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Tobacco Control Policy

Tobacconomics Cigarette Tax Scorecard

2nd Edition



Scoring Component Policy Note – Tax Share


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About Tobacconomics: Tobacconomics is a collaboration of leading researchers who have been studying the economics of tobacco control policy for over 30 years. The team is dedicated to helping researchers, advocates, and policy makers access the latest and best research about what's working—or not working—to curb tobacco consumption and its economic impacts. As a program of the University of Illinois Chicago, Tobacconomics is not affiliated with any tobacco manufacturer. Visit www.tobacconomics.org or follow us on Twitter at [www.twitter.com/tobacconomics](https://twitter.com/tobacconomics).

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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)* (WHO, 2021) 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 share important?

The share of tax in retail price is a critical tax performance measure. Higher tax shares generally result in higher retail prices, reduced tobacco consumption, and greater government gains in revenue. The share of taxes in cigarette prices has been the focus of multiple recommendations and has been the most widely used metric for assessing the strength of tobacco tax systems and performance globally. These recommendations have varied with respect to which taxes are included and what the recommended share of tax should be. Some experts focus on the share of excise taxes in retail cigarette prices, while others include additional taxes such as import duties, general sales taxes, and value added taxes (VAT). Despite these differences, all recommend that taxes account for most of the retail price.

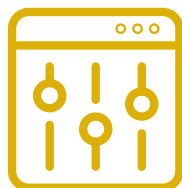
There are two common and related benchmarks of tobacco tax performance that many practitioners and proponents of tobacco taxation use. The first benchmark is whether the sum of all taxes is greater than 75 percent of the average retail price of a tobacco product (for example, cigarettes), and the second benchmark is whether excise taxes account for at least 70 percent of tobacco product retail prices. When taxes are increased to these levels—provided prices are sufficiently high—they lead to significant price increases, motivating many users to quit and deterring large numbers of youth from starting to use tobacco, thereby contributing to large reductions in death and disease caused by tobacco use. Tax share is also a good measure of a government's ability to affect the prices of tobacco products more directly and generate revenue from these taxes.

The 75-percent total tax target has been used consistently by the World Health Organization (WHO) and appears in all editions of the *RGTE* as the minimum benchmark to which governments should strive (WHO, 2010, 2014, 2015, 2017, 2019, 2021). It draws from the seminal World Bank report, *Curbing the Epidemic*, on the economics of tobacco control, which recommends that taxes account for two-thirds to four-fifths of the retail price (World Bank, 1999). The World Bank based this target on tax shares in high-income countries that were successfully using taxes as part of their tobacco control efforts.

The 70-percent excise target first appeared in the *WHO Technical Manual on Tobacco Tax Administration* in 2010 and resulted from an earlier meeting of tobacco tax practitioners and researchers from finance ministries, the World Bank, the International Monetary Fund, several leading universities, and other institutions (U.S. National Cancer Institute & World Health Organization, 2016; WHO, 2010). The participants developed the benchmark as an aspirational target that was achievable in most countries but that almost no country had yet reached. The shift to an excise tax-based benchmark reflected the acknowledgment that excise taxes were a more refined tool to stimulate higher prices of tobacco products. Importantly, unlike more general taxes (for example, a VAT) that are typically assessed on most or all goods and services, excise taxes are applied to a small class of products, thereby affecting these prices relative to all other products.

Scoring criteria of tax share

The Scorecard uses the average of the score on total tax share and the score on excise tax share. The shares are based on the price of the most-sold brand of cigarettes. The scoring rubric for each metric is as follows:



Scoring – Total Tax Share:

- 5: 75% or higher
- 4: 65% ≤ share < 75%
- 3: 55% ≤ share < 65%
- 2: 45% ≤ share < 55%
- 1: 35% ≤ share < 45%
- 0: Share < 35%

Scoring – Excise Tax Share:

- 5: 70% or higher
- 4: 60% ≤ share < 70%
- 3: 50% ≤ share < 60%
- 2: 40% ≤ share < 50%
- 1: 30% ≤ share < 40%
- 0: Share < 30%

Strengths and weaknesses of the measure

A major strength of both tax share measures is that they are relatively simple and intuitive: a higher number is a better score, and research consistently shows that a country reaching either or both benchmarks is typically using cigarette taxes effectively as a public health tool to drive down smoking. The measures are consistent and, consequently, can be used effectively to evaluate progress on cigarette taxation over time and across jurisdictions. These measures are increasingly gaining familiarity. Because the 75-percent benchmark has existed for nearly 20 years and the 70-percent benchmark for more than the last decade, they are both well known not just in the public health community but also in the domain of public finance.

