



**Economics
For Health**

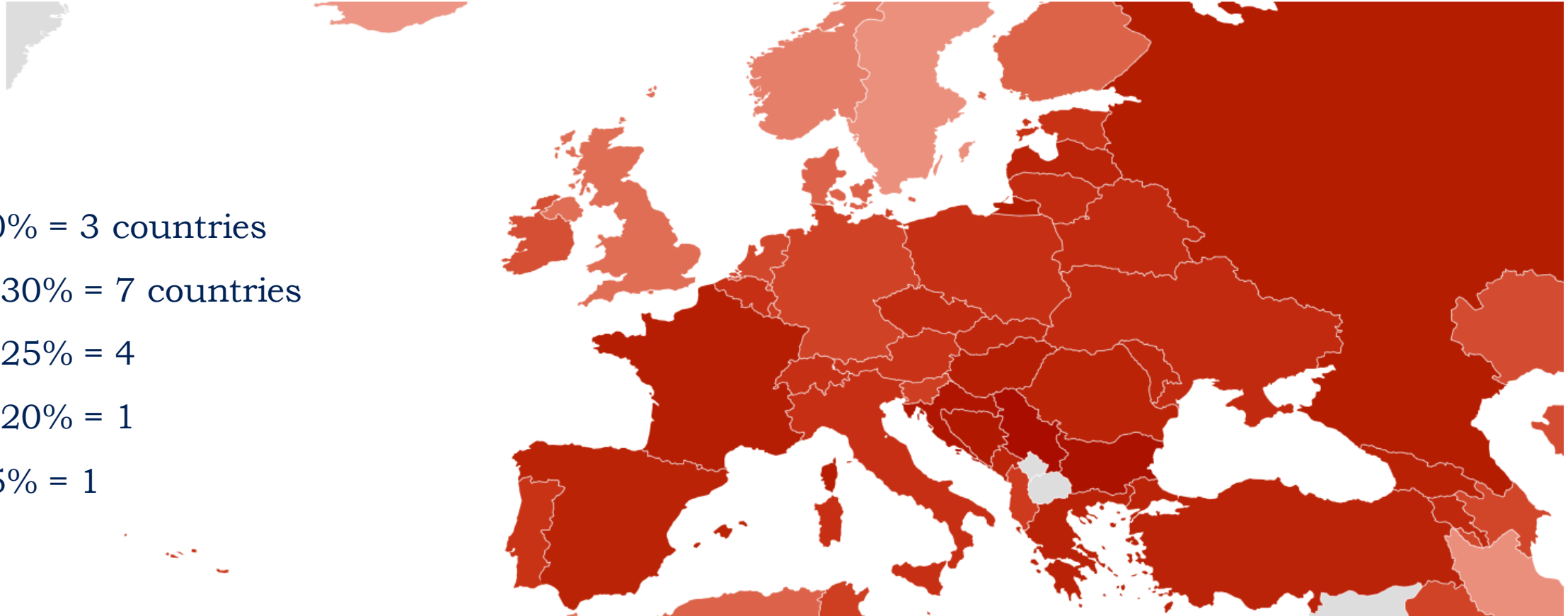
Healthier People.
Stronger Economies.

Economics for Health Cigarette Tax Scorecard: Reflections on Selected European Countries

Sehr Malik, Ana Mugosa, Tatiana Villacres and Jeffrey Drope
Johns Hopkins Bloomberg School of Public Health
September 23, 2026

Why are we here?

Smoking prevalence (15+) in this region...

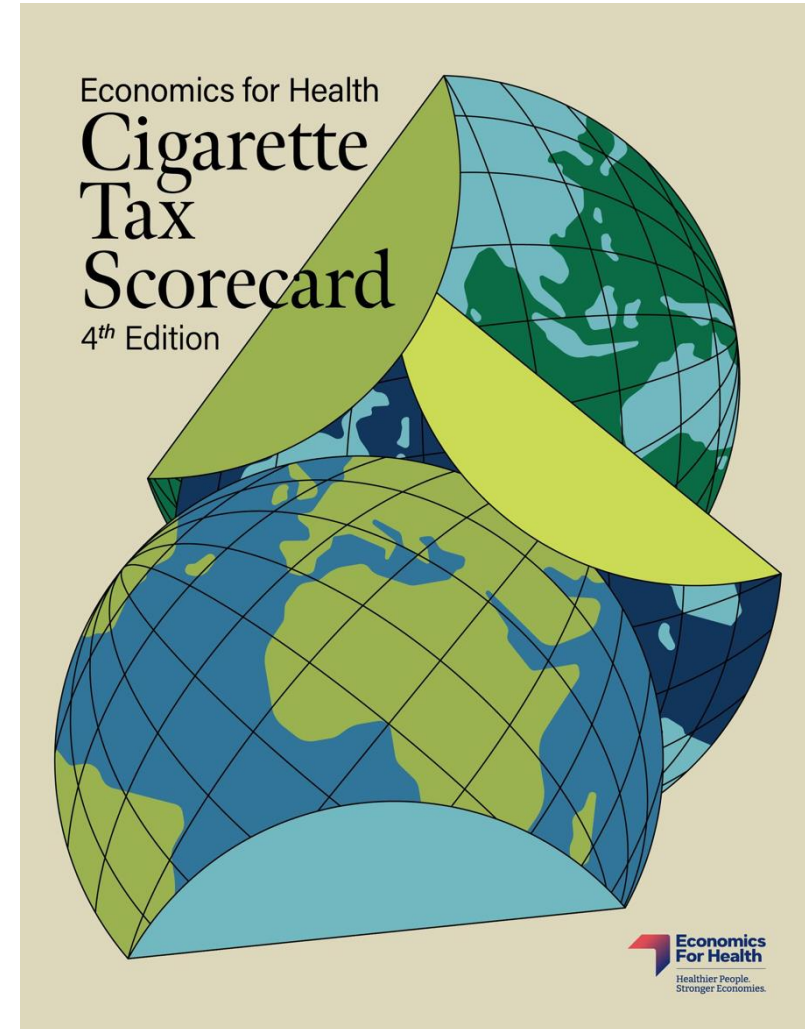


>30% = 3 countries
25-30% = 7 countries
20-25% = 4
15-20% = 1
<15% = 1

Four Components

The Scorecard focuses on four key dimensions of cigarette tax systems:

- Cigarette prices
- Changes in cigarette affordability over time
- Share of taxes in retail cigarette prices
- Cigarette tax structure



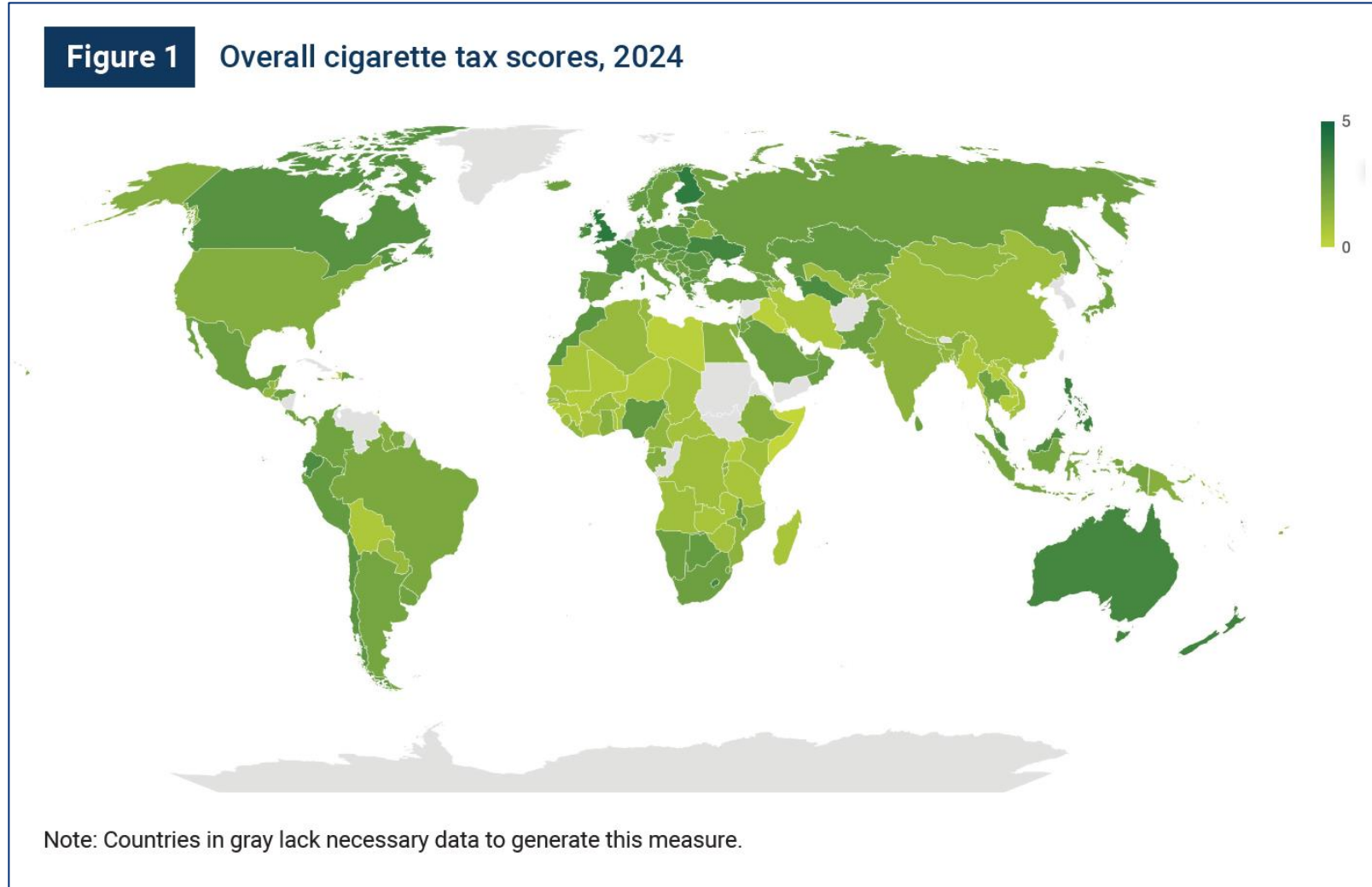
Cigarette Tax Scorecard

- Uses data from WHO's biennial reports on the global tobacco epidemic.
- Scores for 2024, 2022, 2020, 2018, 2016, and 2014.
- Extensive peer review.
- Based on recommendations and guidance from multiple sources.



