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# Tobacconomics Cigarette Tax Scorecard

## Scoring Component Policy Note – Tax Structure

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**Authors:** This policy note was written by the Tobacconomics team: Frank Chaloupka, PhD; Jeff Drope, PhD; Erika Siu, JD LLM; Violeta Vulovic, PhD; Michal Stoklosa, PhD; Maryam Mirza, PhD; Germán Rodriguez-Iglesias, MSc; and Hye Myung Lee, MPH.

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The Tobacconomics Cigarette Tax Scorecard evaluates countries' cigarette tax systems based on a five-point rating system that incorporates international guidance and best practices in tobacco taxation developed by the World Health Organization (WHO), the WHO Framework Convention on Tobacco Control (FCTC), the World Bank (WB), and academics and researchers worldwide. The five-point index uses data from the World Health Organization's biennial *Report on the Global Tobacco Epidemic (RGTE)* to score countries on the following four components: cigarette price, changes in the affordability of cigarettes over time, the share of taxes in retail cigarette prices, and the structure of cigarette taxes. The total score reflects an average of the four component scores.

## Why is tax structure important?

Tobacco tax structures—the types of taxes that are applied to tobacco products—play an important role in the effectiveness of taxation in reaching the public health and revenue goals of governments. Tobacco products are typically subject to excise taxes, which are either specific or ad valorem. Specific taxes are assessed per unit of the product (for example, a stick or a pack), while an ad valorem excise tax is a tax that is assessed as a percentage of value (for example, manufacturer price or retail price). In some places, both ad valorem and specific taxes are levied, thereby comprising a mixed (or hybrid) system. Still other jurisdictions set different tax levels depending on the product features, such as the length of the cigarette or the pack's price category. Many of these tax structures are called tiered tax systems.

The structure of tobacco excise taxes greatly affects cigarette price and its variation, which further affects smoking behavior. Uniform specific excise taxes reduce price variability, while ad valorem excises and tiered tobacco tax structures result in greater variability in prices (Chaloupka et al., 2010, 2014; Shang et al., 2014; WHO, 2010, 2014). The greater variability in prices creates more opportunities for tobacco users to trade down to cheaper brands in response to tax and price increases, rather than quitting or cutting back on consumption (World Bank, 2017; WHO, 2010, 2014). Specific excise taxes are reported to be more effective in raising consumer prices compared to ad valorem taxes and, thus, result in greater reductions in cigarette consumption (Delipalla & Keen, 1992; Delipalla & O'Donnell, 2001; WHO, 2010). Studies have shown that complicated tax structures, such as tiered tax structures and systems with a greater share of ad valorem taxes, are associated with higher cigarette consumption compared to uniform specific tax structures (Shang et al., 2019).

The ease of administration is another key determinant linking tax structure and government revenue. The WHO FCTC's Article 6 Guidelines and the *WHO Technical Manual on Tobacco Tax Administration* emphasize the benefits of uniform specific taxation since it is easier to implement and administer. This is because uniform specific taxes are based only on volume/quantity and not on the value of the product, which can be difficult to ascertain (WHO, 2010, 2014). Ad valorem taxes and/or tiered tax structures are more difficult to administer because they are more complex and create more opportunities for tobacco manufacturers to avoid and/or manipulate the tax. In tiered systems, manufacturers have strong incentives to try to place their products in tiers with lower tax rates. Similarly, with an ad valorem tax, tobacco companies can reduce tax liability by pricing their product on a lower level. Furthermore, due to the complexity of ad valorem taxes and tiered tax structures, tax revenues from these taxes are more difficult to forecast, less stable, and more dependent on industry pricing strategies (WHO, 2014).

In addition to the type of excise tax, there are other features in the tax structure that can help to maintain or increase the positive effects of cigarette taxes. First, since the impacts of a specific tax tend to erode over time—especially in countries experiencing rapid economic growth and/or high inflation—linking the

specific tax rates to the inflation rates and income growth can help maintain the impact of the tax and thus keep the affordability of tobacco products from increasing over time (WHO, 2014).

