigarette regime — despite its own illicit trade challenges — generates excise revenue, enables product verification through tax stamps, and allows enforcement to target specific supply chain vulnerabilities, the vape prohibition generates zero revenue, offers no basis for product differentiation, and requires enforcement resources to be spread across all users and all products indiscriminately.

## (ii) Assessment:

Thailand’s experience highlights how complex cigarette excise tax structures can weaken fiscal, regulatory, and enforcement outcomes. The introduction of tiered excise rates has increased the complexity of price formation and administration, creating incentives for price clustering and down-trading within the legal market. In particular, manufacturers may strategically align product prices with lower tax thresholds, thereby minimising tax liability and weakening the policy’s intended effects on both revenue generation and consumption reduction. These design features place further pressure on regulatory systems, as multiple price tiers complicate compliance monitoring and product classification, making it more difficult for authorities to verify whether products are correctly taxed and legally distributed. In this context, illicit trade is not only a smuggling problem but also a tax-design and compliance problem, because legal market complexity creates opportunities for both avoidance and evasion.

Moreover, Thailand’s high overall tax burden has widened the price differential between duty-paid legal products and illicit alternatives, creating additional incentives for consumers to shift toward the illicit market. Successive excise tax increases have been accompanied by the continued entry of illicit tobacco products through cross-border channels, while gaps in retail-level compliance allow illicit cigarettes to circulate alongside legal products. Thailand’s enforcement capacity is relatively well developed, but its effectiveness is constrained by porous land borders and regional transit dynamics, through which illicit products move along established trafficking routes before

<sup>82</sup> U4 Anti-Corruption Resource Centre (2025). *Illicit financial flows and development in Southeast Asia*.

<sup>83</sup> Ketchoo et al. (2011). *Smoking behavior and associated factors of illicit cigarette consumption in a border province of Southern Thailand*. *Tobacco Control*

<sup>84</sup> Matrakul et al. (2025). *Exploring stakeholder perspectives on preventing e-cigarette use among at-risk youth: A health literacy approach*. *Tobacco Induced Diseases* (23).

<sup>85</sup> WHO (2025). *Thai government to crack down on vaping as user count hits 400,000*

entering domestic distribution networks. In this context, reliance on border seizures alone has yielded limited returns, while gaps in supply chain visibility and downstream monitoring continue to be exploited by illicit operators.

Overall, Thailand's experience suggests complex tax structures and uneven compliance environments can increase administrative burdens and create opportunities for illicit market activity, limiting the effectiveness of enforcement efforts when not addressed alongside broader institutional and regulatory weaknesses.

### **(iii) National policy recommendations:**

Thailand's experience underscores the importance of aligning taxation, regulation, and enforcement within a coherent policy framework. The current two-tier excise structure, combined with a strong reliance on ad valorem taxation, has introduced price distortions that encourage strategic pricing and consumer down-trading. Consistent with practices in many advanced economies, moving toward a uniform, single-tier excise system, alongside a greater emphasis on the specific component, would simplify administration, reduce intra-market price dispersion, and strengthen the effectiveness of tobacco taxation as both a fiscal and public health instrument.

At the same time, the substantial price gap between legal and illicit cigarettes highlights the need to calibrate tax policy alongside enforcement capacity. Gradual and predictable tax adjustments, supported by continuous monitoring of affordability and price differentials, would help mitigate incentives for illicit substitution while preserving the overall objective of reducing tobacco consumption.

On the regulatory side, the priority should be not to liberalise access but to establish a governance framework that enables effective oversight — something prohibition has demonstrably failed to deliver.

Transitioning from prohibition to a controlled regulatory framework would provide the legal architecture to distinguish compliant suppliers from illicit suppliers and allow enforcement agencies to concentrate resources on the latter. Moreover, regulation would bring into the tax base a consumer segment that currently generates zero government revenue while imposing substantial enforcement costs. Thailand's existing cigarette excise infrastructure — including tax stamps and product registration systems — provides a ready administrative foundation.