Overall Score

Overall Cigarette Tax Scores, 2024

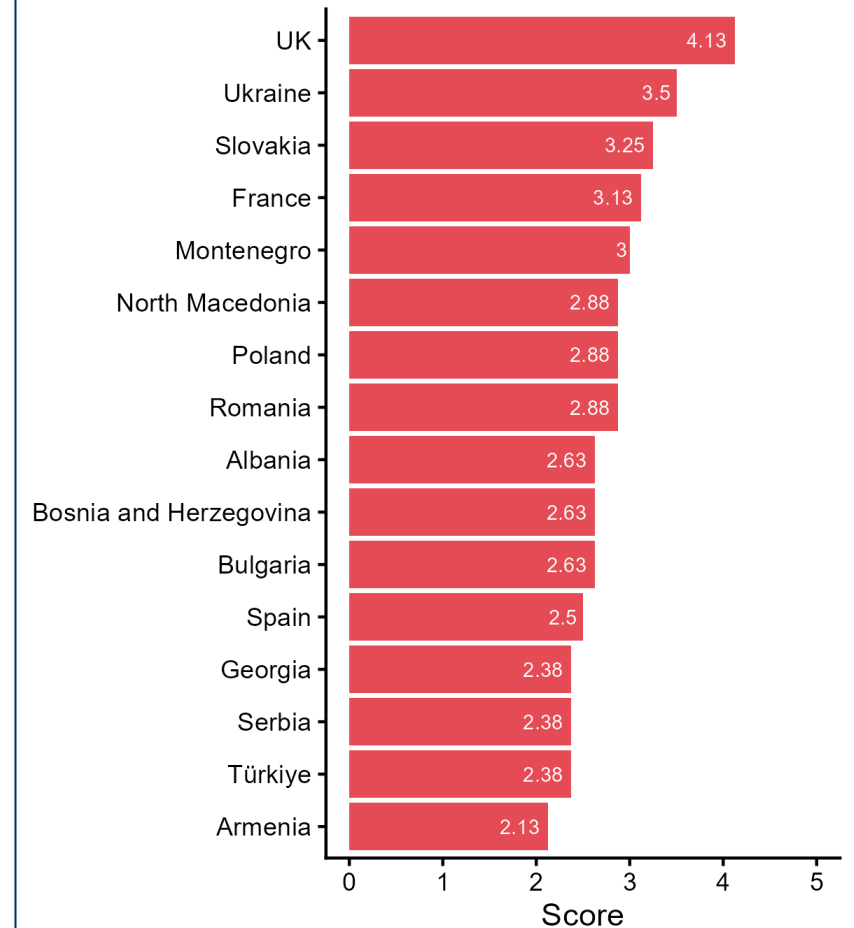


Overall average scores by country, 2024

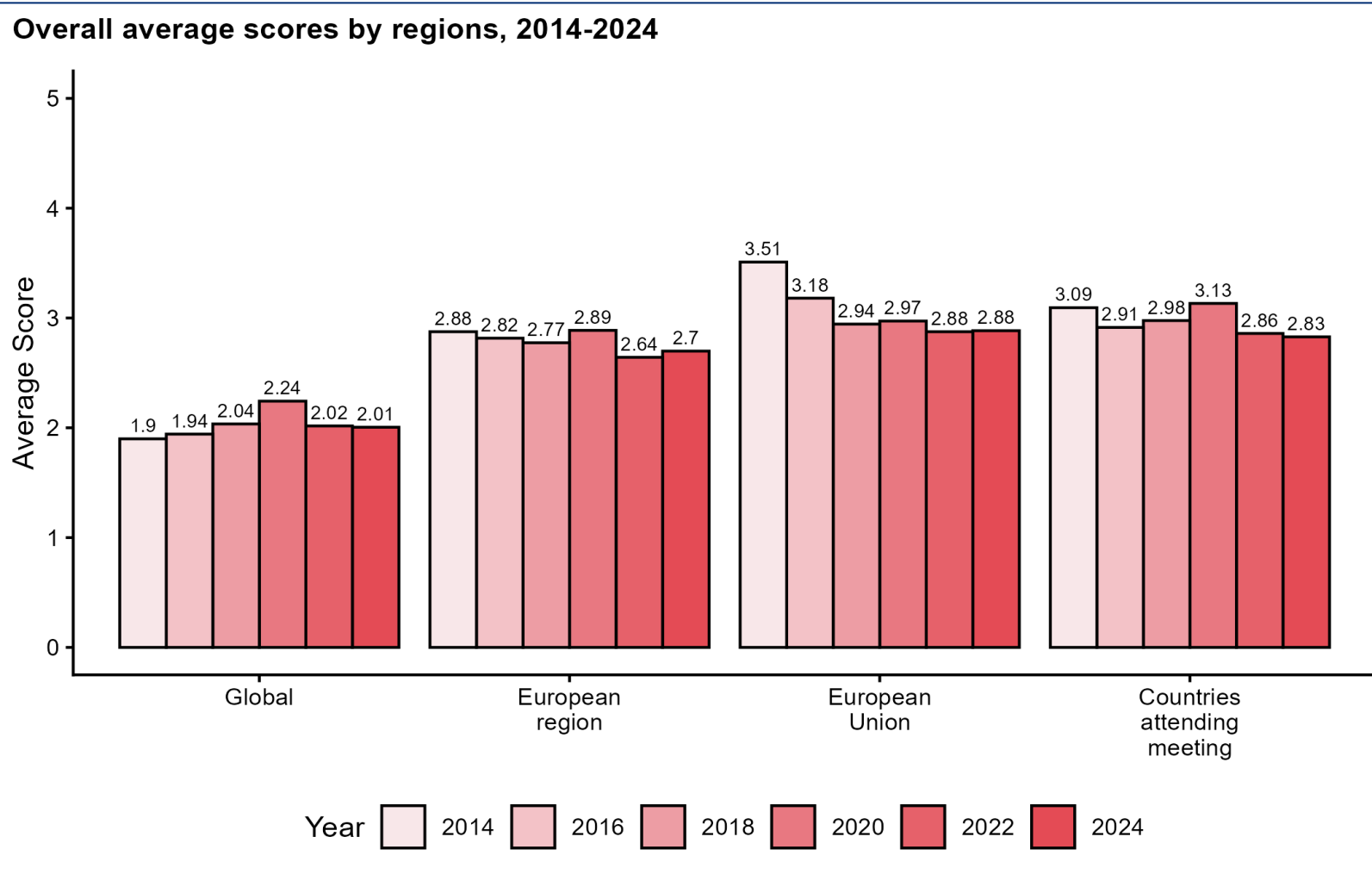
Overall Scores, 2024



Note: Countries in gray lack necessary data to generate the measure



Overall scores over time, 2014-2024



- Global average score peaked in 2020 and has fallen somewhat since.
- In 2024, it is higher than the first year for which there are sufficient data.
- The EU average has dropped steadily since 2014.
- The countries represented here had their lowest average score in 2024.



Score Component: Price

Why is Cigarette Price Important?

- Cigarette price is a key variable affecting smoking behavior.
- Higher prices generally reduce cigarette consumption.
- However, cigarettes are relatively price inelastic (an increase in price will result in a less-than-proportional decline in consumption)
→ Large price increases are necessary to affect consumption.
 - Inelastic means that consumption goes down, but tax revenues generally go up.
- Even when tax structure and tax share of price are ideal, tax systems will not be optimally effective in discouraging consumption if prices remain low.

How Does Cigarette Price Affect Consumers?

- ~1 / 2 of price-related declines in consumptions are attributable to reduced smoking participation (quitting or not starting); the remaining decline is due to reduced smoking intensity among those who still smoke.
- Youth are 2 to 3 times more responsive to tobacco price increases than the general population, explained largely by limited income, lower addiction levels, and peer effects.
- Evidence from both higher- and lower-income countries shows that lower socioeconomic groups are more responsive to price changes than higher socioeconomic groups.
- Therefore, people in lower socioeconomic groups tend to benefit more from price-related reductions in smoking, thereby improving health and economic equity.
 - At a population level, tobacco taxation is very progressive.