Among the four components, the tax share score is the only component using the average of two scores (excise tax share and total tax share). This composite measure is strong because the two tax share scores complement each other as they measure related but also distinct dynamics.

Moreover, both measures are typically straightforward to calculate. Generally, the 70-percent excise share is easier to calculate because it is only necessary to know the excise taxes that are applied. In most countries, even the 75-percent total tax share measure is relatively easy to calculate as most significant taxes such as VAT or sales taxes are largely transparent.

Since tax share is a proportional measure of the tax to the price, there could be potential interpretive challenges when a low or high tax share results from price increases. This can work several ways that make the measure potentially less straightforward. For example, after a tax increase, the share could remain the same or even decrease if the industry raises prices more than the tax increase (which is called “over-shifting”). Tobacco companies over-shift to increase profits and then blame their price increase on the tax. Since the overall goal is higher price, it may be slightly misleading when the tax share score does not improve after a tax increase. New Zealand is a good example of this dynamic: even though it has one of the highest specific excise taxes in the world it scores a four on the excise tax share of price measure because the industry has also raised prices, which is exactly the policy’s intended result.

Similarly, for countries with low production prices—even with a high tax share—retail prices can still be very low and tobacco products can remain extremely affordable. For example, in Argentina, taxes meet the 75-percent total tax and 70-percent excise tax benchmarks, but cigarettes in the country remain very affordable. The cost of producing tobacco products in Argentina is low and, as a result, even when meeting the benchmarks tobacco products remain relatively inexpensive. In these cases, pairing this score with cigarette price and affordability change scores is vitally important. This is particularly true for countries where the tax share is high. The cigarette price level is particularly helpful in such cases to examine whether the country’s policies are continuing to push the price up. Ultimately, of course, the goal is to have both high price and high tax share, as in many European Union countries.

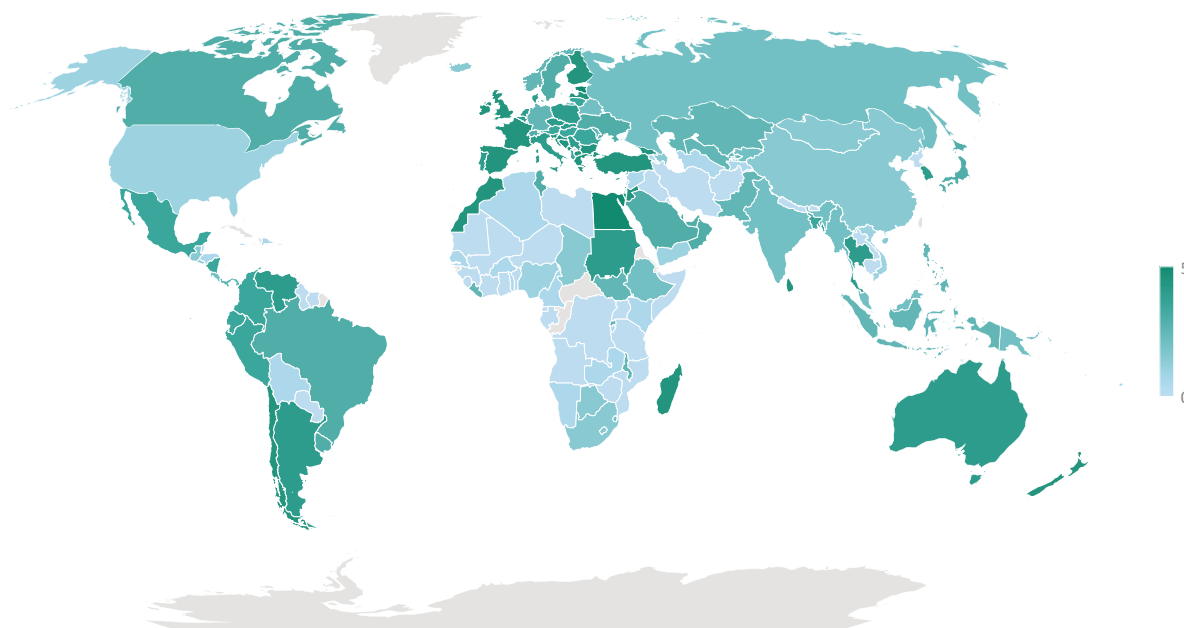
Tax share can also be misleading in countries that are scoring well but have unambitious plans for future tax adjustments upwards. This is perhaps especially true in countries experiencing rapid income growth where the government is not considering this growth in the adjustments on excise tax rates. However, the affordability change component and tax structure component partially address these concerns by incorporating the change in cigarette affordability over time and the automatic adjustments to specific tax.