Second, the base of the ad valorem tax has significant consequences. Generally, the retail price as the base is most effective at preventing tax avoidance and evasion because it is the most transparent. It is also typically the highest price. In contrast, in systems where the ad valorem tax is based on the manufacturer's (ex-factory) price; the cost, insurance, and freight (CIF) price; or the wholesale price, manufacturers can simply evade the tax by artificially lowering the product price at the earlier stages of the value chain where the tax is assessed and move their costs further up the chain (WHO, 2014).

Third, some governments that levy an ad valorem tax also utilize a minimum tax. Such a tax creates a price floor below which cigarettes cannot be sold, pushing up the prices of economy brands and reducing the price variation among brands. Governments not only gain more revenue from the higher-priced brands but a minimum tax guarantees that amount of revenue from lower-priced brands (WHO, 2014). While minimum pricing policies can also set a price floor, the revenues from these policies go to the industry rather than to the government.

For these reasons, the cigarette tax structure is a key part of evaluating the performance of a country's cigarette tax system. While the type of excise tax mainly determines the performance of the country's tax structure, other important features are also incorporated in the evaluation scheme to conduct a more comprehensive assessment of the tax structure for each country.

## Scoring criteria of tax structure in the Cigarette Tax Scorecard

The Scorecard adopts the following scoring scheme:

**Scoring – Cigarette Tax Structure:**

- 5: A uniform specific tax with automatic adjustment or a mixed system with greater share of specific tax, with an automatic adjustment for the specific component, the retail price as the base for the ad valorem component, and a minimum tax to lift the prices of economy brands
- 4: Uniform specific or mixed with greater share of specific with some other features but not all
- 3: Uniform mixed system with greater share of ad valorem
- 2: Uniform ad valorem
- 0: No excise

## Strengths and weaknesses of the measure

A major strength of the tax structure measure is that, among all four measures constituting the cigarette tax score, it is the only measure that captures dynamics of price distribution among brands. Whereas tax share, change in affordability, and absolute price focus on one product price only (the price of the most-sold brand), the extent of variation of prices among brands available on the market is affected by the tax structure. The higher the variation in cigarette prices, the greater the ability of smokers to circumvent the tax by switching to less expensive products. Tax structures that result in a narrower price distribution are more effective in reaching public health goals.

Another key aspect of cigarette taxation that is being captured by the tax structure measure is the ease of tax administration and reduced opportunities for tax avoidance that are enabled by simplicity. Very complicated tax structures with multiple tax tiers are typically a result of governments yielding to tobacco industry pressure, which is often seen in countries with lower capacity or in the early stages of reforming their tobacco tax regimes. The tiers often serve to secure the interest of different actors in the tobacco industry by providing preferential tax treatment to certain groups (for example, companies with specific products and very commonly those that are produced domestically). It is also easier for the tobacco companies to avoid or evade taxes under complicated tax systems. Conversely, it is more difficult to manipulate systems that are based on a uniform specific tax.

As with the other three measures, the tax structure measure has potential weaknesses. Countries with a system based on a specific tax may obtain a high score for their cigarette tax structure, even with a low tax and relatively low cigarette prices. This is the case in several Caribbean countries (for example, Saint Lucia as well as Saint Vincent and the Grenadines) that score high on the tax structure measure by applying a uniform specific tax while keeping the tax rates very low.

