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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 **www.twitter.com/tobacconomics**.

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For any comments or questions about this Scorecard, please email us at info@tobacconomics.org. We very much look forward to hearing from you.

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Foreword

Decades of research at the World Bank has established that taxation is both an efficient and equitable policy intervention to reduce tobacco consumption. From the seminal reports, *Curbing the Epidemic* in 1999 and *Tobacco Tax Reform at the Crossroads of Health and Development* in 2017, to our more recent series of country-based analyses, we have emphasized the medium- and long-term economic benefits of using excise taxes on tobacco to decrease consumption, thereby increasing productivity and reducing medical costs.

The current challenge lies in effective implementation. The Cigarette Tax Scorecard reveals this clearly and assists policy makers by systematically evaluating cigarette tax systems globally and by offering concrete next steps for countries seeking to improve their tax policy.

Another benefit of the Scorecard is that it reminds us that time is of the essence. Though the Scorecard shows some progress has been made on tobacco taxation, it simply is not enough to face the public health and economic crises of our time. The COVID-19 pandemic has revealed the weakness of public health systems and social safety nets globally. Accelerating the progress made on cigarette taxation will not only save lives, but also provide much-needed fiscal space to face the challenges of tomorrow.

Ceren Ozer Senior Economist The World Bank

Foreword

Tobacco taxation is the most effective and cost-effective measure

to reduce tobacco use. Extensive documented evidence has proven this, and even the tobacco industry acknowledges its impact. However, despite some progress made since 2010, tobacco taxation still remains the least implemented tobacco control measure. The 8th *WHO Report on the Global Tobacco Epidemic* released in July 2021 shows that only 40 countries have reached the highest level of implementation, those that have achieved a share of total taxes to retail prices of at least 75%. But this is an increase from the 28 countries that achieved this level in 2010.

One key reason why tobacco taxation remains underutilized is the tobacco industry's SCARE tactics, which refer to misleading, false or exaggerated myths claiming that raising tobacco taxes lead to smuggling and illicit trade, court and legal challenges, is anti-poor, and has negative revenue and employment consequences. But these tactics have been debunked by evidence. They are discussed and deconstructed in the 2021 *WHO Technical Manual on Tobacco Tax Policy and Administration*. A recommended read for policy makers, the manual features best practices on tobacco taxation policy that countries can refer to as they seek to achieve their health and revenue objectives in the context of their overall development strategy.

Complementing the WHO Technical Manual is the Tobacconomics Cigarette Tax Scorecard, which sums up these best practices into a comprehensive evaluation metric for effective cigarette tax policy. This metric is applied to country-specific data published in the biennial WHO Report on the Global Tobacco Epidemic, resulting in a practical guide for governments on how to assess and improve their cigarette tax policies.

Based on my experience in spearheading tobacco taxation reform in the Philippines prior to my joining WHO, I recommend that policy makers use these two tools to help them realize that reforming tobacco taxation is a win for health, a win for revenues, and a win for the economy overall.

Moreover, as the global fight against COVID-19 continues, raising tobacco taxes can be one of the policy options that countries should consider as part of their pandemic response and recovery efforts.

Jeremias N. Paul, Jr. Unit Head, Fiscal Policies for Health World Health Organization

Executive Summary

Nearly two years into the COVID-19 pandemic, virtually every country has experienced a tragic loss of human life and diminished livelihoods. National- and local-level lockdown measures and other containment strategies have resulted in decreased incomes and working hours, especially in high-contact sectors. During this pandemic policy makers have been confronted with severe shortcomings in their social safety nets and public health systems and are beginning to turn their attention to preparedness for future challenges with a new sense of urgency. However, the modest progress reported in this edition of the *Tobacconomics Cigarette Tax Scorecard* does not reflect this urgency. Governments have made insufficient progress in addressing the world's leading cause of preventable death, even though the most effective tool—tobacco taxation—would save millions of lives and increase government revenues. The global average cigarette tax score has barely risen over the past several years from 1.93 (out of 5.00) in 2014 to 2.28 in 2020.

At the turn of the 21st century, countries came together under the auspices of the World Health Organization (WHO) facing a similar type of urgency: the globalization of the tobacco epidemic. Countries took concerted action, and the product of those efforts came in 2005 with the entry into force of the WHO Framework Convention on Tobacco Control (FCTC). Along with non-price measures to reduce tobacco use, Article 6 of the treaty obligates Parties to use tax and price measures to reduce the demand for tobacco products, especially among young people to prevent initiation (WHO, 2003). Since then, Guidelines on Article 6 have been developed and adopted by the Conference of the Parties and are based on evidence, best practices, and experiences of implementation of tax and price measures to reduce tobacco consumption (WHO, 2014).

Although the WHO FCTC currently has 182 Parties, covering 90 percent of the global population, according to the WHO only 13 percent of the global population is protected by adequate tobacco tax policies (WHO, 2021). This discrepancy highlights a significant missing link in the realization of the full potential of the world's first public health treaty to curb tobacco use. If the tobacco epidemic remains unchecked, it is estimated to claim the lives of one billion people in this century.

In 2020, as a result of the COVID-19 pandemic, the global economy contracted by 3.2 percent, though it is estimated to rebound by 5.9 and 4.9 percent in 2021 and 2022, respectively (IMF, 2021). Despite this economic shock, the big four multinational tobacco companies are now continuing on a business-as-usual trajectory with stable global profits (Chaloupka, et al., 2021). Cigarette prices globally are also increasing, except most notably in many low-income countries, where the industry seeks to expand its market.

The current context of urgency presents an opportunity for action. Instead of allowing the tobacco companies to capture additional profits while imposing substantial burdens on public health, governments should spur increases in cigarette prices by raising tobacco taxes. At the same time, the additional revenues can be used to address the challenges of the future.

What's New in this Edition of the Scorecard?

This edition of the Scorecard shows that, overall, many countries are improving their tobacco tax systems and rates, and thus scores are increasing. But they are not improving enough to significantly reduce tobacco use, and among a few groups some indicators are going in the wrong direction:



Overall scores have improved in 81 countries, stayed the same in 24 countries, and worsened in 48 countries.

> 81 û 24 ⇐⇒ 48 ∛

Only 75 of the 160 countries for which data are available score 2.50 or higher out of a maximum of five points.





Since the first edition of the Scorecard, from 2018 to 2020, all WHO regions' and World Bank country income groups' average overall scores show slight improvement; however, the component average scores reveal that:

- **Cigarette prices** in low-income countries have decreased by an average of \$Intl PPP 0.28 from 2018 to 2020 and are generally becoming more affordable. Lowering these prices makes cheap cigarettes more accessible to low-income populations, especially young people.
- **Tax share of price** is decreasing overall in the Western Pacific region (both total tax share and excise tax share) and excise tax share of price is decreasing in the region of the Americas. At the same time the tobacco industry is increasing prices, resulting in average price increases in these regions. Thus, revenues that could be gained by governments through tax increases are being captured by the tobacco industry. These regional gains in revenues allow the industry to lower prices in many low-income countries, maintaining stable global profits while expanding their market.