Cigarette Price Scoring Rubric

5: Price $\geq$ 10.0 Intl\$ PPP*

4: $8.0 \leq \text{price} < 10.0$

3: $6.0 \leq \text{price} < 8.0$

2: $4.0 \leq \text{price} < 6.0$

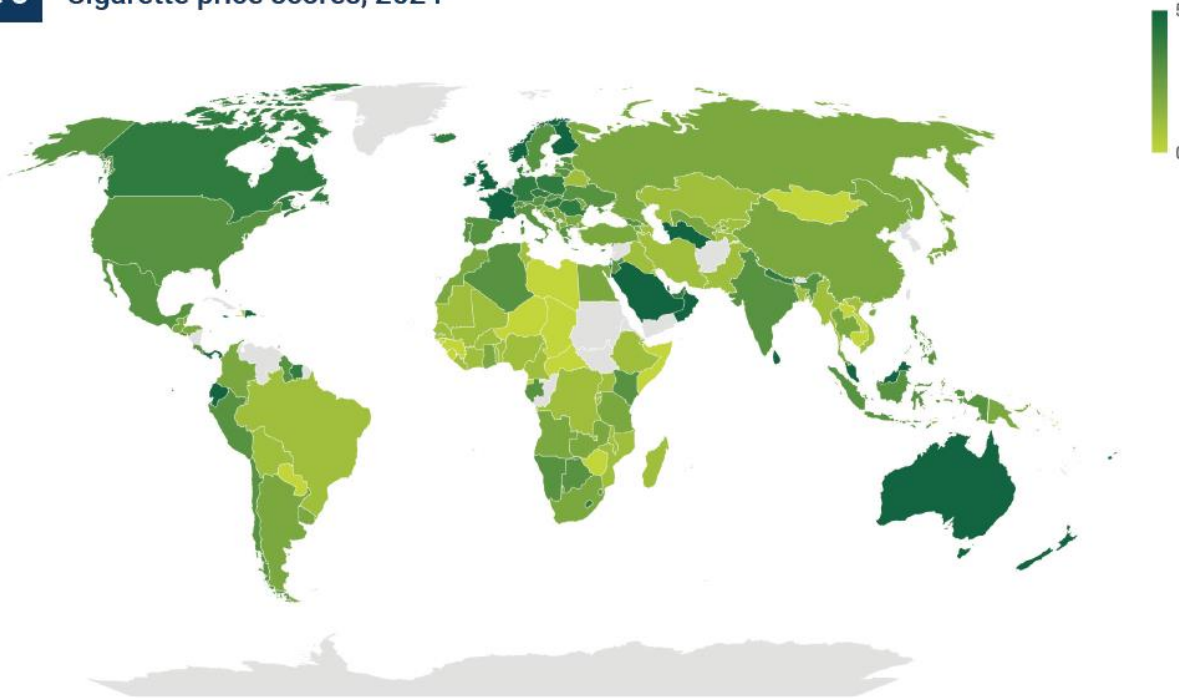
1: $2.0 \leq \text{price} < 4.0$

0: Price < 2.0 Intl\$ PPP

* Note: prices are in 2018 Intl\$ PPP so we can compare across editions of the Scorecard.

Cigarette Price Scores in 2024

Figure 3 Cigarette price scores, 2024

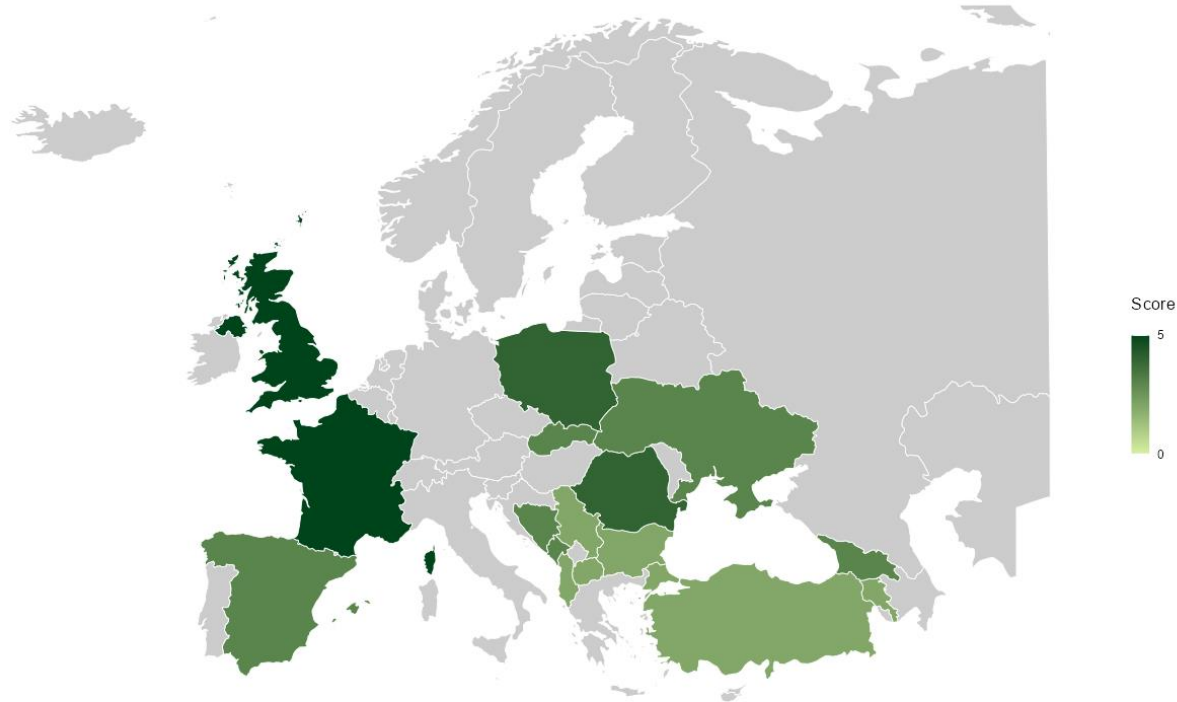


Note: Countries in gray lack available data on this measure.

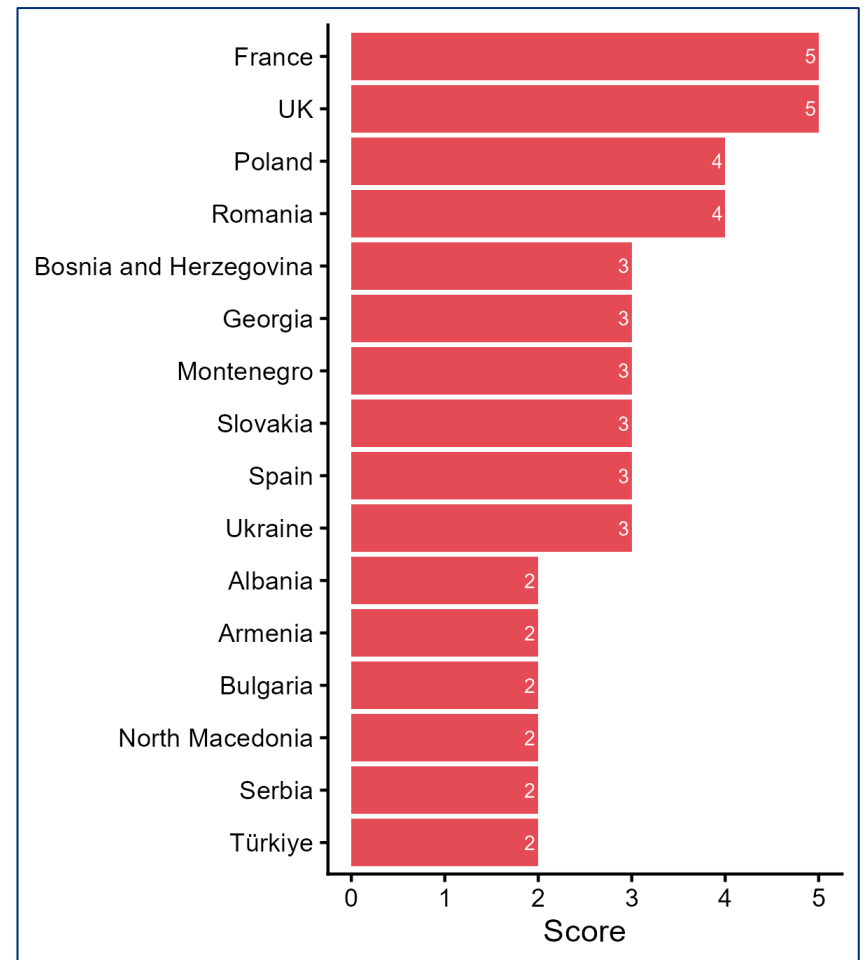
- Among 172 countries with available data, just 24 countries received the highest score of five, up from 21 countries in 2022.
- Sixteen countries received a score of zero in this component in 2024.