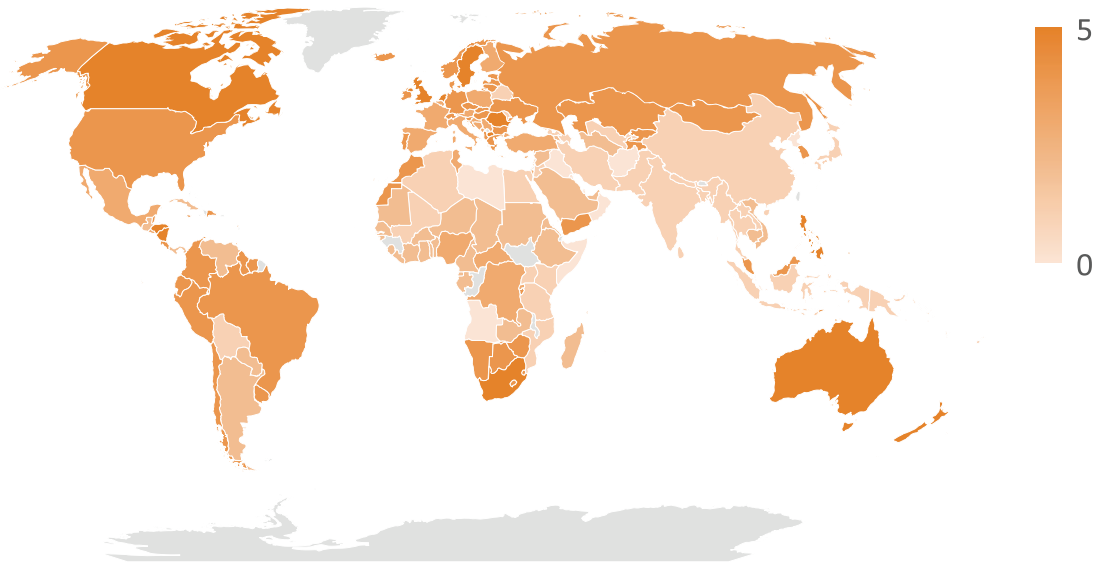
The scoring system provides lower scores to countries that use ad valorem systems because, as described above, those systems provide more opportunities for tax circumvention, allow for larger variation among product prices, and are more difficult to administer. However, countries can successfully apply a high ad valorem tax along with a high minimum tax that results in high prices and high tax shares. Among them are Finland and France, which both have a mixed tax with a greater portion of the ad valorem tax but with a relatively high minimum excise tax rate. In such cases, the high minimum excise tax plays a vital role in decreasing price variation and keeping prices high. Both countries score three out of five on their tax structure score despite having rather high taxes relative to other countries, a high minimum tax to raise the prices of the cheapest cigarettes, and a strong tax administration to safeguard effective tax collection.

## Tax structure scores in 2018

When applying this scoring scheme to the data reported in the 2019 *RGTE*, only 12 countries meet the highest benchmark. Among them, seven countries apply a uniform specific tax with an automatic annual adjustment at or above the inflation rate (Canada, Honduras, New Zealand, Nicaragua, Philippines, and South Africa) or based on wage increases (Australia). The other five countries are European region countries that apply a mixed system with a greater share of specific tax, an automatic adjustment for the specific component, a retail price base for the ad valorem component, and a minimum tax (Netherlands, North Macedonia, Romania, Sweden, and the United Kingdom). Apart from the 15 countries that scored zero on the tax structure measure due to the lack of an excise tax, there are another 31 countries that scored only one point due to having a tiered tax structure. The tax structure score for all countries is presented in Figure 1.

Countries in the same regions and/or income groups tend to have similar excise systems. For example, many countries in the Western Pacific region rely on uniform specific excises whereas a number of countries in the African region rely solely on ad valorem excise taxes. In general, many low-income countries rely on ad valorem taxes, while a large number of high-income countries have either a uniform specific tax or a mixed system.