VS

In 2020 eight countries received a score of four or higher (twice as many as in 2018), led by Ecuador and New Zealand, both scoring 4.63, and followed by the United Kingdom and Canada, with scores of 4.38 and 4.25, respectively. The high scores in Ecuador and New Zealand reflect their very high uniform specific cigarette excise taxes, which result in very high cigarette prices, and regular and significant increases in cigarette taxes in recent years along with adjustments for inflation that have led to reductions in the affordability of cigarettes. Botswana, France, Peru, and Seychelles follow closely behind with overall scores of 4.13.

The improvements in the most recent data show that some governments are making progress in employing tobacco taxes as a public health instrument. Article 6 of the FCTC reflects the global consensus that tobacco taxes have a much broader intent—to increase the price of tobacco products so that they are less affordable and, ultimately, to reduce tobacco use globally. Nearly two decades on, challenges remain with implementation. We hope that this second edition of the *Tobacconomics Cigarette Tax Scorecard* will help the Parties face these challenges together towards the full realization of this global agreement.

Introduction

Following the biennial release of the WHO Report on the Global Tobacco Epidemic, 2021 (RGTE), this second edition of the Tobacconomics Cigarette Tax Scorecard uses the newly released data to assess countries' cigarette tax policies with respect to consistency with the widely accepted best practices articulated in the FCTC Article 6 Guidelines, the 2021 WHO Technical Manual on Tobacco Tax Policy and Administration, the NCI-WHO Monograph 21: The Economics of Tobacco and Tobacco Control, the World Bank Tobacco Tax Reform and Curbing the Epidemic reports, and other seminal research on effective tobacco taxation.

The Scorecard scores cigarette tax policy performance in 160 countries on a five-point scale. Using a transparent and simple grading scheme, the Scorecard is designed to evaluate and inform effective cigarette tax policy by showing specific areas of improvement for each country's tax policy.

Extensive guidance on best practices in tobacco taxation has been developed by the World Health Organization (WHO), Parties to the WHO Framework Convention on Tobacco Control (FCTC), the World Bank, and academics and researchers worldwide. The Scorecard incorporates this guidance into a five-point rating system to assess countries' cigarette tax policies based on four established best practices for cigarette taxation.

This Cigarette Tax Scorecard assesses countries' cigarette tax systems with respect to their consistency with the following sources of best practices in cigarette taxation:

WHO FCTC Article 6 and Article 6 Guidelines (2014) The WHO FCTC, the world's first public health treaty under the auspices of the WHO, entered into force in February 2005 and currently has 182 Parties, covering 90 percent of the global population. While acknowledging tax sovereignty, Article 6 of the treaty calls on Parties to use tax and price measures to reduce the demand for tobacco products, especially among young people (WHO, 2003). Guidelines on Article 6 were adopted by the Conference of the Parties and are based on evidence, best practices, and experiences of the Parties that have successfully implemented tax and price measures to reduce tobacco consumption (WHO, 2014).

WHO Technical Manual on Tobacco Tax Policy and Administration (2021) This technical manual details best practices to inform governments on the development of their tobacco taxation policy, facilitating the achievement of their health and revenue objectives while also supporting their overall development strategy. The manual guides readers through the necessary steps to create and implement the strongest tobacco taxation policies for their specific countries, provides illustrative recent examples from a variety of countries, and includes practical pointers on how to navigate through the political process and ensure the right support for tax policy change. (WHO, 2021, 2010).

World Bank *Tobacco Tax Reform* (2017) and *Curbing the Epidemic* reports (1999) These reports examine economic questions and policy options for tobacco taxation and other tobacco control measures, analyze global trends in tobacco use, and assess the consequences of tobacco control for health, economies, and individuals. Both reports draw on the existing global evidence, particularly evidence from low- and middle-income countries (World Bank, 2017; Jha & Chaloupka, 1999).

NCI-WHO Monograph 21: The Economics of Tobacco and Tobacco Control (2018) The Monograph systematically examines the extensive global research and evidence base surrounding the economics of tobacco control (NCI & WHO, 2018). Chapter 4 of the Monograph discusses models of the demand for

tobacco products, evidence of the impact of taxes and prices on the demand for tobacco products, and the effect of factors such as age and gender on sensitivity to changes in the price of tobacco products. Chapter 5 of the Monograph reviews the evidence on the design and administration of tobacco taxes.

The five-point grading system derives scores largely from data in the tax/price-related appendices of the recently released biennial *WHO Report on the Global Tobacco Epidemic (RGTE)*, which reports 2020 data. The report monitors the status of the tobacco epidemic and the most effective and cost-effective government interventions—both price and non-price measures—for reducing tobacco consumption. Comparable scores are constructed for 2018, 2016, and 2014 using data in the 2019, 2017, and 2015 *RGTE*, respectively, to assess changes over time in cigarette tax systems.

The Scorecard uses a five-point index based on four key components outlined below:

COMPONENT 1 Cigarette Price



Price is a key determinant of tobacco use. While higher prices reduce consumption, cigarettes are relatively price inelastic: an increase in price will result in a less-than-proportional decline in consumption. Therefore, price must be sufficiently high to reduce consumption enough to generate clear public health benefits. Any metric that compares prices across countries must be based on a measure that takes consumers' purchasing power into account; in this Scorecard, purchasing power parity (PPP) adjusted prices are used. The highest score goes to a PPPadjusted price of ten international dollars or higher in 2018, adjusted for inflation, for a pack of 20 of the most-sold brand of cigarettes.

COMPONENT 2 Changes in Cigarette Affordability



In addition to price, income also affects demand. Rapid economic growth resulting in increases in income can offset increases in taxes and prices and limit their impact on consumption. Research demonstrates that increasing affordability of cigarettes leads to an increase in consumption, while decreasing affordability reduces consumption. Increases in cigarette taxes and prices must be high enough to reduce cigarette affordability and impact use. The Scorecard gives the highest score for a statistically significant annual average change in affordability of 7.5 percent or higher between 2014 and 2020 that is the result of at least one excise tax increase during that period.

COMPONENT 3 Tax Shares



Tax shares should be high enough to reduce tobacco use while also allowing governments to gain revenue from the price increase. If a price increase results from industry price increases alone although consumption will fall—the new revenues will go to the tobacco industry. The Scorecard component gives the highest scores for a 70percent-or-greater excise share and a 75-percent-or-higher total tax share, averaging the separate scores for each of the two tax shares to create a single tax share score.

COMPONENT 4



Appropriate tax structures are critical in ensuring that tax increases reduce tobacco use and increase government revenues. The Scorecard gives the highest score for either: (1) a uniform specific excise tax that is automatically adjusted; or (2) a mixed excise tax with a greater tax share for the specific component in addition to a minimum tax, an automatic adjustment to the specific tax component, and the use of the retail price as the base for the ad valorem tax component.

The Scorecard aims to provide a comprehensive, transparent, objective, and simple approach to assessing the strength of cigarette tax systems globally. By using the four components outlined above, the Scorecard recognizes that a single indicator is insufficient. The most widely used indicator—the share of retail cigarette prices that are accounted for by taxes—captures one aspect of cigarette taxes, but countries can have high tax shares and still see low cigarette prices and increasing cigarette affordability. Moreover, the tax share does not capture the strengths and weaknesses of countries' tax structures. For example, weak tax structures create greater variability in cigarette prices that allow smokers to trade down to cheaper brands when taxes rise, limiting the health and revenue benefits of higher taxes.