Another notable aspect of the tax share measures is that countries with high non-excise taxes such as sales tax or VAT can reach the 75-percent threshold more readily, making this measure less useful for evaluating the effects on cigarette prices. Brazil is a good example of this dynamic because in 2018 non-excise taxes comprised nearly 43 percent of retail price, whereas excise taxes comprised 40 percent of total taxes on tobacco products. Consequently, Brazil scores well on the total tax measure but much less well on the excise tax measure. In fact, for a country like Brazil with such high non-excise taxes, it is not mathematically possible to reach the 70-percent excise tax benchmark.

Tax share scores in 2020

Figure 1 presents the cigarette tax share scores for 2020. Of the 181 countries with available data, only four received the highest score of five: Andorra (78.41 percent total tax share, 74.10 percent excise tax share), Egypt (78.53 percent, 73.53 percent), Estonia (87.64 percent, 70.98 percent), and the occupied Palestinian Territory (92.75 percent, 78.96 percent). An additional 36 countries received the highest score for their total tax share but not for their excise tax share. In contrast only Palau received the highest excise tax share score, for its 71.43 percent excise tax share, but a lower total tax share score. At the other end of the spectrum, 39 countries scored zero for both.

Figure 1 Tax share scores, 2020

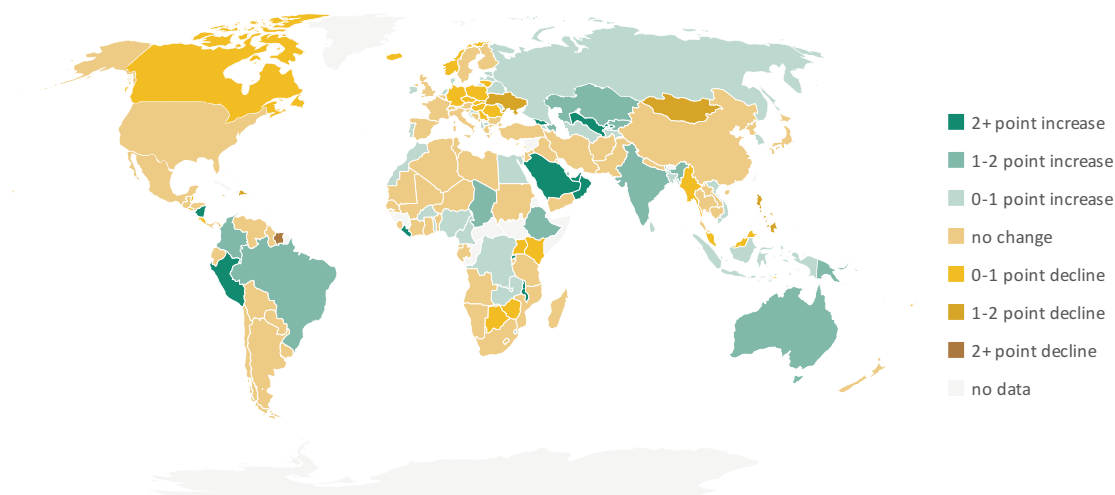


Note: Countries in gray lack available data on this measure.