At the enforcement level, a regulated framework would allow authorities to move from blanket criminalisation toward targeted, intelligence-led operations against organised supply networks, adulterated products, and online distribution channels.

With respect to enforcement, a shift beyond seizure-focused approaches is needed. Expanding traceability and intelligence-led targeting would increase the cost of participation for organised networks. Given the persistence of established transit routes, effectiveness will depend on sustained pressure on the networks that coordinate and profit from illicit trade, alongside stronger integrity controls to mitigate corruption risks.

### 3.6. Vietnam – Transitioning excise design and downstream compliance gaps

#### (i) Overview

- **Tax policy:** Unlike many international approaches, cigarette taxation since 2006 has relied predominantly on a uniform ad valorem excise applied to ex-factory prices, with rates increasing from 55% to 75% by 2026.<sup>86</sup> A specific excise component is scheduled to be introduced in January 2027<sup>87</sup>, marking a partial shift toward a mixed system. Similar to the Thai experience, a strong reliance on ad valorem taxation creates incentives for manufacturers to keep declared prices low in order to minimise tax liabilities, thereby contributing to lower effective retail prices within parts of the market. In terms of consumer affordability, the price relative to income for cigarettes was estimated at 2.53% (as a percentage of per capita GDP) in 2025 and the tobacco tax relative to income at 0.96%.<sup>88</sup>
- **Illicit trade:** Vietnam’s illicit cigarette market is atypical, driven by demand for higher-priced foreign brands rather than cheaper alternatives.<sup>89</sup> Illicit cigarettes accounted for approximately 23% of total consumption in 2017,<sup>90</sup> generating annual fiscal losses of USD 223-295 million. Jet and Hero (Sumatra Tobacco Trading Company) dominated 85% of the illicit sales, appealing to higher-income consumers despite being around 51% more expensive than domestic options. Historical import (pre-2006) restrictions contributed to the establishment and persistence of these market segments.<sup>91</sup>

Vietnam functions as a significant source country within regional and international illicit tobacco trade networks, including outflows of illicit whites to Malaysia and counterfeit products destined for European markets. Smuggling operations are integrated across borders and linked to broader trafficking activities, including wildlife products, reflecting the role of established logistics networks.

Vietnam, therefore, shows that the illicit tobacco trade is not always driven by the search for cheaper products. In this case, brand preference, historical restrictions and established smuggling routes have created a market in which illicit products can remain attractive even at higher prices. This makes Vietnam an important counterpoint to cases where illicit consumption is mainly driven by affordability pressures.

- **Regulation:** Vietnam has implemented a comprehensive regulatory framework for conventional tobacco products, encompassing restrictions on packaging, advertising, and sales. In parallel, the country has adopted one of the most stringent approaches globally to alternative nicotine products. Since 2025, a complete prohibition has been imposed on electronic cigarettes and heated tobacco products, covering the importation, supply, distribution, transportation, advertising, use, and possession of these products. This ban extends to all product types and components, applies uniformly across the supply chain, including importers, suppliers and consumers, and is intended primarily to prevent youth initiation and uptake.

---

<sup>86</sup> Nguyen et al. (2019). *Illicit Cigarette Consumption and Government Revenue Loss in Vietnam: Evidence from a Primary Data Approach*. *International Journal of Research and Public Health*.

<sup>87</sup> Vietnam Briefing (2026). *Preparing for Vietnam’s Special Consumption Tax Changes in 2026: Key Compliance Highlights*.

<sup>88</sup> Euromonitor (2025). *Global Consumer Trends*.

<sup>89</sup> Nguyen, A. & Nguyen, H. (2020). *Tobacco excise tax increase and illicit cigarette consumption: evidence from Vietnam*.

<sup>90</sup> RTBA (2020). *Illicit Tobacco in the Asia-Pacific Regions: Causes and Solutions*.

<sup>91</sup> Nguyen et al. (2019). *Illicit Cigarette Consumption and Government Revenue Loss in Vietnam: Evidence from a Primary Data Approach*. *International Journal of Research and Public Health*.