Road Map to the Scorecard

This Scorecard describes the overall scoring results, changes over time, and the scoring for each of the four components. Appendices provide the country-by-country overall scores by ranking, alphabetically by each grading component, and by all years to show change in scores over time. Data presented by region reflect the six regional groupings defined by WHO (African region – AFR; region of the Americas – AMR; Eastern Mediterranean region – EMR; European region – EUR; South-East Asia region – SEAR; and Western Pacific region – WPR), while data presented by income level reflect the country income categories defined by the World Bank. The Scorecard along with Cigarette Tax Scorecard Component Notes, interactive maps, selected country- and region-specific briefs, as well as a full set of country score PowerPoint slides are available on the Tobacconomics website at **www.tobacconomics.org**.

Cigarette Tax Scorecard – Overall Scores

The overall cigarette tax scores for 2020 are presented in Figure 1 and Table 1 for the 160 countries with available data for each of the four components. This composite score is constructed as the simple average of the scores on each of the four key components: cigarette price, change in cigarette affordability, share of taxes in cigarette prices, and cigarette tax structure. The overall score can range from a low of zero for countries that score zero on each component, to a high of five for countries that receive the highest score on each component. Scores for each of the four components are discussed below.

In 2020 eight countries received a score of four or higher (twice as many as in 2018), led by Ecuador and New Zealand, both scoring 4.63, and followed by the United Kingdom and Canada, with scores of 4.38 and 4.25, respectively. The high scores in Ecuador and New Zealand reflect their very high uniform specific cigarette excise taxes, which result in very high cigarette prices, as well as regular increases in cigarette taxes in recent years along with adjustments for inflation that have led to significant reductions in the affordability of cigarettes. Ecuador has a uniform specific tax that is semi-annually adjusted for inflation, resulting in high cigarette prices and a sharp reduction in affordability. Similarly, for the past decade beginning in 2010 through January 2020, New Zealand has raised its cigarette tax by at least ten percent plus inflation in January of each year.

The United Kingdom is the only country among the top four that uses a mixed cigarette excise tax system. This system includes a significant specific tax component that is automatically increased each year and an ad valorem component that is levied based on retail cigarette prices. Additionally, the government has increased taxes (beyond inflation updates), which has led to a significant reduction in the affordability of cigarettes. Canada, a newcomer into the top four countries in the *Tobacconomics Cigarette Tax Scorecard*, also has a federal-level uniform specific excise that is automatically adjusted for inflation. Botswana, France, Peru, and Seychelles follow closely behind with overall scores of 4.13.

At the other end of the spectrum, Afghanistan and Iraq have scores of zero in 2020, reflecting the lack of a cigarette excise tax and minimal other taxes, resulting in very inexpensive cigarettes.¹ Afghanistan has seen some reduction in the affordability of cigarettes in recent years, but not as the result of an increase in taxes on cigarettes. Lebanon and Libya do only marginally better, with overall scores of 0.25 in 2020 since their cigarette prices are a bit above the lowest levels in the world. Approximately thirteen countries worldwide have no excise tax on cigarettes.

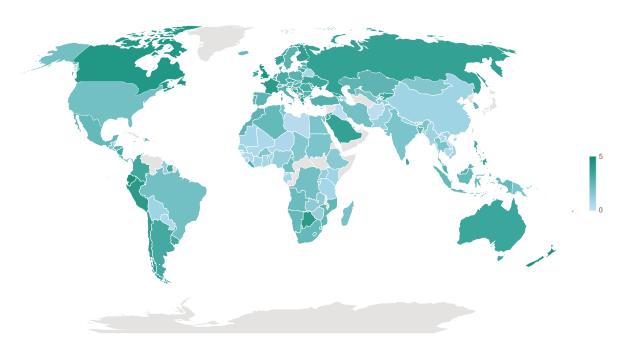
As shown in Table 2, the European region average is the highest of the WHO regions with an average score of 2.92, up from 2.82 in 2018; nevertheless, this is just over half of the possible 5.0 score for countries performing at the highest level across all components. The relatively high score in the European region reflects stronger tax structures and higher taxes and prices that result from the European Union's tobacco tax directive, with which the member countries are required to comply, as well as the implementation of similar taxes in countries aspiring to join the union. The region of the Americas is not far behind with an average score of 2.42 for 2020, up from an average of 2.16 in 2018.

¹ It is important to note that these countries have been experiencing complex emergency situations, which the Eighth FCTC Conference of Parties acknowledged in a consensus decision FCTC/COP8(20), upholding that tobacco control should not be overlooked because the tobacco industry is working aggressively to increase consumption in these countries.

Although the African region continues to rank lowest at 1.64 in 2020, **the regional average improved from 1.30 in 2018**. Each of the WHO regional average scores improved from 2018, with the largest gains in the African and the South-East Asia regions. Among the African region countries, **Liberia had the largest overall score jump (0.5 to 3.13)** due to score increases in all four components. Among the South-East Asia region countries, **Bangladesh saw the greatest increase in overall score (1.38 to 2.63)** primarily due to the affordability change score increase from zero to five.

Table 3 presents the scores by World Bank income category. Similar to the last edition of the Scorecard, there is a clear relationship between overall scores and country income, with average scores mostly rising with income. The largest average score gains from 2018 to 2020 are in the low-income and high-income groups. Among the **low-income group Liberia's improvement (0.5 to 3.13) was most substantial**, and among the **high-income group Qatar had the largest increases (0.63 to 3.88)**. Both countries' overall score increases were due to improved scores in all four components.





Note: Countries in gray lack necessary data to generate this measure.

Table 1 Overall cigarette tax scores, 2020

Score < 1.0 N=26

Azerbaijan

Bolivia (Plurinational

1.0 ≤ Score < 2.0 N=36

Armenia

Togo

Egypt

India

Kiribati

Sudan

Thailand

Burkina Faso

Tunisia

Chad

Mongolia

Rwanda

Cabo Verde

Saint Vincent and

the Grenadines

Timor-Leste

Guatemala

Tajikistan

Tuvalu

Zambia

Guyana

Nigeria

Principe

Uganda

Zimbabwe

Pakistan

Myanmar

Viet Nam

Nepal

Sao Tome and

Dominica

Comoros

Ethiopia

Burundi

Belize

Madagascar

Uzbekistan

Papua New Guinea

2.0 ≤ Score < 3.0 N=51

Albania

Bulgaria

Hungary

Republic of

Moldova

Slovenia

Bahamas

Malaysia

Poland

Portugal

Slovakia

Sweden

Tobago

Croatia

Gambia

Honduras

Morocco

Eswatini

Mozambique

Switzerland

Algeria

Austria

Cyprus

Dominican

Republic

Indonesia

Luxembourg

South Africa Angola Costa Rica Cameroon

Lesotho

Mexico

Namibia

Iceland

Republic of Korea

Spain

Kazakhstan

Trinidad and

Bangladesh

Turkey

Italy

Israel

Latvia

Fiji

3.0 ≤ Score < 4.0 N=39 Bahrain Chile Finland Greece Qatar **Russian Federation** Saudi Arabia Bosnia and Herzegovina Georgia Montenegro Norway Philippines Sri Lanka Australia Kyrgyzstan Occupied Palestinian territory Ukraine Colombia Ireland Jordan Lithuania Nicaragua North Macedonia Argentina Belgium Czechia Serbia Singapore Suriname Uruguay Germany Jamaica Liberia Malta Mauritius Romania Denmark Estonia Netherlands