Price scores by country, 2024

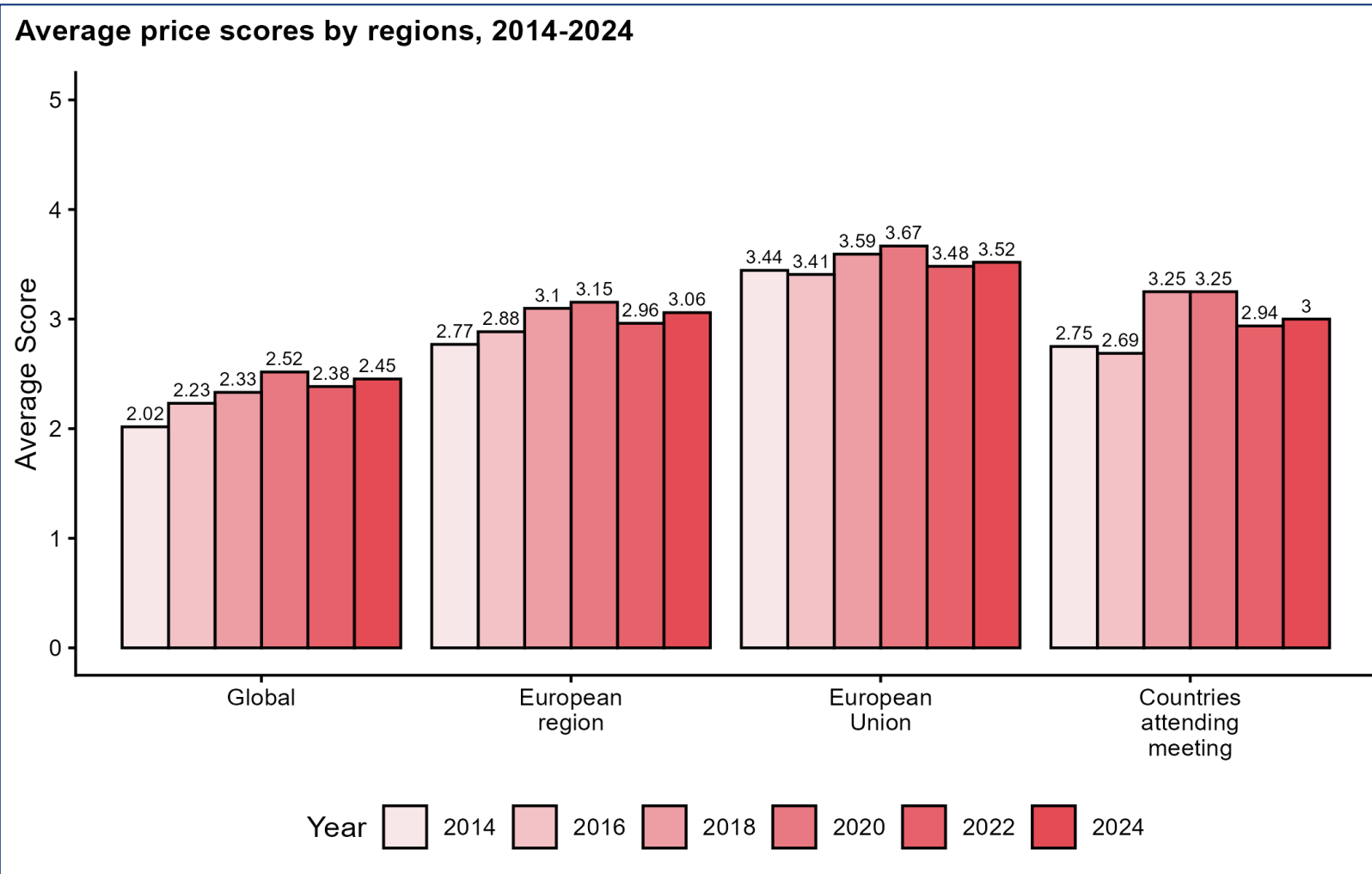
Price Scores, 2024



Note: Countries in gray lack necessary data to generate the measure



Average price scores over time, 2014-2024



- Globally and in WHO-EURO, there has mostly been a trend upward for average price.
- The EU has been mostly steady.
- The prices in countries represented here are slightly more volatile on average (>0.5 pt range).



Score Component: Affordability

Why is Change in Affordability Important?

- Affordability change is a key variable affecting smoking behavior.
- Cigarette consumption typically increases when prices decrease, while increases in income often result in greater consumption. Cigarette affordability addresses both price and income by reflecting an individual's ability to purchase cigarettes.
- In recent decades, many LMICs have seen rapid growth in incomes and inflation, and these increases in inflation and purchasing power can erode the impacts of tax and price increases on consumption.

Change in Affordability Scoring Rubric

5: 7.5% average annual change or higher

4: $5.0\% \leq$ average annual change $< 7.5\%$

3: $2.5\% \leq$ average annual change $< 5.0\%$

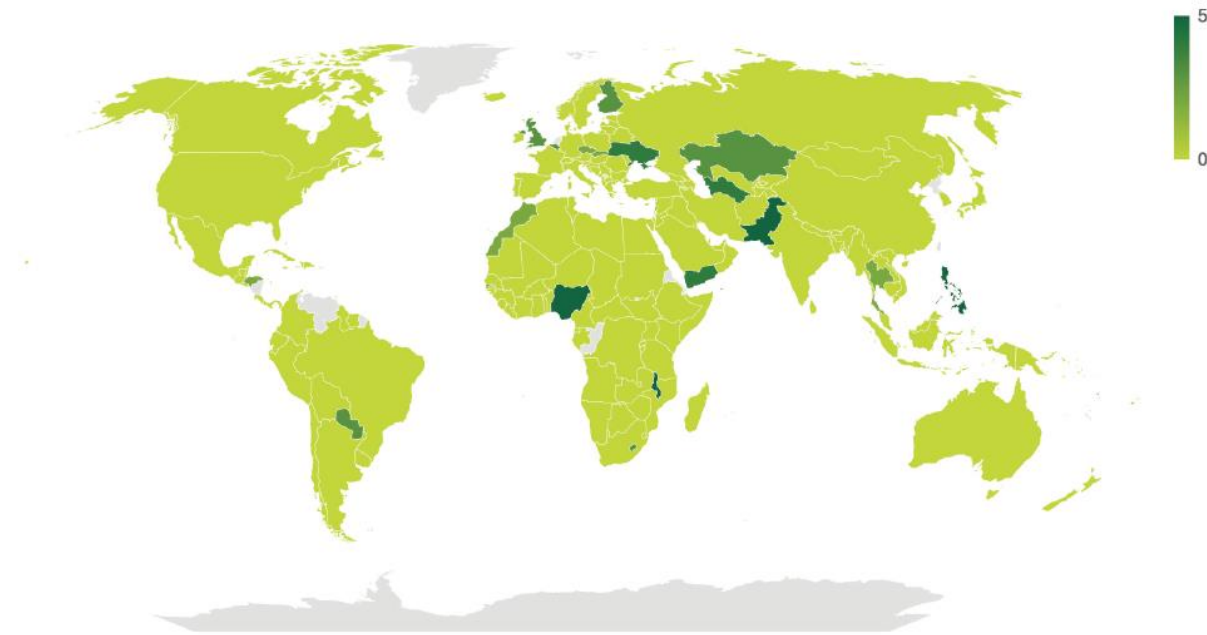
2: Average annual change $< 2.5\%$

1: Reduced affordability, but no excise tax increase

0: Increased affordability or no statistically significant change

Affordability Change Scores in 2024

Figure 5 Affordability change scores, 2024

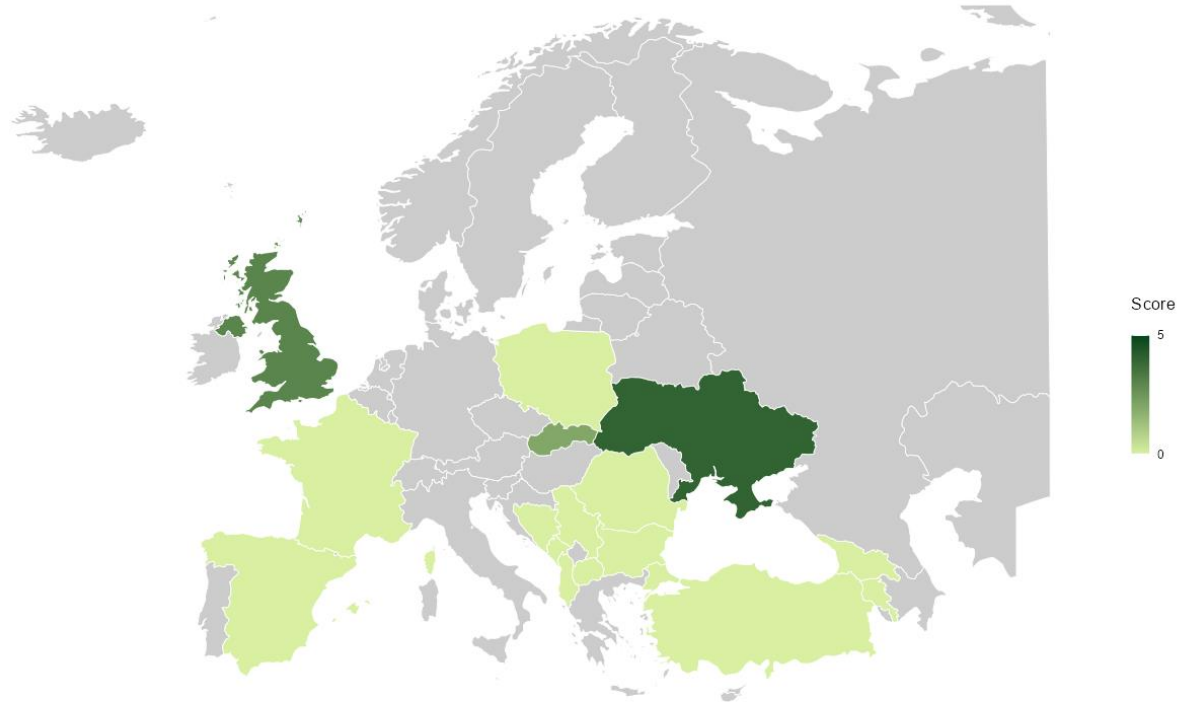


Note: Countries in gray lack available data on this measure.