From an enforcement standpoint, there is a detailed framework in place for financial penalties for usage, possession and distribution and significant financial penalties and imprisonment for commercial activity and major offences. This framework of stringent regulations and significant penalties for noncompliance, while attractive to governments and theoretically intended to deliver public health outcomes, is often unworkable, as has been the case for Vietnam.

However, evidence suggests that highly restrictive regulatory systems of this nature can be difficult to implement effectively in practice. While comprehensive measures are designed to eliminate access and reduce consumption, they may also create incentives for informal and illicit market activity when underlying demand persists. In the case of Vietnam, the continued presence of illicit tobacco products within the formal retail environment highlights important limitations in enforcement capacity. The availability of illicit cigarettes through registered outlets indicates weaknesses in market surveillance and compliance monitoring, allowing untaxed and unregulated products to penetrate established distribution channels.<sup>92</sup>

This dynamic underscores a broader challenge in tobacco control policy: stringent regulation alone is insufficient without robust and consistent enforcement across all levels of the supply chain.

## (ii) Assessment

Vietnam's experience reflects a transitional configuration in which excise reform has advanced faster than regulatory execution and enforcement capacity. The system is moving from a purely ad valorem structure toward a mixed model, with the aim of improving revenue predictability and limiting price manipulation. While this represents a step toward a more robust design, the effectiveness of this transition will depend on the extent to which the system materially shifts away from reliance on ad valorem taxation and toward a stronger specific excise component.

On the regulatory side, Vietnam has adopted highly stringent measures, including a comprehensive ban on e-cigarettes and heated tobacco products supported by significant penalties. However, evidence suggests that highly restrictive regulatory systems of this nature can be difficult to implement effectively in practice. While comprehensive measures are designed to eliminate access and reduce consumption, they may also create incentives for informal and illicit market activity when underlying demand persists. In the case of Vietnam, the continued presence of illicit tobacco products within the formal retail environment highlights important limitations in enforcement capacity.

Moreover, regulatory controls have been strengthened, including licensing and formal oversight of production and distribution. However, implementation remains uneven, with gaps in product verification and monitoring - particularly at the wholesale and retail levels - allowing illicit products to circulate alongside legal supply and weakening deterrence.

Enforcement capacity has improved but remains constrained at the retail end of the market, where monitoring is resource-intensive and difficult to sustain. While upstream controls are relatively well established, limited visibility at the point of sale reduces the effectiveness of broader enforcement efforts and allows illicit products to reach consumers through informal channels. Overall, Vietnam's case underscores that progress in excise design must be matched by effective regulatory execution

---

<sup>92</sup> Nguyen et al. (2019). *Illicit Cigarette Consumption and Government Revenue Loss in Vietnam: Evidence from a Primary Data Approach*. *International Journal of Research and Public Health*.

and retail-level enforcement. Without addressing downstream compliance gaps, the benefits of transitioning to a mixed system are likely to be only partially realised.

### **(iii) National policy recommendations**

Policy priorities in Vietnam should focus on strengthening coherence between taxation, regulation, and enforcement, rather than further tightening individual components in isolation. The ongoing transition toward a mixed excise system should be accelerated and deepened by increasing the weight of the specific tax component, which would reduce opportunities for price manipulation and improve revenue predictability. A more balanced structure would also help compress price differentials across products, enhancing the effectiveness of taxation in reducing consumption.

However, excise reform alone will not be sufficient. Because Vietnam's illicit market is strongly linked to specific foreign brands and established informal distribution networks, policy should also focus on retail enforcement, consumer awareness, cross-border intelligence-sharing and disruption of the networks that sustain premium illicit supply.

On the regulatory side, priority should be given to tightening retail licensing and accountability. Stronger requirements on retailers and distributors - particularly on record-keeping and verification - would reduce the availability of illicit cigarettes and reinforce the distinction between legal and illegal supply. Moreover, similar to Singapore and Thailand, Vietnam's highly restrictive regulatory approach, particularly toward alternative nicotine products, should transition to a controlled regulatory framework, with stringent product standards, licensing, age restrictions, and marketing prohibitions and should be complemented by realistic enforcement strategies. Without sufficient monitoring capacity, comprehensive bans risk displacing activity into informal markets rather than eliminating it. Strengthening market surveillance, improving institutional accountability, and aligning regulatory ambition with enforcement capacity will be essential to ensuring that existing policies deliver their intended public health and fiscal outcomes.