Score ≥ 4.0 N=8

Ecuador New Zealand United Kingdom of Great Britain and Northern Ireland Canada Botswana France Peru Seychelles

State of) China Democratic Republic of the Congo Kenya Senegal Antigua and Barbuda Belarus Benin Côte d'Ivoire Equatorial Guinea Gabon Ghana Mauritania United Republic of Tanzania Cambodia Guinea Lao People's Democratic Republic Mali Niger Paraguay Sierra Leone Lebanon Libva Afghanistan Iraq

Table 1	Overall cigarette tax scor	es, 2020, continued		
Score < 1.0 N=26	1.0 ≤ Score < 2.0 N=36	2.0 ≤ Score < 3.0 N=51	3.0 ≤ Score < 4.0 N=39	Score ≥ 4.0 N=8
		El Salvador Panama Saint Lucia Brazil Congo Iran (Islamic Republic of) Maldives United States of America Vanuatu		

Note: Countries in each column are listed in order of their scores, from highest to lowest, and alphabetically when scores are identical.

Table 2 Overall cigarette tax scores, globally and by WHO region, 2020									
Region	AFR	AMR	EMR	EUR	SEAR	WPR	Global		
Score	1.64	2.45	1.99	2.92	1.96	2.16	2.28		
Change 2018–2020	(+0.33)	(+0.29)	(+0.27)	(+0.10)	(+0.36)	(+0.07)	(+0.23)		

Table 3	Overall cigarette tax scores	globally and b	v World Bank income	aroup, 2020
	everal eigerette tax eeeree	grobally and b	y world Barne moonlo	group, 2020

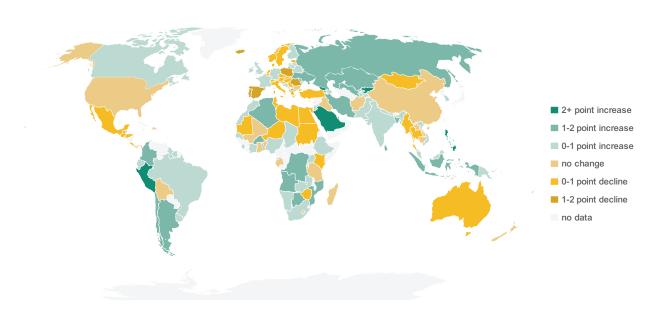
Income group	Low	Lower-middle	Upper-middle	High	Global
Score	1.42	1.78	2.33	3.11	2.28
Change 2018–2020	(+0.30)	(+0.23)	(+0.22)	(+0.26)	(+0.23)

Change Over Time

Figure 2 below shows that over the past six years there has been improvement in the overall scores, with the global average score rising from 1.93 in 2014 to 2.28 in 2020. Among the 153 countries for which scores could be computed in both years, overall scores have improved in 81 countries, stayed the same in 24 countries, and worsened in 48 countries. Scores improved the most in Qatar (+3.38), Bahrain (+3.13), and Saudi Arabia (+3.00), followed by Kyrgyzstan (+2.88), Georgia and Peru with overall gains of 2.75 points, the Philippines with a 2.38 score increase, and, finally, the Islamic Republic of Iran and Republic of Moldova with an increase of 2.00 in their overall scores.

In each country that has seen improvement in its score, cigarettes have become less affordable. The **improvements in Bahrain, Qatar, and Saudi Arabia** reflect the introduction of substantial cigarette excise taxes coordinated regionally, after previously relying on import duties, while those in **Kyrgyzstan and the Philippines** resulted from the simplification of previously complicated tiered cigarette excise tax structures accompanied by continued tax increases over the past three reporting periods. **Georgia's score improvement** is from a substantial tax increase beginning in 2019 and a reform to make the specific tax uniform across filtered and unfiltered cigarettes. Finally, **Peru continues to see steady gains in its score** through tax increases and annual updates of the tax for inflation beginning in 2020.

Figure 2 Changes in countries' overall scores, 2014–2020



Note: Countries in gray lack necessary data to generate this measure.

Cigarette Price

Given the extensive evidence on the impact of prices on smoking behavior, the price of cigarettes is a key indicator for the performance of a country's tobacco tax system. This Scorecard component is based on the price of a 20-cigarette pack of the most-sold brand in international dollars, adjusted for purchasing power parity (PPP)². According to the prices reported for 2020³, scores are based on the following:



Scoring – Cigarette Price: 5: Price ≥ 10.0 Intl\$ PPP 4: 8.0 ≤ price < 10.0 3: 6.0 ≤ price < 8.0 2: 4.0 ≤ price < 6.0 1: 2.0 ≤ price < 4.0 0: Price < 2.0 Intl\$ PPP

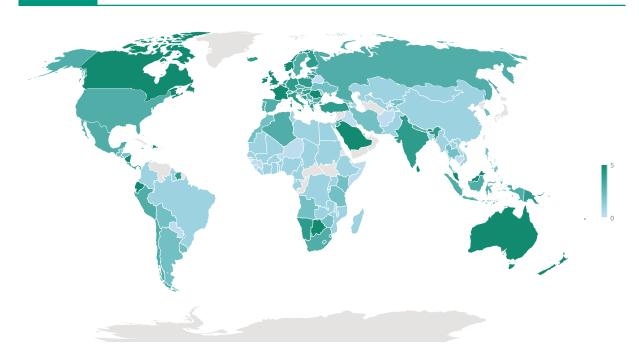
Figure 3 presents the cigarette price scores for 2020. Among the 163 countries with available data, 25 countries received the highest score of five (up from 19 in 2018), led by Sri Lanka (Intl\$ PPP 24.19), New Zealand (Intl\$ PPP 20.07), Australia (Intl\$ PPP 18.74), and Fiji (Intl\$ PPP 18.64). Twelve countries received a score of zero, with the lowest prices in Paraguay (Intl\$ PPP 0.82), Iraq (Intl\$ PPP 0.92), Democratic Republic of the Congo (Intl\$ PPP 1.07), and Guinea (Intl\$ PPP 1.22). As demonstrated in Table 4, average cigarette prices were higher in the South-East Asia, Western Pacific, and European regions and lowest in the African region. Average cigarette prices (adjusted for inflation) rose across all WHO regions, rising the most in the South-East Asia region and the least in the European region and African region. Average prices and price scores rise with country income, as shown in Table 5.

It should be noted that average cigarette prices in low-income countries actually decreased from 2018 by Intl\$ PPP 0.28. Lowering these prices makes cheap cigarettes more accessible to low-income populations, especially young people. At the same time, the tobacco industry is increasing prices in other regions, which allows the industry to maintain stable global profits while expanding their market in low-income countries. This expanded market translates into increases in smoking prevalence and the resulting tobacco-related diseases and deaths, not to mention the economic burden of added health care spending and lost productivity.

² Purchasing power parity is a common metric used to compare countries' currencies based on an exchange that allows one to buy the same amount of goods and services in each country.

³ These prices are converted to 2018 prices to compare them with those in the previous Scorecard.