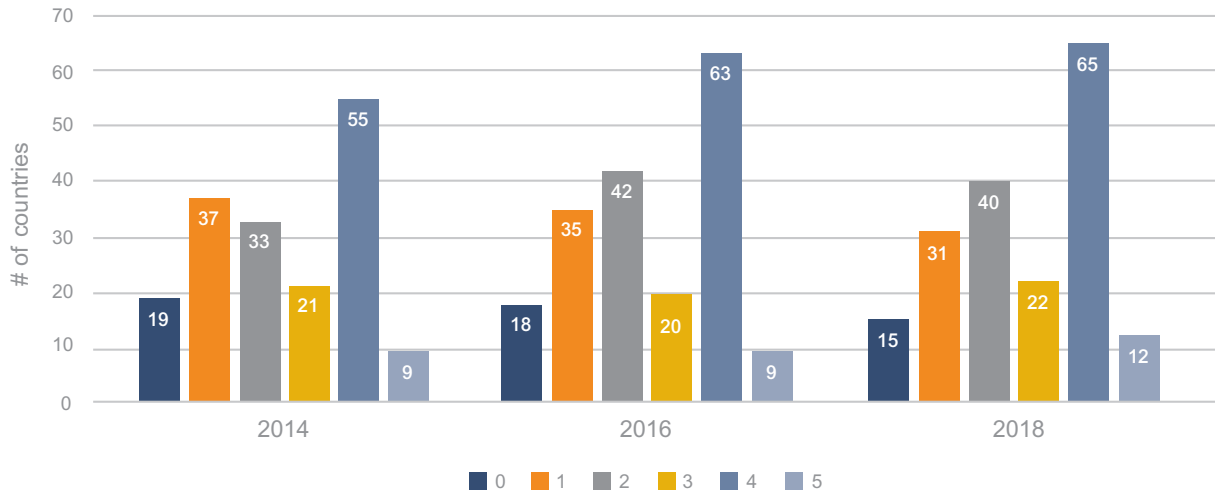
**Figure 1** Tax structure scores, 2018




## Tax structure score changes over time (2014–2018)

There have been small changes in the score distribution of tax structure over time (Figure 2). Between 2014 and 2018, the number of countries with the lowest scores (0 and 1) decreased slightly, while the number of those with higher scores (4 and 5) increased.

**Figure 2** Evaluated countries by tax structure score and by year

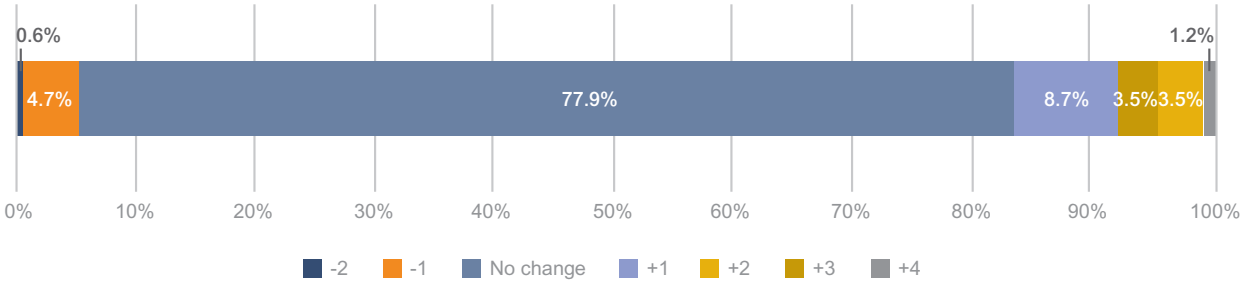



Notes: Based on 174 countries in 2014, 187 in 2016, and 185 in 2018. For 169 countries the score was available in all three years.
Source: Authors' calculations

Most countries—134 in total (77.9 percent)—did not improve their tax structure scores from 2014 to 2018 (Figure 3). Twenty-nine countries (16.9 percent), however, improved their score. The largest improvements, by four points, were in the Philippines and Belize. The Philippines shifted from a tiered tax structure to a specific system with automatic inflation adjustment in 2017, a part of a larger tax reform from the years 2013–2017 that included a series of tax rate increases and tax structure overhauls (the four-tiered system was collapsed to be uniform). Belize's score improvement is due to the replacement of special import duties with an excise tax between 2014 and 2016. Another six countries improved their scores by three points, converting from a tiered to either a specific system or a mixed system that relies more on specific taxes.