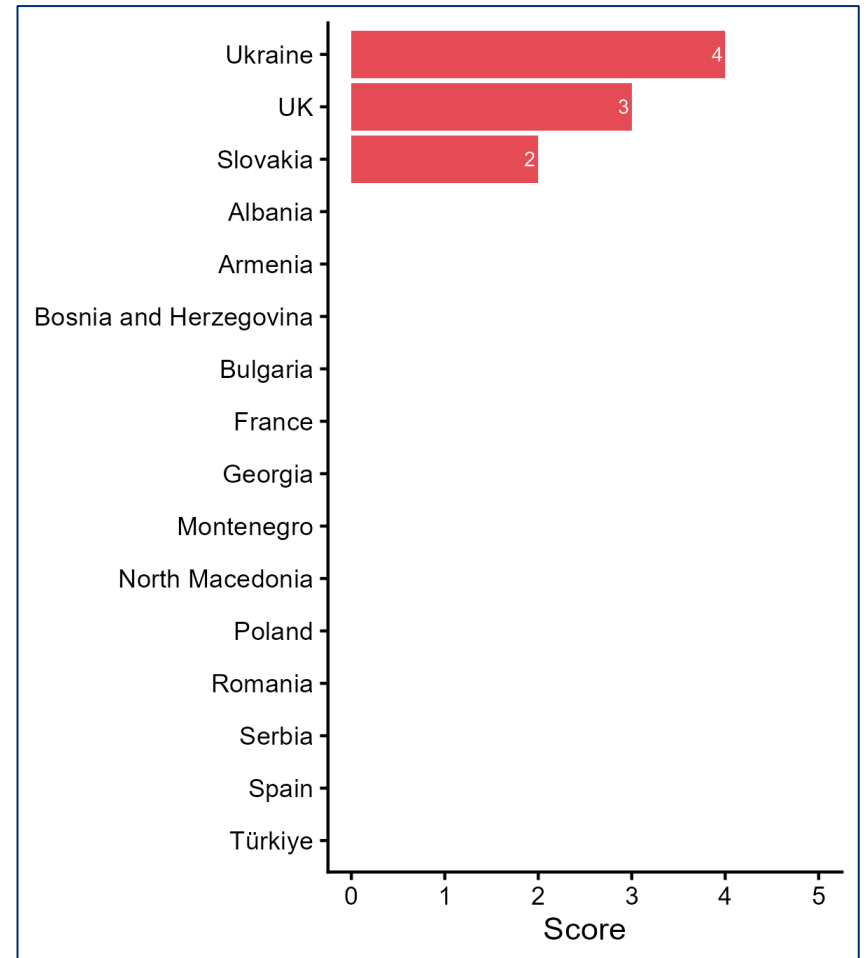
- Among 186 countries with available data, only five countries received the highest score of five in 2024, down from 11 in 2022.
- A large majority of countries—164 of the 186—received a score of zero (up from 161 countries in 2022).

Change in affordability scores by country, 2024

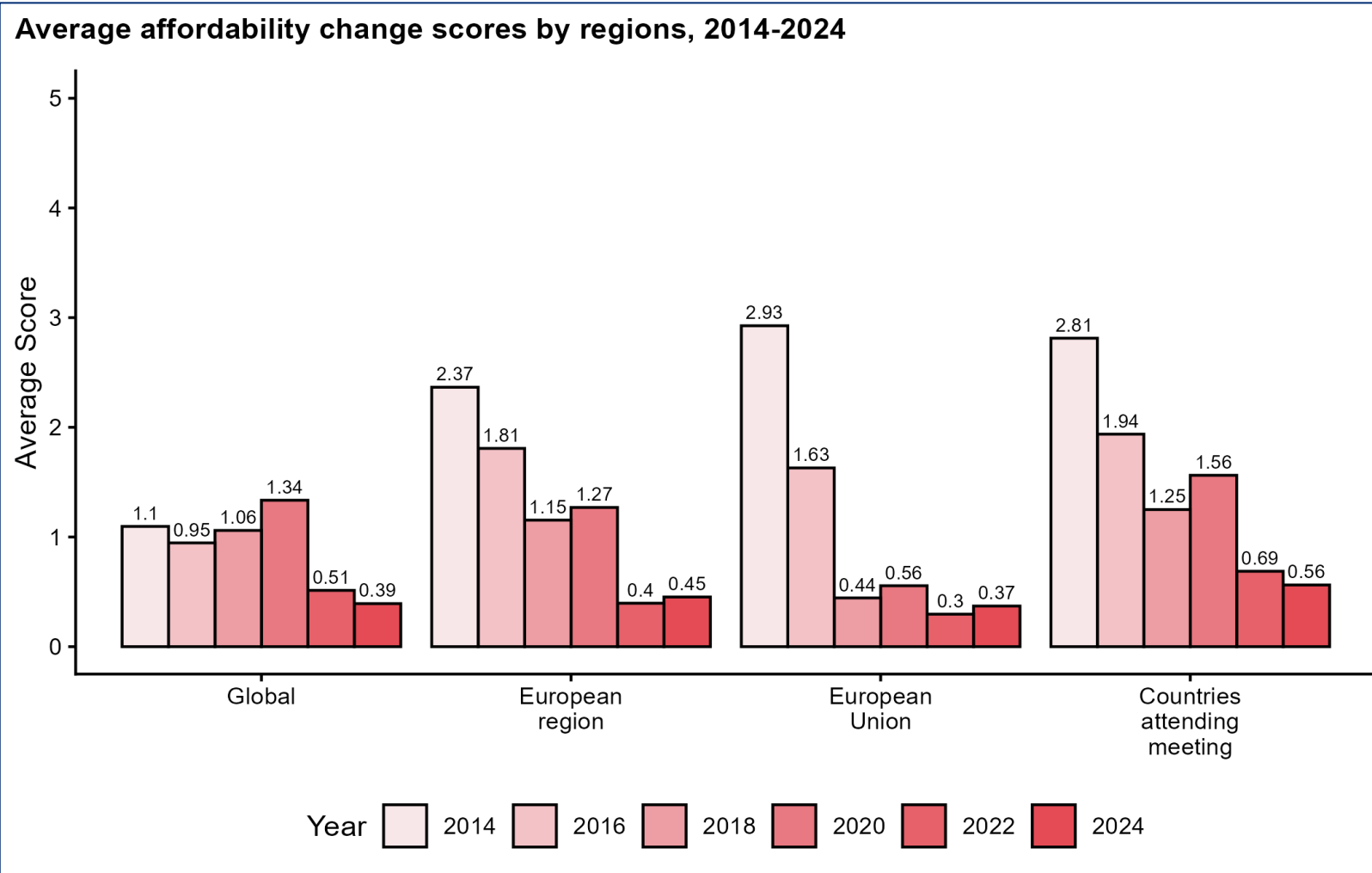
Affordability Change Scores, 2024



Note: Countries in gray lack necessary data to generate the measure



Average change in affordability scores over time, 2014-2024



- Change in affordability is undoubtedly the largest challenge.
- Cigarettes are not getting less affordable mostly – only 3 countries in this group over the last 6 years.
- It's a global trend but the trend has been more dramatic in the WHO-EURO and EU as well as the countries represented here.



Score Component: Tax Share

Tax Share Benchmarks

- There are two common and related benchmarks of tobacco tax performance that many practitioners and proponents of tobacco taxation use:
 1. The WHO currently recommends that the sum of all taxes is greater than 75% of the average retail price of a tobacco product (for example, cigarettes).
 2. The second benchmark, whether excise taxes account for at least 70% of tobacco product retail prices, is derived from the 2010 WHO Technical Manual on Tobacco Tax Administration.
 - Excise taxes are particularly useful because increases change the price of cigarettes relative to other goods.

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
- When taxes are increased to the recommended share of price, prices typically increase significantly, motivating many users to quit and deterring large numbers of youth from starting to use tobacco

Tax Share Scoring Rubric

The Tax Share score averages the Total Tax Share and Excise Tax Share sub-scores.

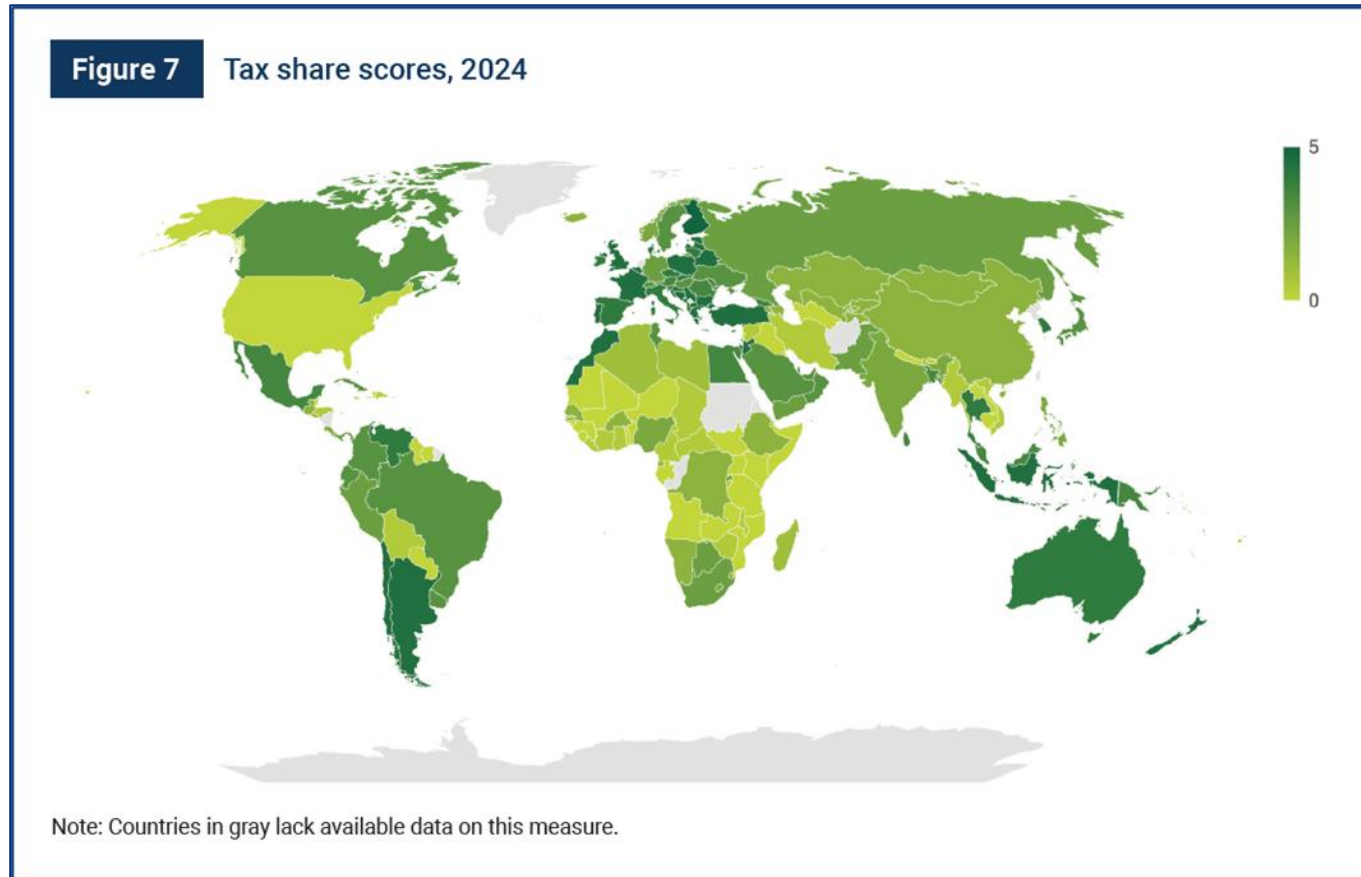
Scoring – Total Tax Share:

- 5: 75% total tax share or higher
- 4: $65\% \leq \text{share} < 75\%$
- 3: $55\% \leq \text{share} < 65\%$
- 2: $45\% \leq \text{share} < 55\%$
- 1: $35\% \leq \text{share} < 45\%$
- 0: Total tax share $< 35\%$

Scoring – Excise Tax Share:

- 5: 70% excise tax share or higher
- 4: $60\% \leq \text{share} < 70\%$
- 3: $50\% \leq \text{share} < 60\%$
- 2: $40\% \leq \text{share} < 50\%$
- 1: $30\% \leq \text{share} < 40\%$
- 0: Excise tax share $< 30\%$

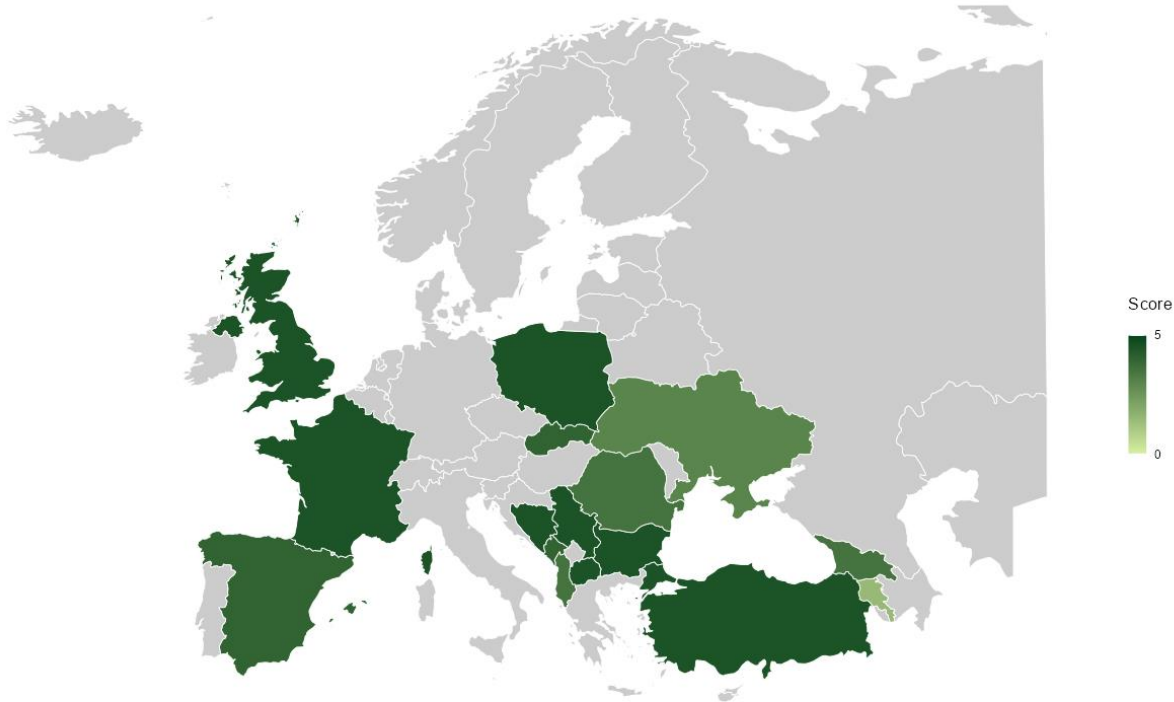
Tax Share Scores in 2024



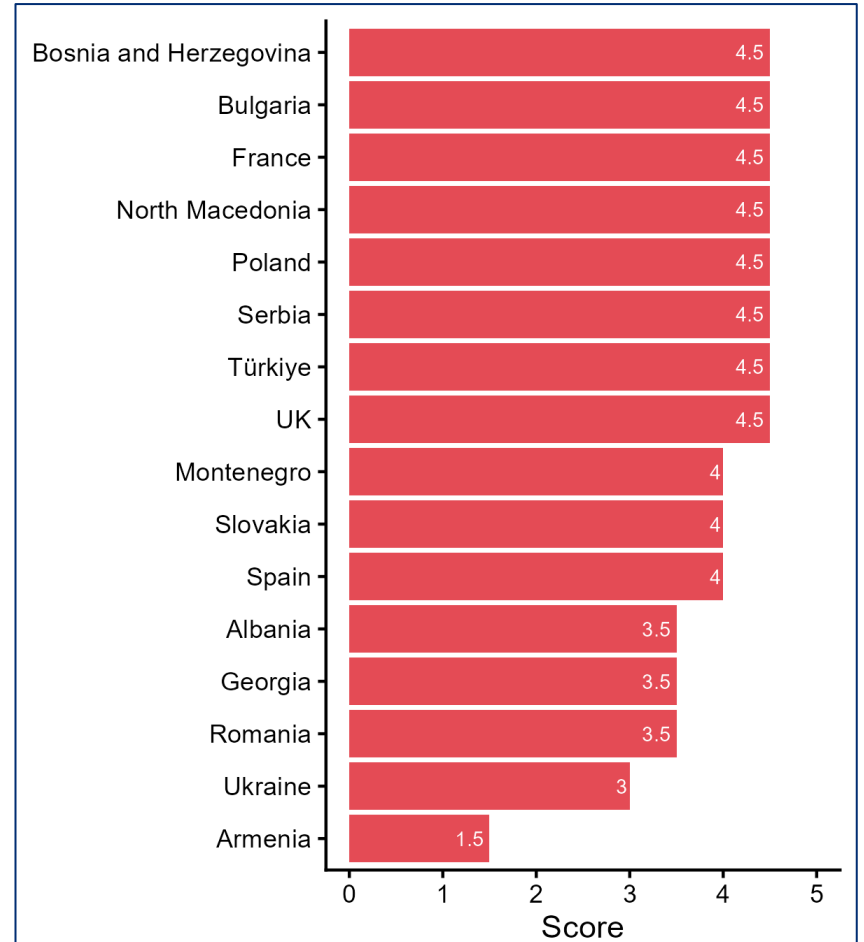
- Only one country, out of 185, received the highest score of five.
- An additional 38 countries received the highest score for their total tax share but not for their excise tax share.
- 39 countries scored zero for both total tax share and excise tax share.

Tax share scores by country, 2024

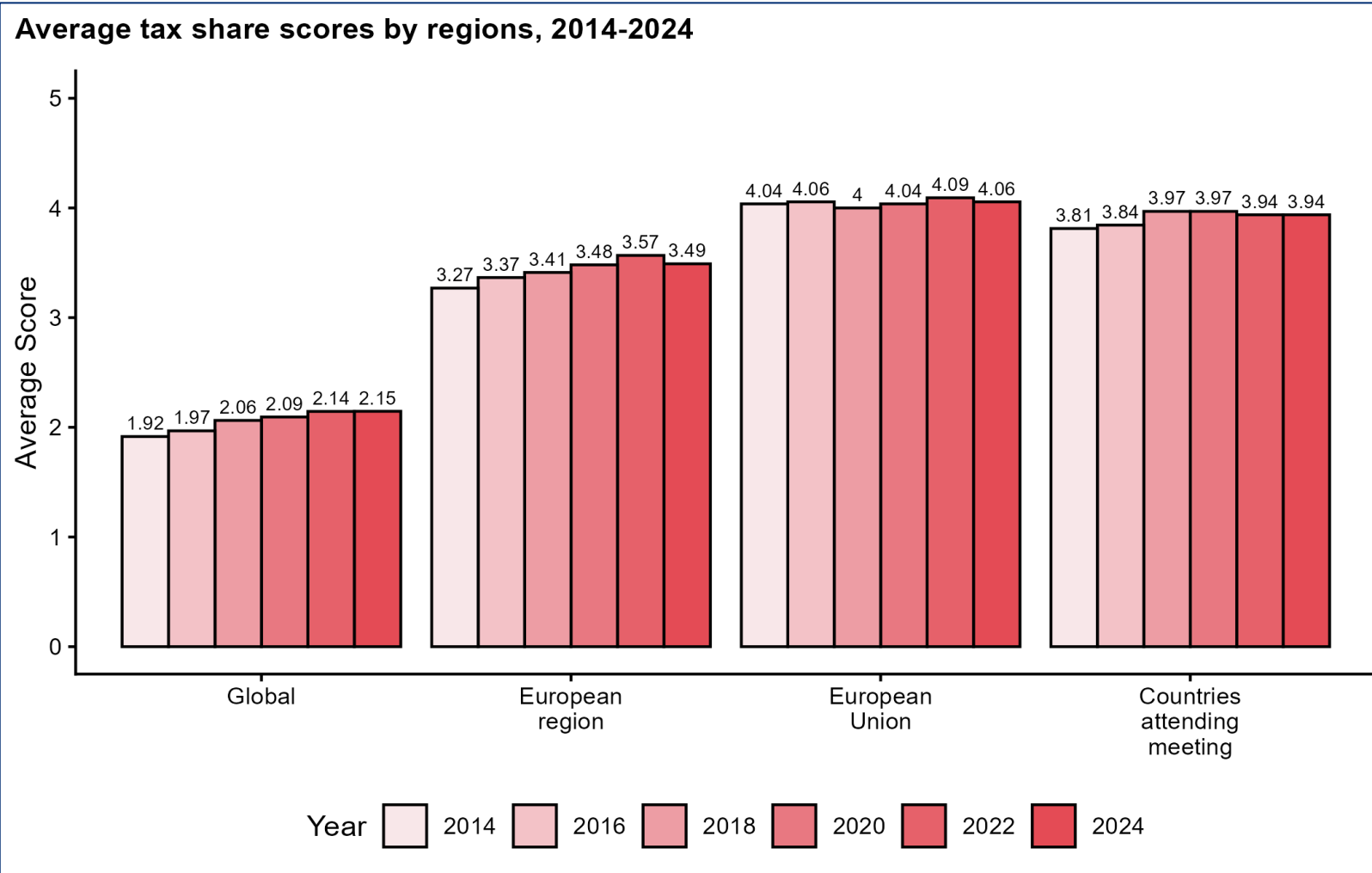
Tax Share Scores, 2024



Note: Countries in gray lack necessary data to generate the measure



Average tax share scores over time, 2014-2024



- Countries in Europe generally score well on tax share of price.
- But tax shares can be misleading because they can be high even when prices are not (or *because* prices are low).
- They also don't reflect affordability or change in it.