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

Table 4Average cigarette price (\$Intl PPP) and average price score, globally and by WHO region, 2020									
Region	AFR	AMR	EMR	EUR	SEAR	WPR	Global		
Price	\$4.10	\$6.72	\$5.68	\$7.64	\$9.11	\$8.14	\$6.49		
Change 2018–2020	(+\$0.37)	(+\$0.68)	(+\$0.45)	(+\$0.19)	(+\$1.74)	(+\$1.27)	(+\$0.52)		
Score	1.49	2.83	2.06	3.16	3.10	2.69	2.50		
Change 2018–2020	(+0.23)	(+0.38)	(+0.12)	(+0.00)	(+0.32)	(+0.10)	(+0.16)		

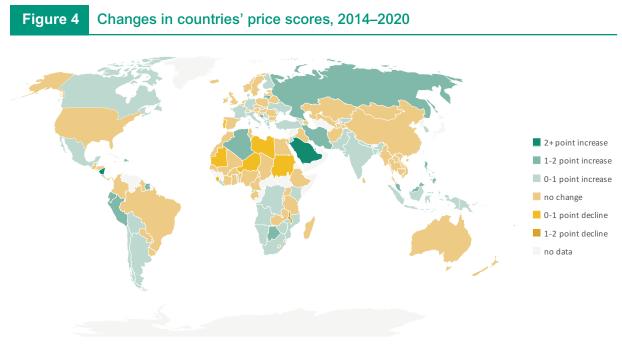
Note: Countries with updates in the 2018 scores are presented in Appendix Table 4.

Table 5 Average cigarette price (\$Intl PPP) and average price score, globally and by World Bank income group, 2020								
Income group	Low	Lower-middle	Upper-middle	High	Global			
Price	\$2.50	\$5.26	\$6.36	\$9.76	\$6.49			
Change 2018–2020	(-\$0.28)	(+\$0.71)	(+\$0.20)	(+\$1.29)	(+\$0.52)			
Score	0.65	1.96	2.60	3.82	2.50			
Change 2018–2020	(-0.19)	(+0.30)	(+0.13)	(+0.33)	(+0.16)			

Note: Countries with updates in the 2018 scores are presented in Appendix Table 4.

Change Over Time

Cigarette price scores have risen over time, from an average of 1.98 out of 5.00 in 2014 to 2.50 in 2020. As shown in Figure 4 below, the number of countries receiving the highest score has risen from 11 in 2014 to 25 in 2020, while the number of countries receiving the lowest score has decreased from 17 in 2014 to 12 in 2020. Over the past six years, five countries have experienced more than a two-point increase, while ten countries have seen a one-to-two-point decline.



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

Change in Cigarette Affordability

Cigarette taxes need to increase enough to raise prices by more than income increases to make cigarettes less affordable. The second scoring component assesses changes in cigarette affordability over a six-year period. Affordability is defined as the percentage of per capita GDP required to purchase 2000 cigarettes of the most-sold brand, with an increase in this measure implying that cigarettes are becoming less affordable over time. In order to avoid giving credit to countries where affordability has fallen due to reduced incomes or higher industry prices, higher scores are given to countries where the reduction in affordability has at least partly resulted from a cigarette excise tax increase. The 2020 scores for this component are based on statistically significant changes⁴ in the affordability of the most-sold brand of cigarettes between 2014 and 2020, as follows:



Scoring – Change in Affordability:

- 5: 7.5% average annual change or higher
- 4: $5.0\% \le average annual change < 7.5\%$
- 3: $2.5\% \le average annual change < 5.0\%$
- 2: Average annual change < 2.5%
- 1: Reduced affordability, but no excise tax increase
- 0: Increased affordability or no statistically significant change

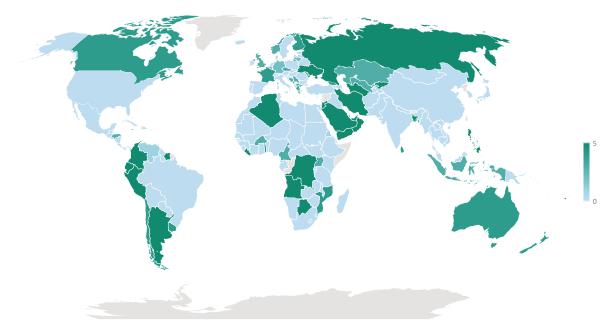
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Figure 5 presents the scores for the changes in cigarette affordability between 2014 and 2020. Among the 187 countries with available data, **26 countries received the highest score of five (up from 22 in 2018)**, led by the Islamic Republic of Iran (average annual reduction of 26.44 percent), Saudi Arabia (22.47 percent), Oman (19.74 percent), Qatar (19.66 percent), and United Arab Emirates (18.14 percent). In contrast, most countries—114 of the 187—received a score of zero because they saw either no statistically significant change in affordability over time (94 countries) or a significant increase in affordability (20 countries).

Table 6 shows the average changes in affordability among countries that have seen changes in affordability, by region, as well as the average scores regionally and globally for the affordability component of the Scorecard; in computing these averages, countries with non-significant changes in affordability were assigned a score of zero. The largest declines in affordability occurred in the Eastern Mediterranean region (average annual decline of 6.92 percent—an improvement from the 5.20 percent decline in 2018) followed by the region of the Americas (a 4.21 percent decline from 3.31 percent in 2018). The European region experienced the lowest average drop in affordability.

As shown in Table 7, lower-middle-income countries score worst on the affordability measure (though the actual average is worse for low-income countries), while the upper-middle-income countries score highest. The lower scores for lower-middle-income countries are at least in part attributable to the relatively greater increases in income in these countries.

⁴ Statistically significant change in affordability is based on the approach used in the *RGTE*, which uses a simple model that regresses the natural logarithm of the affordability measure on a year variable.



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

Table 6 Average annual cigarette affordability change and affordability change score, globally and by WHO region, 2020									
Region	AFR	AMR	EMR	EUR	SEAR	WPR	Global		
Affordability change	2.52%	4.21%	6.92%	1.73%	3.52%	2.50%	3.12%		
Change 2018–2020	(+0.64%)	(+0.90%)	(+1.72%)	(+0.15%)	(+3.31%)	(+0.89%)	(+0.82%)		
Score	1.11	1.50	2.05	1.38	1.44	1.28	1.40		
Change 2018–2020	(+0.39)	(+0.26)	(+0.45)	(+0.10)	(+1.00)	(+0.12)	(+0.28)		

Note: Countries with updates in the 2018 scores are presented in Appendix Table 4.

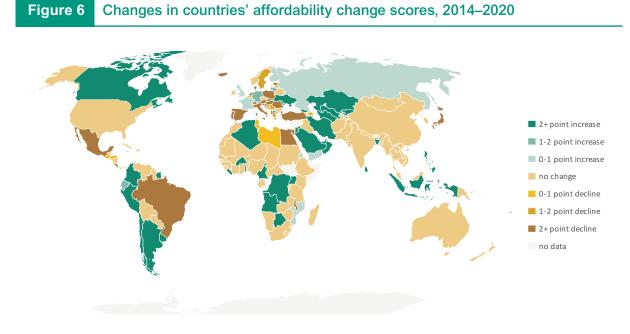
Table 7 |Average annual cigarette affordability change and affordability change score,
globally and by World Bank income group, 2020

Income group	Low	Lower-middle	Upper-middle	High	Global
Affordability change	2.24%	2.32%	4.11%	3.30%	3.12%
Change 2018–2020	(-0.62%)	(+1.89%)	(+0.80%)	(+0.80%)	(+0.82%)
Score	1.21	1.15	1.59	1.52	1.40
Change 2018–2020	(+0.14)	(+0.53)	(+0.28)	(+0.18)	(+0.28)

Note: Countries with updates in the 2018 scores are presented in Appendix Table 4.