Enforcement efforts should focus on border entry points and key distribution hubs, alongside expanded use of financial investigations and asset recovery tools. Targeting organisers and financiers, rather than low-level actors alone, would improve deterrence and increase the cost of participation in illicit trade. Overall, excise reforms will only deliver durable gains if matched by stronger regulatory implementation and enforcement. Without such coordination, illicit supply will continue to erode fiscal outcomes and market integrity.

## **4. Concluding remarks**

This paper has examined illicit tobacco trade across ASEAN economies through the interaction of excise tax design, regulatory market structure, and enforcement capacity. The analysis demonstrates that illicit tobacco trade in the region does not follow a uniform pattern but rather reflects a range of structurally distinct market outcomes shaped by countries' positions as source, transit, or destination economies, the design of excise systems, and the degree of institutional coordination across regulatory and enforcement frameworks. Across the region, persistent illicit trade is associated not only with excise tax levels themselves but also with weaknesses in excise tax structures, prohibitive approaches toward novel alternative nicotine products in some countries, low administrative capacity, fragmented compliance systems, uneven enforcement, and gaps in supply chain oversight. The analysis further highlights the role of free trade zones, maritime corridors, and regional

transshipment networks as amplifiers of illicit activity where monitoring and cross-border coordination remain limited.

The comparative assessment underscores that effective control of illicit tobacco markets depends on coherence across three interrelated policy pillars: excise system design, regulatory governance, and enforcement capacity. Excise systems that are administratively simple, predictable, and resistant to manipulation tend to perform more effectively from a revenue perspective, but their effectiveness depends equally on regulatory frameworks capable of channelling demand toward compliant markets and on enforcement systems that extend beyond seizures toward investigation, monitoring, and network disruption. Where these elements evolve unevenly, particularly when tax increases are implemented without parallel investments in compliance and enforcement capacity, incentives for illicit trade can intensify rather than diminish.

The country case studies illustrate these dynamics across different institutional settings. Indonesia demonstrates how complex and tiered excise structures can create opportunities for downtrading, product misclassification, and informal production. Malaysia illustrates how large price differentials, combined with abrupt and high excise tax increases and weak retail-level compliance, can facilitate entrenched cross-border smuggling networks despite substantial enforcement efforts. In the Philippines, comprehensive excise reform strengthened revenue integrity and simplified tax administration, with higher-than-inflation tax increases on tobacco products relative to income becoming the highest in the region and reduced consumer affordability, which led to an increase in illicit trade and highlighted the importance of sustained inter-agency coordination and downstream verification systems.

Singapore's experience highlights the need to maintain its effective specific excise system while introducing more predictable, gradual tax adjustments and possibly reconsidering its prohibition-based policy for new products. Thailand, by contrast, illustrates how tiered excise structures, administrative fragmentation and novel product bans can complicate compliance and reduce enforcement effectiveness despite relatively developed border control systems. Vietnam's experience highlights the importance of proper sequencing and balance in excise reform, as the ongoing transition toward a mixed excise structure—while improving revenue stability and reducing price manipulation—will be insufficient without a stronger shift toward specific taxation, accompanied by the legalisation of regulated alternatives and parallel strengthening of enforcement capacity and retail-level compliance.

Taken together, the evidence across the ASEAN region suggests that illicit tobacco trade cannot be addressed through excise taxation, regulations or enforcement alone. Countries that align tax policy with coherent regulatory frameworks and intelligence-led enforcement systems tend to demonstrate greater resilience to illicit market penetration, whereas persistent gaps between these policy areas contribute to continued leakage and market fragmentation. In order to narrow business opportunities for illegal organisations, policymakers should consider regulating alternative tobacco and nicotine products - combined with taxation, product standards, and licensing requirements.