Score Component: Tax Structure

Why Tax Structure is Important

- 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 20-pack)
 - Ad valorem excise taxes are assessed as a percentage of value (for example manufacturer price or retail price).
 - Hybrid: both ad valorem and specific taxes are levied.
- Some jurisdictions set different tax levels depending on the product features, such as the length of the cigarette or the pack's price category. These tax structures are usually called tiered tax systems.

Why is Tax Structure Important?

- Tax structures greatly affect cigarette price and play an important role in the effectiveness of taxation in reaching governments' public health and revenue goals.
 - Tax structure affects price variability/dispersion.
 - Greater variability in prices creates more opportunities for smokers to “trade down” to cheaper brands in response to tax and price increases, rather than quitting or cutting back on consumption.
 - Specific excise taxes are shown to be more effective in raising consumer prices compared to ad valorem taxes -- resulting in greater reductions in cigarette consumption.
- A tax structure's complexity and ease of administration impact its effectiveness and resulting government revenue; specific taxes are easier to administer.

How Does Tax Structure Affect Consumption?

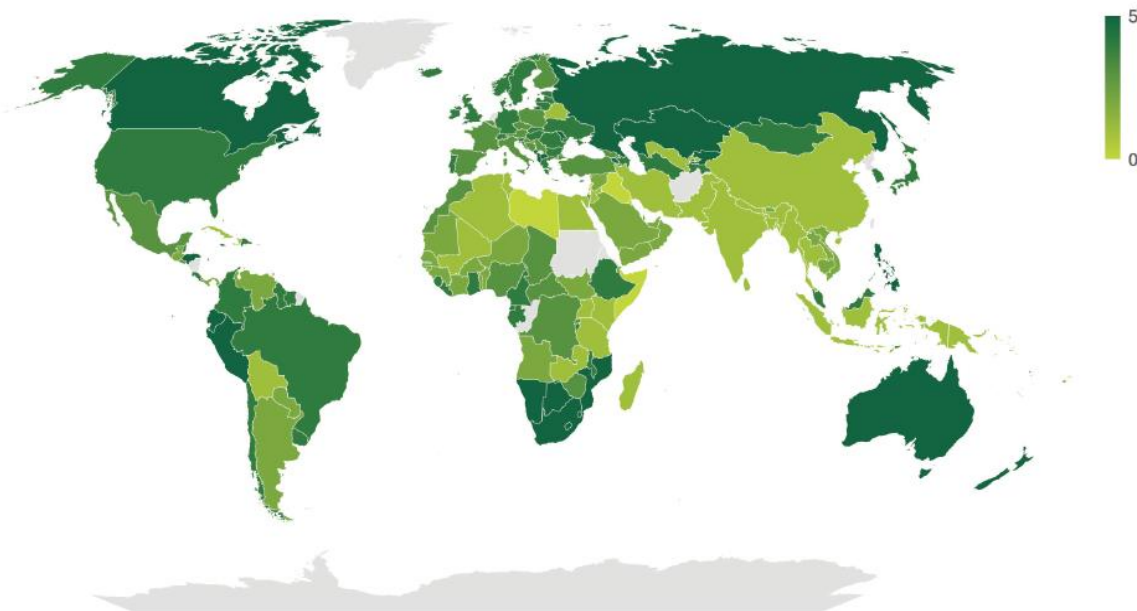
- Specific excise taxes generally result in greater reductions in cigarette consumption.
- Complicated tax structures, such as tiered tax structures and systems with a greater share of ad valorem taxes, are associated with higher cigarette consumption compared to tax structures that rely more or entirely on uniform specific tax structures.

Tax Structure Scoring Rubric

- 5: A uniform specific tax with an automatic inflation or other adjustment; or a uniform 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 specific tax.
- 4: A uniform specific tax or uniform mixed system with a greater share of specific tax but without other features listed above.
- 3: A uniform mixed system with a greater share of ad valorem tax.
- 2: A uniform ad valorem tax.
- 1: A tiered specific or ad valorem excise tax.
- 0: No excise tax.

Tax Structure Scores in 2024

Figure 9 Tax structure scores, 2024

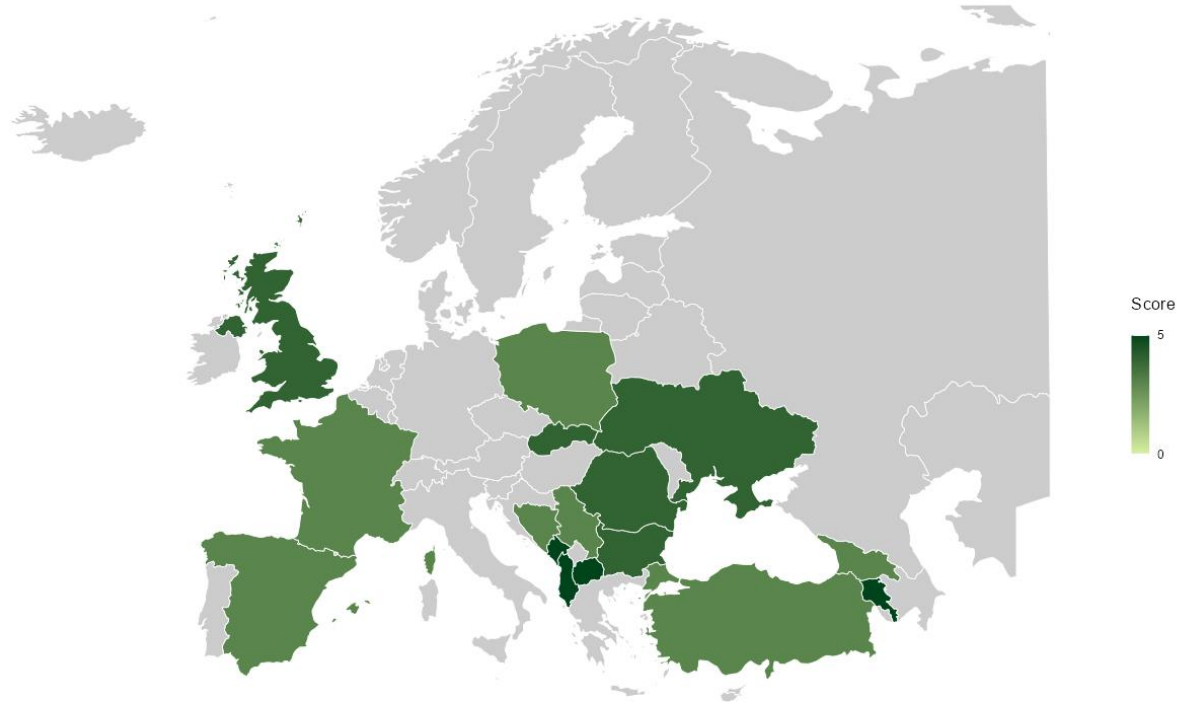


Note: Countries in gray lack available data on this measure.

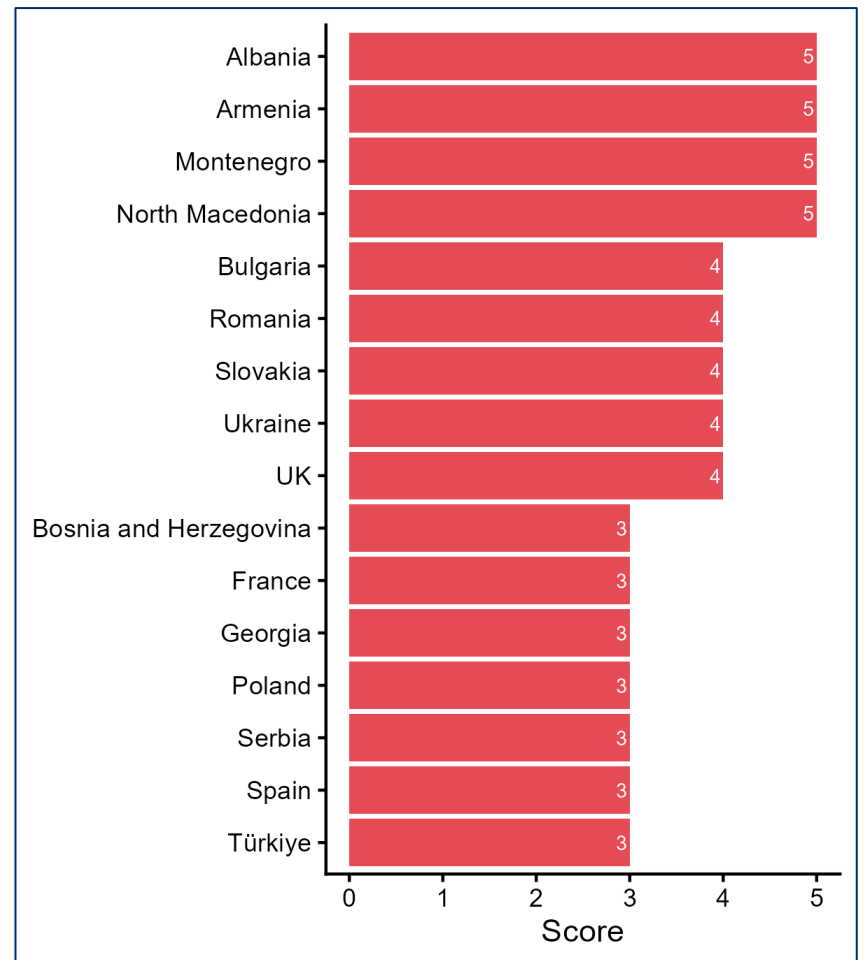
- 21 countries out of 185 countries with available data received the highest score of five.
- Most countries with a score of 5 implement a uniform specific cigarette excise tax, automatically adjusted for inflation.