Change over time

As demonstrated in Figure 2 below, over the past six years there has been little improvement in tax share scores over time, with the global average score rising marginally from 1.91 in 2014 to 2.16 in 2020. Of the 175 countries with data for both 2014 and 2020, many—77—saw no change in their tax share score. Tax share scores increased in 60 countries between 2014 and 2020, led by 3.5-point increases in Nicaragua, which implemented significant cigarette excise tax increases in 2017 and in 2019, and three Gulf Cooperation Council countries (Bahrain, Saudi Arabia, and the United Arab Emirates), which introduced new excise taxes on cigarettes. At the same time, tax share scores fell from 2014 to 2020 in 38 countries. Over the past six years 13 countries have experienced more than a two-point increase, while one country (Suriname) has seen more than a two-point decline.

Figure 2 Changes in countries' tax share scores, 2014–2020

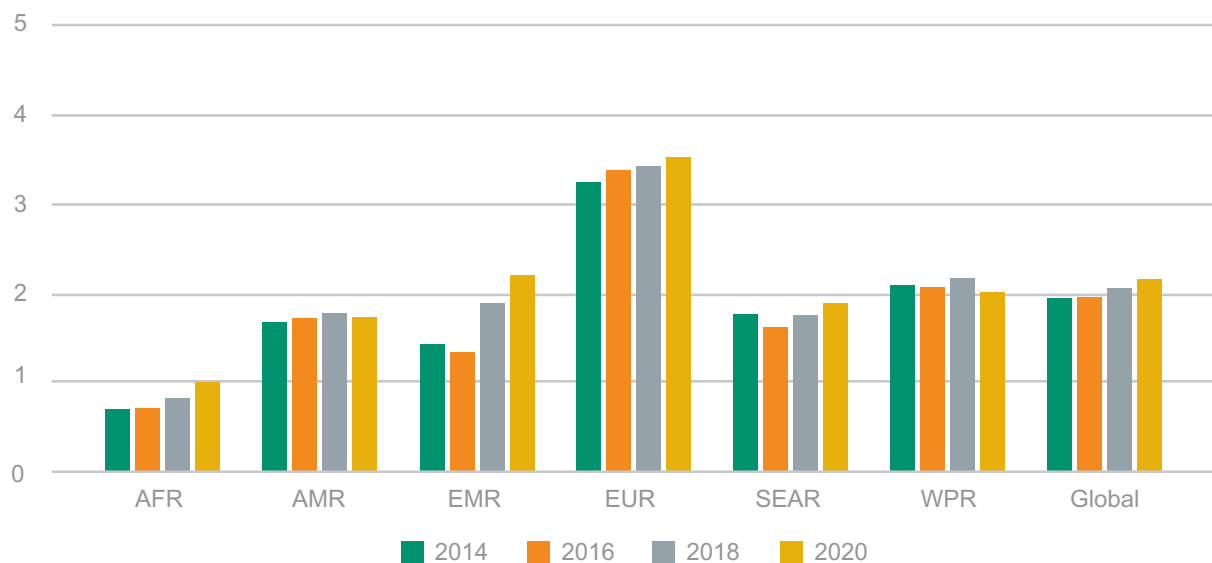


Note: Countries in gray lack available data on this measure.

As demonstrated in Figure 3, tax share scores are highest in the European region, largely due to the European Union Tobacco Tax Directive that requires member states to implement relatively high excise taxes on cigarettes. In contrast, tax shares and scores are lowest in the African region. From 2014 to 2020, average tax share scores increased in all regions, except for the Western Pacific regions where the average dropped from 2.08 to 2.00. The largest average score increase is observed in the Eastern Mediterranean region where the score increased from 1.43 to 2.19.