Change Over Time

As demonstrated in Figure 6 below, over the past six years there has been a slight improvement in the cigarette affordability scores between 2014 (a global average score of 1.26) and 2020 (a global average of 1.40), accompanied by an increase in countries with the highest score of five (from 15 countries in 2014 to 26 countries in 2020). However, over the past six years, while 39 countries have experienced more than a two-point increase, 37 countries have seen a two-point-or-greater decline.



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

V Tax Share

The most commonly used metric for assessing the strength of countries' cigarette tax systems has been the share of taxes in retail cigarette prices. More than two decades ago the World Bank recommended that taxes should account for between two-thirds and four-fifths of cigarette prices. More recently, in the *RGTE*, WHO describes countries where taxes are at least 75 percent of retail price as the highest achieving countries. Others have focused on the share of excise taxes in retail prices, given that excise taxes are more important in raising the price of cigarettes relative to the prices of other products and, as a result, will have a greater impact on cigarette smoking. Each measure has its own strengths and limitations. For these reasons, the Scorecard tax share component is based on the average of the scores for two tax share indicators—one based on the share of all taxes in cigarette prices and the other focused on the share of excise taxes in prices. The scoring for each is as follows:



Scoring – Total Tax Share:

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

Scoring – Excise Tax Share:

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

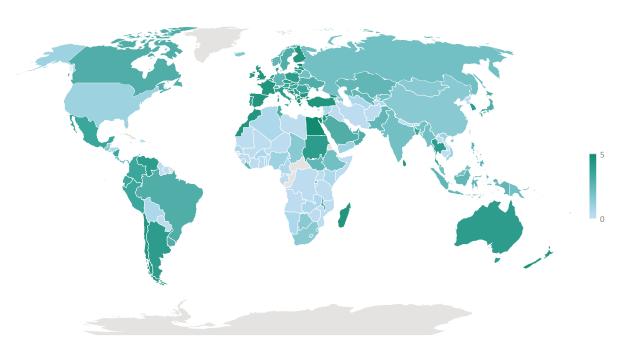
Figure 7 presents the cigarette tax share scores for 2020. Of the 181 countries with available data, **four received the highest score of five:** Andorra (78.41 percent total tax share, 74.10 percent excise tax share), Egypt (78.53 percent, 73.53 percent), Estonia (87.64 percent, 70.98 percent), and 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.

As demonstrated in Table 8, tax shares and 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. At the same time, however, the African region has seen the highest average gains in total tax share and excise tax share from 2018 to 2020. The Eastern Mediterranean region follows closely and shows the most improvement in scores for both measures as well as the combined score. From 2018 to 2020, total tax shares decreased in the South-East Asia and Western Pacific regions, while excise tax shares decreased in the region of the Americas and Western Pacific region where scores for both also decreased.



As with cigarette prices, tax shares and 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, and lower-middle-income country average total tax shares, excise tax shares, and scores all decreased marginally.

Figure 7 Tax share scores, 2020



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

Table 8Average total tax shares, excise tax shares, and tax share scores,
globally and by WHO region, 2020

Region	AFR	AMR	EMR	EUR	SEAR	WPR	Global
Total tax share	40.70%	49.36%	50.53%	71.38%	47.36%	52.23%	53.86%
Change 2018–2020	(+3.59%)	(+0.47%)	(+3.32%)	(+1.81%)	(-0.78%)	(-2.83%)	(+1.43%)
Total tax share score	1.30	2.10	2.52	4.10	2.36	2.29	2.56
Change 2018–2020	(+0.30)	(+0.01)	(+0.29)	(+0.14)	(+0.16)	(-0.21)	(+0.13)
Excise tax share	27.04%	35.42%	33.38%	54.97%	32.01%	35.37%	38.44%
Change 2018–2020	(+2.91%)	(-0.63%)	(+2.85%)	(+1.89%)	(+0.01%)	(-2.77%)	(+1.08%)
Excise tax share score	0.75	1.37	1.86	2.92	1.36	1.71	1.76
Change 2018–2020	(+0.14)	(-0.09)	(+0.33)	(+0.08)	(+0.06)	(-0.10)	(+0.07)
Combined tax share score	1.02	1.73	2.19	3.51	1.86	2.00	2.16
Change 2018–2020	(+0.22)	(-0.04)	(+0.31)	(+0.11)	(+0.11)	(-0.15)	(+0.10)

globally and by World Bank income group, 2020								
Income group	Low	Lower-middle	Upper-middle	High	Global			
Total tax share	41.59%	43.91%	54.30%	69.01%	53.86%			
Change 2018–2020	(+8.70%)	(-2.92%)	(+1.25%)	(+2.07%)	(+1.43%)			
Total tax share score	1.50	1.65	2.62	3.88	2.56			
Change 2018–2020	(+0.67)	(-0.16)	(+0.19)	(+0.10)	(+0.13)			
Excise tax share	25.80%	31.06%	37.21%	52.92%	38.44%			
Change 2018–2020	(+6.46%)	(-3.10%)	(+1.39%)	(+1.59%)	(+1.08%)			
Excise tax share score	0.83	1.12	1.62	2.96	1.76			
Change 2018–2020	(+0.50)	(-0.13)	(+0.03)	(+0.09)	(+0.07)			
Combined tax share score	1.17	1.38	2.12	3.42	2.16			
Change 2018–2020	(+0.58)	(-0.15)	(+0.11)	(+0.10)	(+0.10)			

 Table 9
 Average total tax shares, excise tax shares, and tax share scores,

Change Over Time



As demonstrated in Figure 8 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.



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

Excise Tax Structure

The structure of an excise tax greatly determines its effectiveness in

achieving the public health and revenue goals of the tax, with simple, uniform tax structures typically having greater impact. Tiered excise tax structures with rates varying based on price, cigarette length, presence of a filter, cigarette packaging, production type and/or level, and/or other factors make cigarette taxes more difficult to administer and easier to avoid and are, thus, less effective than other tax structures. Structures that only rely on ad valorem taxes are more difficult to administer and vulnerable to manipulation by the industry. This component of the Scorecard assesses multiple dimensions of cigarette excise tax structures as follows:

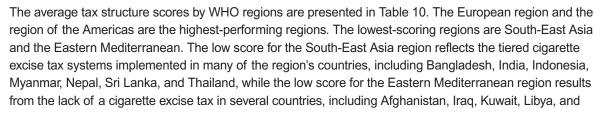


Scoring – Tax Structure:

- 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

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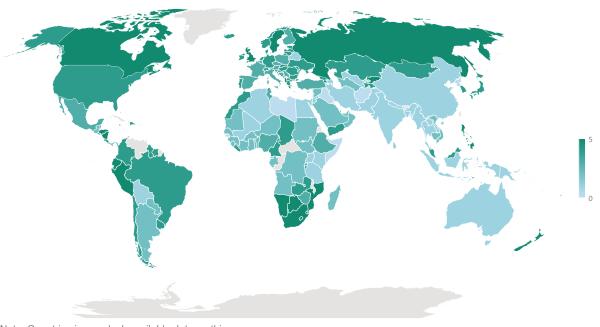
Figure 9 presents the tax structure scores for 2020. Of the 178 countries with available data, 19 countries received the highest score of five. Of these, 16 countries implement a uniform specific cigarette excise tax that is automatically adjusted for inflation or other factors: Albania, Armenia, Botswana, Canada, Ecuador, Eswatini, Honduras, Kyrgyzstan, Lesotho, Mozambigue, Namibia, New Zealand, Nicaragua, Peru, the Philippines, and South Africa. The other three countries apply a uniform mixed system with a greater share for the specific tax, an automatic adjustment for the specific tax, a retail price base for the ad valorem tax, and a minimum specific tax: Russian Federation, Sweden, and the United Kingdom. An additional 64 countries use either a uniform specific tax that is not automatically adjusted or a mixed system with a greater share of specific tax that does not include each of the three features required for the highest score. Twenty-three countries use a uniform mixed system that gives greater weight to the ad valorem component, while 32 apply a uniform ad valorem tax. There are 27 countries (down from 31 in 2018) that use some form of tiered excise tax structure, with rates varying based on price, cigarette length, presence of a filter, cigarette packaging, production type and/or level, and/or other factors. Georgia, Japan, Mozambigue, and the Republic of Moldova transitioned from a tiered excise tax structure and scored higher on this component. Finally, 13 countries do not levy an excise tax on cigarettes, instead relying on import duties and/or other taxes.



Somalia, and a reliance on ad valorem-based structures in many others. From 2018 to 2020, the African region showed the largest gains in tax structure score average, while the average in the South-East Asian region did not change, and in the Western Pacific region the average score decreased slightly. Among the African region countries, Mozambique had the largest increase in the structure score, which was due to a change from a tiered excise tax structure to a uniform specific cigarette excise tax that is automatically adjusted for inflation or other factors.

The average scores by World Bank income groups are presented in Table 11. As with the cigarette price and tax share measures, tax structure scores rise with income. However, **low-income countries exhibit the largest** average score gains from 2018 to 2020 relative to other income groups. Among the low-income countries, **Mozambique's improvement was the largest, followed by Liberia and Chad**, where the tax structure changed from a uniform ad valorem system to a mixed system with a greater share of specific tax that does not include other features.

Figure 9 Tax structure scores, 2020



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

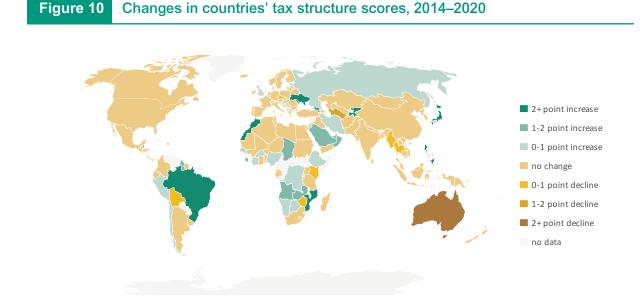
Table 10 Average tax structure scores, globally and by WHO region, 2020							
Region	AFR	AMR	EMR	EUR	SEAR	WPR	Global
Score Change 2018–2020	2.84 (+0.41)	3.59 (+0.25)	1.57 (+0.14)	3.59 (+0.16)	1.10 (+0.00)	2.42 (-0.04)	2.87 (+0.18)

Table 11 Average tax structure scores, globally and by World Bank income group, 2020								
Income group	Low	Lower-middle	Upper-middle	High	Global			
Score	2.30	2.63	2.87	3.37	2.87			
Change 2018–2020	(+0.27)	(+0.26)	(+0.22)	(+0.02)	(+0.18)			

Change Over Time

As demonstrated in Figure 10 below, tax structure scores have changed little over time, rising from a global average score of 2.48 in 2014 to 2.87 in 2020. The vast majority of countries have not changed their tax structures during this period. The most significant changes to tax structure were implemented in Armenia, Belize, Kyrgyzstan, Mozambique, and the Philippines. After having no cigarette excise tax, Belize introduced a uniform specific excise, raising its score for this component from zero to four. **Meanwhile Armenia**, **Kyrgyzstan**, **Mozambique**, and the Philippines went from a tiered tax system to uniform specific excise tax with automatic adjustments, raising their scores from one to five. An additional 37 countries saw improvements in their tax structure score from 2014 to 2020.

In contrast, thirteen countries saw their tax structure score fall from 2014 to 2020, including Kenya (reinstatement of a tiered specific tax in 2015), Thailand (replacement of a uniform ad valorem tax with a tiered ad valorem tax based on price), and Turkmenistan (change from a uniform specific to a uniform ad valorem tax). The largest score declines were seen by Australia and Lebanon. For Australia, the decline is due to a change in how the tax structure was reported to WHO for the most recent WHO *RGTE*. However, for Lebanon, the decline in score is due to a new exemption of local producers from the excise tax on tobacco. Because the local brands are the most-sold brands, Lebanon received a score of zero for its tax structure.



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

Conclusion

This edition of the Scorecard shows that, overall, scores are modestly improving over time but not quickly enough. Over the past six years the global average score rose from 1.93 (out of 5.00) in 2014 to 2.28 in 2020. Additionally, all WHO regions' and country income groups' average overall scores show slight improvement from 2018 to 2020. However, in 2020, only 75 of the 160 countries for which data are available score 2.50 or higher out of a maximum of five points. Particularly during the pandemic-related budget crises that many governments are facing, this slow pace of reform is a lost opportunity for improving public health and engendering sustainable economic growth.

These small improvements are also accompanied by troubling signs in the component average scores. Cigarette prices in low-income countries have decreased by \$Intl PPP 0.28 from 2018 to 2020, and cigarettes are becoming more affordable. The cigarette industry strategically lowers prices to make them more accessible to low-income populations, especially young people, to expand the market for cigarettes. Additionally, while the average prices are increasing in the Western Pacific region and the region of the Americas, the tax share of price is decreasing. Tax rates should increase in these countries so that governments gain more tax revenues from the higher prices instead of contributing to the tobacco industry's profits and global market expansion.

Implementation of the provisions in Article 6 of the WHO FCTC has been slow in many countries. Despite the overwhelming adoption of this global treaty, its potential has not yet been fulfilled. The lack of implementation of effective cigarette tax policies, combined with the strategic pricing by the tobacco industry, have contributed to stall progress towards the achievement of the FCTC's goal of ending the global tobacco epidemic. It is hoped that through diligent monitoring and publications such as this Scorecard, governments will act to accelerate progress in cigarette tax policies so that the full health and revenue potential of Article 6 of the FCTC can be realized.

Limitations of the Scorecard

The four-component measure developed in this report has several limitations. It does not include a measure of the effectiveness of tax administration, which is critical for minimizing tax avoidance and evasion. As a result, the Scorecard may overstate the strength of tax systems in some countries with high taxes and prices, falling affordability, and good tax structures. To some extent, the tax structure component will capture aspects of tax administration, given that simple uniform specific excise taxes are easier to administer and create fewer opportunities for tax avoidance and evasion (in other words, illicit trade), but this component will miss other key aspects of tax administration.