The tax structure score only dropped in nine countries. The largest decrease—by two points—happened in Turkmenistan, which moved from a uniform specific to a uniform ad valorem tax between 2014 and 2016. The score dropped by one point in eight countries, including in Thailand, which in 2017 introduced a tiered tax with expensive brands being charged a higher tax rate than cheaper ones, and in Kenya, which reinstated a tiered specific excise system for cigarettes based on package characteristics and retail selling price in 2015.

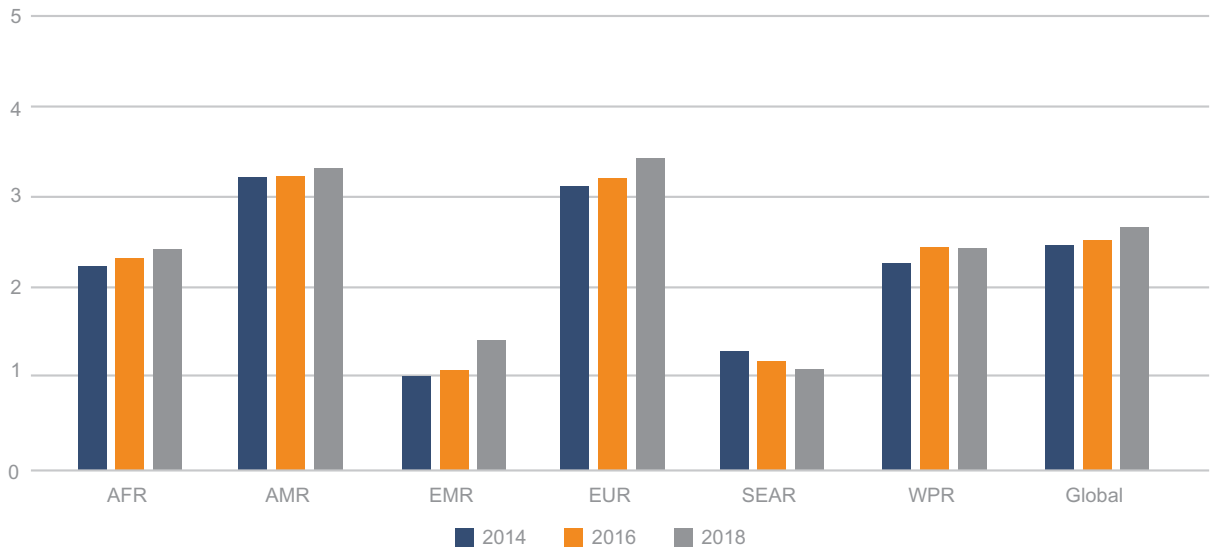
**Figure 3** Percent distribution of score changes in tax structure between 2014–2018




Notes: Based on 174 countries in 2014, 187 in 2016, and 185 in 2018. For 169 countries the score was available in all three years. Percentages are calculated based on 172 countries where scores were available for both 2014 and 2018.
Source: Authors' calculations

While the global average score increased from 2.48 (2014) to 2.69 (2018), the average score improved the most in the Eastern Mediterranean region, where the average score increased from 1.00 (2014) to 1.43 (2018) (Figure 4). The average scores increased in all WHO regions except for countries in the South-East Asian region where there was a small decrease in the tax structure score from 1.30 (2014) to 1.10 (2018).