The findings also reinforce the importance of regional cooperation, particularly along maritime trade routes and transshipment corridors, given the increasingly transnational nature of illicit tobacco supply chains. From a public finance perspective, strengthening revenue integrity therefore requires viewing tobacco excise systems not as isolated fiscal instruments, but as components of a broader governance framework in which taxation, regulation, and enforcement must operate in a coordinated and mutually reinforcing manner.

The central lesson from the ASEAN experience is that illicit tobacco trade cannot be controlled through tax policy, regulation or enforcement in isolation. Revenue integrity depends on the alignment of all three. Excise systems must be simple, predictable and resistant to manipulation; regulatory systems must be enforceable and focused on supply-chain control; and enforcement must move beyond seizures toward intelligence-led investigation, prosecution and financial disruption. Without this institutional alignment,

governments may continue to face persistent revenue leakage, weaker compliance and the expansion of shadow-market activity.

## References

- Ahsan, A., Wiyono, N. H., Veruswati, M., Adani, N., Kusuma, D., & Amalia, N. (2014). Illicit cigarette consumption and government revenue loss in Indonesia. *Globalization and Health*, 10, Article 75. <https://link.springer.com/content/pdf/10.1186/s12992-014-0075-7.pdf>
- Arda, J. R. Y., & Santiago, A. J. A. (2023). Strengthening policies and structures to combat illicit tobacco trade in the Philippines. *Frontiers in Public Health*, 11, Article 1089853. <https://doi.org/10.3389/fpubh.2023.1089853>
- Ardana, I. K., et al. (2025). Enforcement of illicit cigarettes increases excise revenue in Indonesia. *World Customs Journal*. <https://www.worldcustomsjournal.org/article/144234-enforcement-of-illicit-cigarettes-increases-excise-revenue-in-indonesia>
- ASEAN Directors-General of Customs. (2024). 33rd Meeting of ASEAN Directors-General of Customs. <https://globalnation.inquirer.net/242058/asean-customs-chiefs-unite-to-intensify-regional-illicit-trade-crackdown>
- ASEAN. (n.d.). ASEAN Agreement on Customs. <https://asean.org/wp-content/uploads/2020/12/ASEAN-Agreement-on-Customs-2.pdf>
- Bergin, J. (2025, May 26). Illicit financial flows and development in Southeast Asia. U4 Anti-Corruption Resource Centre / Transparency International Knowledge Hub. [https://knowledgehub.transparencycdn.org/kproducts/Illicit-financial-flows-and-development-in-Southeast-Asia\\_ForPublishing.pdf](https://knowledgehub.transparencycdn.org/kproducts/Illicit-financial-flows-and-development-in-Southeast-Asia_ForPublishing.pdf)
- Bureau of Customs, Philippines. (2026). Guidelines on importation: Republic Act No. 10863 (2016). <https://customs.gov.ph/guidelines-on-importation/>
- Bureau of Internal Revenue. (2024). Revenue Memorandum Circular No. 40-2024: New and upgraded internal revenue stamp design for cigarettes, heated tobacco products, and vapor products under the Enhanced Internal Revenue Stamps Integrated System (eIRSIS). <https://bir-cdn.bir.gov.ph/BIR/pdf/RMC%20No.%2040-2024.pdf>
- Chaloupka, F. J., Powell, L. M., & Warner, K. E. (2019). The use of excise taxes to reduce tobacco, alcohol, and sugary beverage consumption. *Annual Review of Public Health*, 40, 187–201. <https://doi.org/10.1146/annurev-publhealth-040218-043816>
- Chaloupka, F. J., Yurekli, A. A., & Fong, G. T. (2010). Cigarette excise taxation: The impact of tax structure on prices, revenues, and cigarette smoking (NBER Working Paper No. 16287). National Bureau of Economic Research. <https://www.nber.org/papers/w16287>
- CISDI. (2026). Ministry of Finance step back: Policy to increase cigarette excise layer. <https://cisdi.org/siaran-pers/layer-cukai-rokok>
- Crossen, S. (2006). Tobacco taxation in the European Union (CESifo Working Paper No. 1718). CESifo. [https://www.ifo.de/DocDL/cesifo1\\_wp1718.pdf](https://www.ifo.de/DocDL/cesifo1_wp1718.pdf)
- Crossen, S. (2020). Excise taxation for domestic resource mobilization (CESifo Working Paper No. 8442). CESifo. <https://www.ifo.de/en/cesifo/publications/2020/working-paper/excise-taxation-domestic-resource-mobilization>
- EU-ASEAN Business Council & Euromonitor International. (2026). Inside ASEAN's illicit tobacco trade. [https://eu-asean.eu/wp-content/uploads/2026/05/EU-ABC%E2%80%93Euromonitor-Illicit-Tobacco-Study\\_FINAL.pdf](https://eu-asean.eu/wp-content/uploads/2026/05/EU-ABC%E2%80%93Euromonitor-Illicit-Tobacco-Study_FINAL.pdf)
- Euromonitor International. (2025). Global Consumer Trends. <https://go.euromonitor.com/report-2026-global-consumer-trends.html>