Tax structure scores by country, 2024

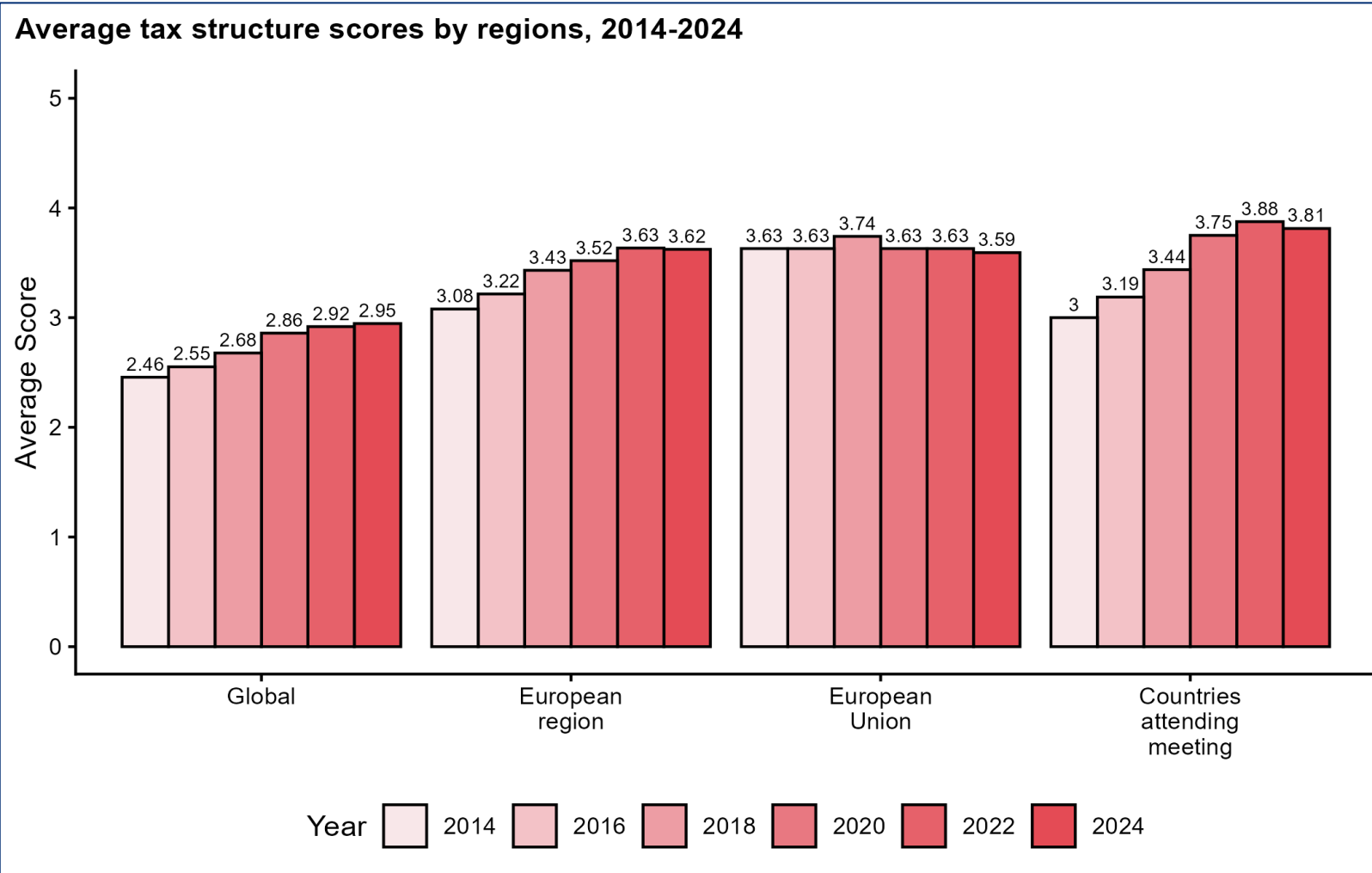
Tax Structure Scores, 2024



Note: Countries in gray lack necessary data to generate the measure



Average tax structure scores over time, 2014-2024



- European countries typically score well on tax structure – well above the global average.
- There is sometimes too much reliance on ad valorem taxes that can be prone to manipulation by tobacco companies if governments are not paying close attention.



Conclusions

Trends

Cigarette Price	Change in Affordability	Tax Share	Tax Structure
- Average cigarette prices increased across all regions, but still, they are not enough to make them less affordable. - Consumers react to absolute price and price change, so low and/or stagnant prices are problematic for improving public health outcomes (i.e., less smoking).	- Globally, only about 11% of countries are achieving the goal of less affordable cigarettes. - In Europe, we have observed the largest decrease in the component over time. - In some countries, cigarettes are becoming more affordable. - Put simply, most governments are not raising taxes enough to affect prices to make cigarettes less affordable.	- Tax share is a generally reliable indicator of cigarette excise tax performance. - Most countries are still falling well below the evidence-based international minimum benchmarks (75% total tax and 70% excise tax shares).	- The Scorecard results suggest that the pace of reform of tax structures is too slow. - The main challenges in Europe include: - Specific taxes with no adjustment mechanism. - Over-reliance on ad valorem tax vs. specific.

Recommendations

Policymakers should . . .	In order to . . .
• Implement regular tax increases that outpace inflation and real income growth to increase the price of cigarettes to make them less affordable.	• Protect vulnerable populations (including youth and those in lower socioeconomic groups) who are more sensitive to increases in cigarette price. • Prevent the expansion of cigarette markets. • Improve population health by preventing tobacco-induced disease and death (and accompanying costs including health-related expenses and lost economic productivity). • Increase government revenue that can be allocated to development priorities, including health and education.

For more information

Economics for Health

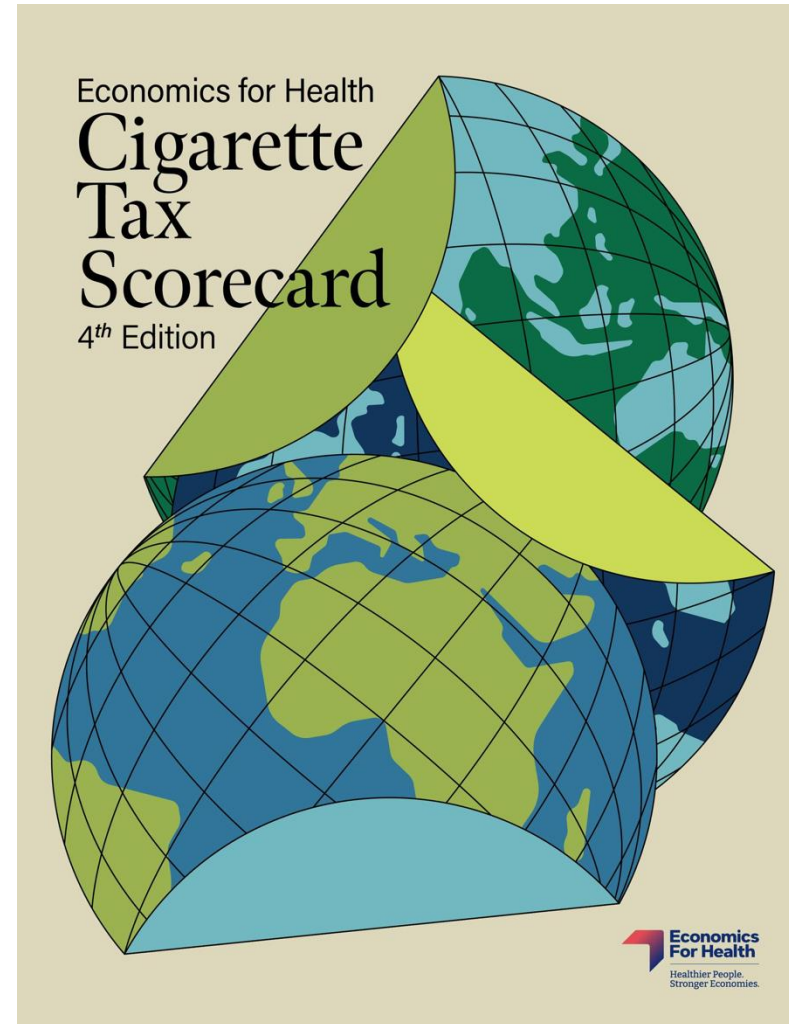
<http://www.economicsforhealth.org>

x: @EconforHealth

Facebook: EconomicsforHealthJHU

LinkedIn: EconomicsforHealth

Email: economicsforhealth@jh.edu & jdrope@jhu.edu





Thank you.