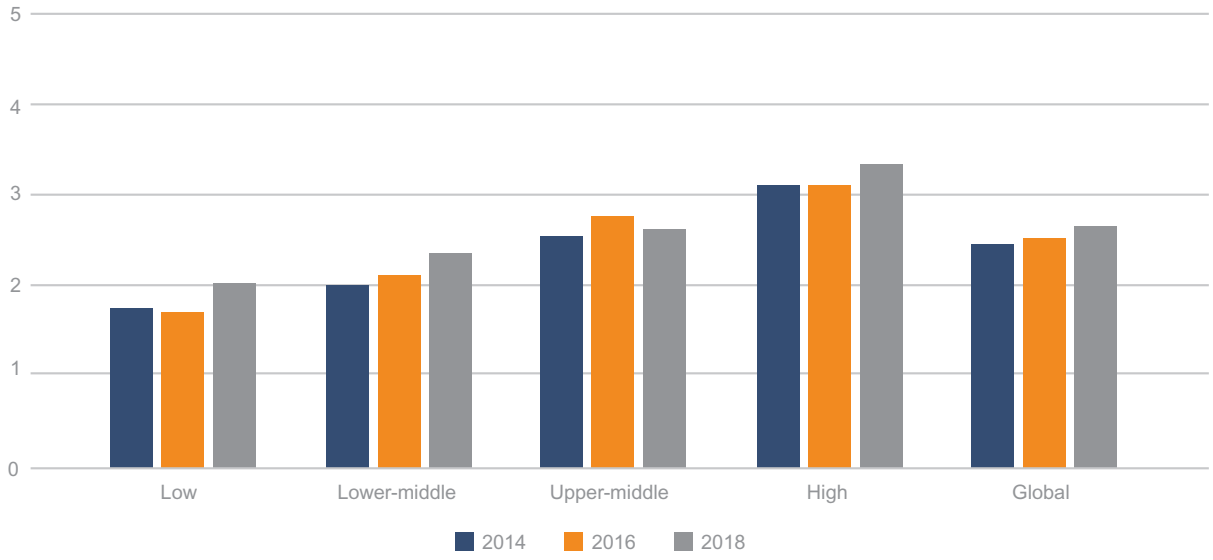
**Figure 4** Average score of tax structure, by WHO region and by year




Notes: WHO regional groupings are AFR = African Region, AMR = Region of the Americas, EMR = Eastern Mediterranean Region, EUR = European Region, SEAR = South-East Asian Region, WPR = Western Pacific Region. Based on 174 countries in 2014, 187 in 2016, and 185 in 2018. For 169 countries the score was available in all three years.
Source: Authors' calculations

Based on the country income groups by the World Bank, the largest increase in average scores was found in lower-middle-income countries, from 2.03 in 2014 to 2.36 in 2018 (Figure 5). On the other hand, the smallest improvement in scores was observed in upper-middle-income countries, where the score increased from 2.56 (2014) to 2.64 (2018).

**Figure 5** Average score of tax structure, by World Bank income group and by year




Notes: Based on 174 countries in 2014, 187 in 2016, and 185 in 2018. For 169 countries the score was available in all three years.
Source: Authors' calculations

## Policy recommendations

The Scorecard results on tax structure show that there is considerable room to improve cigarette tax structures. For example, multiple countries scored zero throughout all three years, and 66 countries scoring less than three in the initial year show decreasing or flat scores over time. These low scores on tax structure provide some indication of the weaknesses in current systems that could be readily addressed by tobacco tax policy makers.

Better-designed cigarette tax structures are effective at reducing tobacco use because these structures are more likely to lead to higher, less-variable prices, which the evidence demonstrates reduce both smoking prevalence and intensity. Therefore, better structures can help to reduce the burden of smoking-attributable diseases and, thus, improve population health. Large and regular increases in cigarette tax rates ensure that the product prices remain high and that cigarettes become less affordable over time. An appropriate tax structure provides the platform for those tax increases, safeguards their effectiveness, and ensures that all brands are equally covered by cigarette tax policies. These well-designed tax structures help facilitate higher and more effective cigarette taxes, which not only help countries achieve public health goals but also increase government revenue that can be allocated to development priorities, including health and education.

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