- Ferlito, C. (2025). Illicit tobacco trade and fiscal losses in ASEAN: A comparative analysis (Policy Brief No. 9). Center for Market Education. <https://marketedu.me/wp-content/uploads/2025/11/202510-Policy-Brief-No-9-Illicit-Tobacco-Trade-and-Fiscal-Losses-in-ASEAN.pdf>
- Government of the Philippines. (2019). An Act Increasing Excise Tax on Tobacco Products, Heated Tobacco Products and Vapor Products: Republic Act No. 11346. <https://www.digest.ph/laws/an-act-increasing-excise-tax-on-tobacco-products-heated-tobacco-products-and-vapor-products>
- Hidayat, B., Thabrany, H., & Ahsan, A. (2016). Impact of specific excise rate simplification on cigarette consumption and government revenue in Indonesia. *World Customs Journal*. <https://www.worldcustomsjournal.org/article/115309-impact-of-specific-excise-rate-simplification-on-cigarette-consumption-and-government-revenue-in-indonesia>
- International Monetary Fund. (2019). Fiscal policy and development: Human, social, and physical investments for the SDGs. IMF Staff Discussion Note. <https://www.imf.org/en/publications/staff-discussion-notes/issues/2019/01/18/fiscal-policy-and-development-human-social-and-physical-investments-for-the-sdgs-46444>
- Kaiser, K., Bredenkamp, C., & Iglesias, R. (2016). Sin tax reform in the Philippines: Transforming public finance, health, and governance for more inclusive development. World Bank. <https://openknowledge.worldbank.org/entities/publication/41209b66-52be-5f90-83e7-c8d74b12b5b2>
- Kasri, R. A., Ahsan, A., Wiyono, N. H., Jacinda, A. R., & Kusuma, D. (2021). New evidence of illicit cigarette consumption and government revenue loss in Indonesia. *Tobacco Induced Diseases*, 19(November), 84. <https://doi.org/10.18332/tid/142778>
- Ketchoo, C., Sangthong, R., Chongsuvivatwong, V., & McNeil, E. (2011). Smoking behaviour and associated factors of illicit cigarette consumption in a border province of southern Thailand. *Tobacco Control*, 22(4), 255–260. <https://tobaccocontrol.bmj.com/content/22/4/255>
- Koya, R. K., Branston, J. R., & Gallagher, A. W. A. (2022). Measuring Malaysia's illicit tobacco trade: An excise tax gap analysis. *Journal of Illicit Economies and Development*, 4(1), 58–70. <https://doi.org/10.31389/jied.151>
- Ministry of Finance Singapore. (2017, August 1). Enforcement actions against illegal sale of contraband cigarettes. Government of Singapore. <https://www.mof.gov.sg/news-resources/newsroom/enforcement-actions-against-illegal-sale-of-contraband-cigarettes/>
- New Straits Times. (2026). Illicit cigarettes make up 60pct of Malaysia market, report says. <https://www.nst.com.my/news/nation/2026/04/1423102/illicit-cigarettes-make-60pct-malaysia-market-report-says>
- Nguyen, A., & Nguyen, H. T. (2020). Tobacco excise tax increase and illicit cigarette consumption: Evidence from Vietnam. *Tobacco Control*, 29(Suppl. 4), s275–s280. <https://doi.org/10.1136/tobaccocontrol-2019-055301>
- Nguyen, N. M. T., Nguyen, T. T. H., Hoang, V. M., Nguyen, H. T. T., & Ross, H. (2019). Illicit cigarette consumption and government revenue loss in Vietnam: Evidence from a primary data approach. *International Journal of Environmental Research and Public Health*, 16(11), Article 1960. <https://doi.org/10.3390/ijerph16111960>
- OECD. (2025). Revenue Statistics in Asia and the Pacific 2025: Personal income taxation in Asia and the Pacific. OECD Publishing. <https://doi.org/10.1787/6c04402f-en>
- Philippine Statistics Authority. (2026). Year-on-year inflation rates in the Philippines, all items. <https://psa.gov.ph/price-indices/cpi-ir>
- Prutipinyo, C., & Sirichotiratana, N. (2025). A case study of Thailand's preparation for joining the protocol to eliminate illicit trade in tobacco products. *Tobacco Induced Diseases*, 23(Suppl. 1), Article A452. <https://www.tobaccoinduceddiseases.org/A-case-study-of-Thailand-s-preparation-for-joining-the-protocol-to-eliminate-illicit,206382,0,2.html>
- Raguraman, A. (2026, February 12). Budget 2026: Smokers to pay more for tobacco products as 20% tax hike kicks in on Feb 12. *The Straits Times*. <https://www.straitstimes.com/singapore/budget-2026-smokers-to-pay-20-more-for-tobacco-products-from-feb-12>
- Retail and Trade Brands Advocacy. (2020). Illicit tobacco in the Asia-Pacific region: Causes and solutions. <https://www.rtbacommerce.com.au/assets/illicit-tobacco-in-the-asia-pacific-region.pdf>