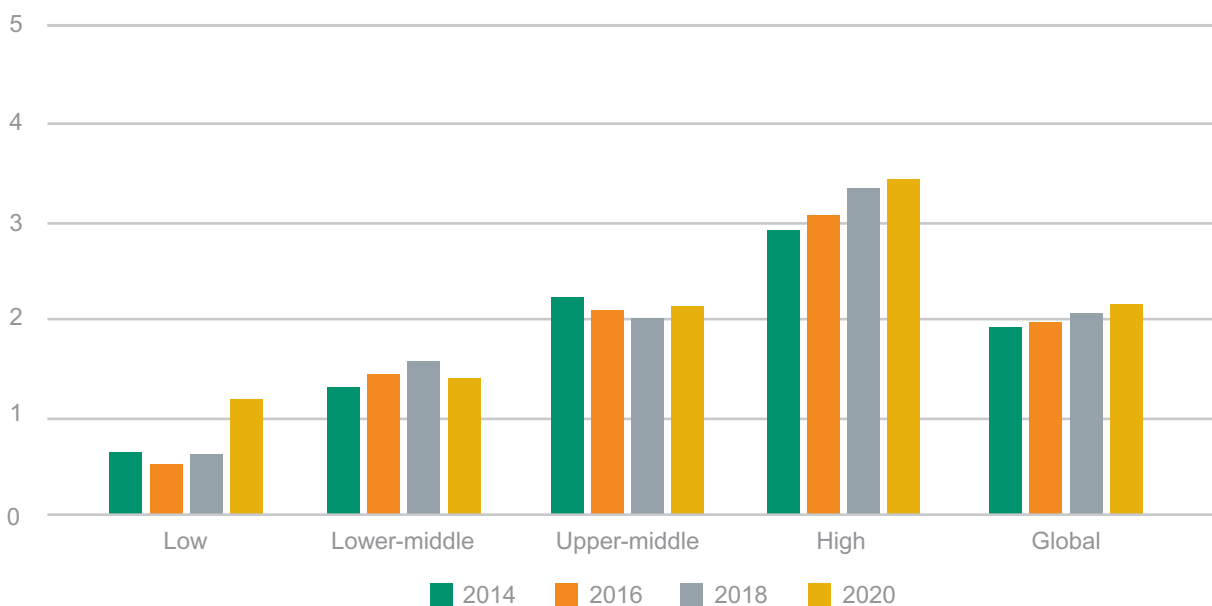
As with cigarette price scores, tax share scores tend to rise with country income, with the average tax share score nearly three times higher in high-income countries than in low-income countries. This trend persists in 2020, but upper-middle-income country average total tax share scores decreased marginally from 2.19 (in 2014) to 2.12 (in 2020). (Figure 4).

Figure 3 Average tax share scores, globally and by WHO region, 2014–2020



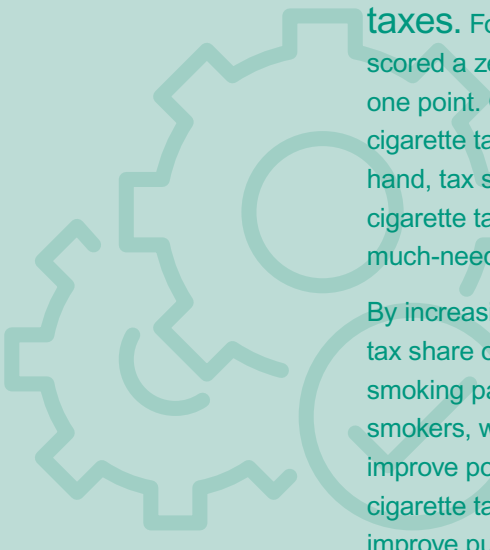
Note: Affordability scores from 2018 were revised using the updated affordability measures in the most recent *RGTE* data (2021). A full list can be found in Appendix 4 of the Scorecard, second edition.

Figure 4 Average tax share scores, globally and by World Bank income group, 2014–2020



Note: Affordability scores from 2018 were revised using the updated affordability measures in the most recent *RGTE* data (2021). A full list can be found in Appendix 4 of the Scorecard, second edition.

Policy recommendations



The Scorecard shows the untapped potential of cigarette taxes. For example, among the low performers in 2020, there are 39 countries that scored a zero on the combined measure and 28 more that failed to score more than one point. Optimistically, this suggests that there are tremendous opportunities to use cigarette taxation as a tool for improving public health across the globe. On the other hand, tax share is a good indicator of how poorly governments are performing on cigarette tax policies. The poor performance also reflects a missed opportunity for much-needed tax revenue collection for governments to help fund pandemic recovery.

By increasing cigarette taxes, governments are likely to increase both the price and the tax share of price, which would reduce cigarette smoking. In addition to reducing smoking participation, increased prices also lower the smoking intensity among smokers, which can further reduce the burden of smoking-attributable diseases and improve population health. Moreover, as countries impose higher and better-designed cigarette taxes, governments could generate more revenue which could be spent to improve public health generally and tobacco control specifically.

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