- Senate Ways and Means Committee Hearing. (2025, January). Comparative estimates of illicit cigarette market penetration, 2019 to 2024 [Video]. YouTube. <https://www.youtube.com/live/UUy4af7tgEE>
- Shang, C., Chaloupka, F. J., Zahra, N., & Fong, G. T. (2014). Cigarette excise tax structure and cigarette prices: Evidence from the Global Adult Tobacco Survey and the U.S. National Adult Tobacco Survey. *Nicotine & Tobacco Research*, 16(Suppl. 1), S3–S9. [https://academic.oup.com/ntr/article-abstract/16/Suppl\\_1/S3/1220367?redirectedFrom=fulltext](https://academic.oup.com/ntr/article-abstract/16/Suppl_1/S3/1220367?redirectedFrom=fulltext)
- Singapore Customs. (2026). Depositing goods in the free trade zones: Customs Circular No. 01/2020. <https://www.customs.gov.sg/doing-business/export-operations/export-procedures/depositing-goods-in-the-free-trade-zones/>
- Singapore Statutes Online. (2026). Customs Act 1960. <https://sso.agc.gov.sg/Act/CA1960?Any=road+traffic+act+bicycles&ProvIds=pr128L-&ViewType=Advance&WiAl=1&>
- Soedarsono, S., et al. (2026). Excise simplification to address downtrading: Towards a more effective tobacco tax policy in Indonesia. *World Customs Journal*. <https://www.worldcustomsjournal.org/article/158704-excise-simplification-to-address-downtrading-towards-a-more-effective-tobacco-tax-policy-in-indonesia>
- SureBoh Singapore. (2025, July 30). Nearly 4 in 10 vape users in Singapore buy e-cigarettes via Telegram, survey results shows. <https://sureboh.sg/2025/07/30/nearly-4-in-10-vape-users-in-singapore-buy-e-cigarettes-via-telegram-survey-results-shows/>
- The Nation. (2026). Thailand loses nearly Bt30bn a year as illegal tobacco market surges. <https://www.nationthailand.com/business/economy/40063857>
- The Star. (2025, August 26). Smoking products brought in RM15.3 billion in duties since 2021, says Finance Ministry. <https://www.thestar.com.my/news/nation/2025/08/26/smoking-products-brought-in-rm153bil-in-duties-since-2021-says-finance-ministry>
- The Straits Times. (2025). Spike in vehicles seized at borders smuggling contraband items in 2025: Singapore Customs. <https://www.straitstimes.com/singapore/courts-crime/spike-in-vehicles-seized-at-borders-smuggling-contraband-items-in-2025-singapore-customs>
- Tobacco Reporter. (2026, March 10). Illicit cigarettes threaten Malaysia’s micro-businesses. <https://tobaccoreporter.com/2026/03/10/illicit-cigarettes-threaten-malysias-micro-businesses/>
- TRACIT. (2025). Examining the negative impact of illicit trade on the ASEAN Community Vision 2025. [https://www.tracit.org/uploads/1/0/2/2/102238034/tracit\\_aseancommunity\\_june2023.pdf](https://www.tracit.org/uploads/1/0/2/2/102238034/tracit_aseancommunity_june2023.pdf)
- United Nations Conference on Trade and Development. (2025). Tracking illicit financial flows for effective action. Inter-agency Task Force on Financing for Development, Financing Policy Brief Series. [https://financing.desa.un.org/sites/default/files/2025-02/Brief%20Series%20-%20UNCTAD\\_IFFs.pdf](https://financing.desa.un.org/sites/default/files/2025-02/Brief%20Series%20-%20UNCTAD_IFFs.pdf)
- Vietnam Briefing. (2026). Preparing for Vietnam’s special consumption tax changes in 2026: Key compliance highlights. <https://www.vietnam-briefing.com/news/vietnam-updates-special-consumption-tax-system-new-compliance-starts-in-2026.html/>
- World Bank. (2019). Confronting illicit tobacco trade: A global review of country experiences: Executive summary. World Bank Group Global Tobacco Control Program. <https://thedocs.worldbank.org/en/doc/377251548869371433-0090022019/original/WBGTobaccoIllicitTradeExecutiveSummarywebFINAL.pdf>
- World Bank. (2019a). Malaysia: Addressing the illicit flow of tobacco products (Technical Report of the World Bank Group Global Tobacco Control Program). World Bank Group. <https://thedocs.worldbank.org/en/doc/584471548434954318-0090022019/original/WBGTobaccoIllicitTradeMalaysia.pdf>
- World Bank. (2019b). Philippines: Addressing the illicit flow of tobacco products (Technical Report of the World Bank Group Global Tobacco Control Program). World Bank Group. <https://thedocs.worldbank.org/en/doc/502721548435006600-0090022019/original/WBGTobaccoIllicitTradePhilippines.pdf>
- World Health Organization. (2020). Tobacco taxation systems: Ideal tax structure. [https://extranet.who.int/fctcapps/sites/default/files/kh-media/KH\\_B2B-9\\_Tobacco-Taxation-Systems.pdf](https://extranet.who.int/fctcapps/sites/default/files/kh-media/KH_B2B-9_Tobacco-Taxation-Systems.pdf)

- World Health Organization. (2021). Examples of current practices in the implementation of Article 12 (free zones and international transit) of the Protocol to Eliminate Illicit Trade in Tobacco Products. <https://iris.who.int/server/api/core/bitstreams/bd73e7ac-a262-4285-b78a-bcb39dec44c7/content>
- World Health Organization. (2025). Thai government to crack down on vaping as user count hits 400,000. <https://extranet.who.int/fctcapps/fctcapps/fctc/kh/TIIinterference/news/thai-government-crack-down-vaping-user-count-hits-400000>
- Yusof, Z. M. (2025). Number of seized contraband cigarettes remains high; some turn to cigarettes over vapes. *The Straits Times*. <https://www.straitstimes.com/singapore/courts-crime/number-of-seized-contraband-cigarettes-remain-high-some-turn-to-cigarettes-over-vapes>