A second limitation is the focus on cigarette taxation, given the lack of comprehensive data on the taxation of other tobacco products. This is of particular importance for countries in which consumption of other tobacco products—including bidis, smokeless tobacco, and water pipe tobacco—is high. In addition, the Scorecard does not account for newer products like e-cigarettes and heated tobacco products. To the extent that taxes and prices on these non-cigarette products are low, relative to cigarette taxes and prices, there will be opportunities for substitution to the relatively cheaper products, reducing the health and revenue benefits of effective cigarette taxes.

Several of the components that comprise the overall score—including cigarette price, changes in affordability, and tax shares—are limited to the most-sold brand of cigarettes in each country. As a result, they do not reflect the variability in cigarette prices and the opportunities for smokers to switch to cheaper brands as cigarette taxes and prices rise. Again, this is partially, but not fully, captured by the tax structure component, given that the tax structures that score highest are those that reduce variability in prices across cigarette brands.

Additionally, some components are highly dependent on cigarette companies' pricing strategies. To the extent that cigarette companies raise prices by more than the amount of a tax increase, the tax share component may not fully reflect the aggressive tax increases implemented in countries like Australia and New Zealand. Alternatively, some countries may score well on the affordability component despite modest cigarette tax increases, if cigarette companies are increasing prices by much more than taxes are rising. Likewise, if industry prices are very low, tax shares can be very high, but retail prices can be low, and cigarettes can be highly affordable. To some extent, the multiple components of the overall score address some of these limitations, albeit imperfectly.

Finally, the thresholds used in determining the scores for the individual components are to some extent arbitrary. That said, these thresholds are in part based on relevant recommendations and empirical evidence, as well as on the distribution of the data for each component. While changes in the thresholds would change the component-specific and overall scores, changes would have less impact on the relative scores (among countries and/or over time).

Despite these limitations, this Scorecard provides the most comprehensive assessment of cigarette tax systems to date. As more comprehensive, consistently collected data on tax administration, other tobacco product taxes, and other factors become available, the Scorecard will be refined and improved.

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Appendices

Appendix Table 1 | Overall ranking of cigarette tax scores, 2020

Country	Overall score (2020)	Country	Overall score (2020)
Ecuador	4.63	Nicaragua	3.38
New Zealand	4.63	North Macedonia	3.38
United Kingdom of Great Britain		Argentina	3.25
and Northern Ireland	4.38	Belgium	3.25
Canada	4.25	Czechia	3.25
Botswana	4.13	Serbia	3.25
France	4.13	Singapore	3.25
Peru	4.13	Suriname	3.25
Seychelles	4.13	Uruguay	3.25
Bahrain	3.88	Germany	3.13
Chile	3.88	Jamaica	3.13
Finland	3.88	Liberia	3.13
Greece	3.88	Malta	3.13
Qatar	3.88	Mauritius	3.13
Russian Federation	3.75	Romania	3.13
Saudi Arabia	3.75	Denmark	3.00
Bosnia and Herzegovina	3.63	Estonia	3.00
Georgia	3.63	Netherlands	3.00
Montenegro	3.63	Albania	2.88
Norway	3.63	Bulgaria	2.88
Philippines	3.63	Fiji	2.88
Sri Lanka	3.63	Hungary	2.88
Australia	3.50	Israel	2.88
Kyrgyzstan	3.50	Latvia	2.88
Occupied Palestinian territory	3.50	Republic of Moldova	2.88
Ukraine	3.50	Slovenia	2.88
Colombia	3.38	Turkey	2.88
Ireland	3.38	Bahamas	2.75
Jordan	3.38	Italy	2.75
Lithuania	3.38	Malaysia	2.75

Appendix Table 1 | Overall ranking of cigarette tax scores, 2020

Country	Overall score (2020)	Country	
Poland	2.75	United States of Amer	
Portugal	2.75	Vanuatu	
Slovakia	2.75	Armenia	
Sweden	2.75	Madagascar	
Trinidad and Tobago	2.75	Тодо	
Bangladesh	2.63	Uzbekistan	
Croatia	2.63	Egypt	
Gambia	2.63	India	
Honduras	2.63	Kiribati	
Kazakhstan	2.63	Papua New Guinea	
Могоссо	2.63	Sudan	
Spain	2.63	Thailand	
Eswatini	2.50	Tunisia	
Mozambique	2.50	Burkina Faso	
Republic of Korea	2.50	Chad	
Switzerland	2.50	Mongolia	
Algeria	2.38	Rwanda	
Austria	2.38	Belize	
Cyprus	2.38	Cabo Verde	
Dominican Republic	2.38	Comoros	
Iceland	2.38	Ethiopia	
Indonesia	2.38	Saint Vincent and the	
Lesotho	2.38	Timor-Leste	
Luxembourg	2.38	Burundi	
Mexico	2.38	Guatemala	
Namibia	2.38	Tajikistan	
South Africa	2.38	Tuvalu	
Angola	2.25	Zambia	
Costa Rica	2.25	Dominica	
Cameroon	2.13	Guyana	
El Salvador	2.13	Nigeria	
Panama	2.13	Sao Tome and Princip	
Saint Lucia	2.13	Uganda	
Brazil	2.00	Zimbabwe	
Congo	2.00	Pakistan	
Iran (Islamic Republic of)	2.00	Myanmar	
Maldives	2.00	Nepal	

Country	(2020)
United States of America	2.00
Vanuatu	2.00
Armenia	1.88
Madagascar	1.88
Тодо	1.88
Uzbekistan	1.88
Egypt	1.75
India	1.75
Kiribati	1.75
Papua New Guinea	1.75
Sudan	1.75
Thailand	1.75
Tunisia	1.75
Burkina Faso	1.63
Chad	1.63
Mongolia	1.63
Rwanda	1.63
Belize	1.50
Cabo Verde	1.50
Comoros	1.50
Ethiopia	1.50
Saint Vincent and the Grenadines	1.50
Timor-Leste	1.50
Burundi	1.38
Guatemala	1.38
Tajikistan	1.38
Tuvalu	1.38
Zambia	1.38
Dominica	1.25
Guyana	1.25
Nigeria	1.25
Sao Tome and Principe	1.25
Uganda	1.25
Zimbabwe	1.25
Pakistan	1.13
Myanmar	1.00
Nepal	1.00

Overall score

Appendix Table 1 | Overall ranking of cigarette tax scores, 2020

Country	Overall score (2020)	Country	Overall score (2020)
Viet Nam	1.00	Central African Republic	
Azerbaijan	0.88	Cook Islands	
Bolivia (Plurinational State of)	0.88	Cuba	
China	0.88	Democratic People's Republic of Korea	a.
Democratic Republic of the Congo	0.88	Djibouti	
Kenya	0.88	Eritrea	
Senegal	0.88	Grenada	
Antigua and Barbuda	0.75	Guinea-Bissau	
Belarus	0.75	Haiti	
Benin	0.75	Japan	
Côte d'Ivoire	0.75	Kuwait	
Equatorial Guinea	0.75	Malawi	
Gabon	0.75	Marshall Islands	
Ghana	0.75	Micronesia (Federated States of)	
Mauritania	0.75	Monaco	
United Republic of Tanzania	0.75	Nauru	
Cambodia	0.50	Niue	
Guinea	0.50	Oman	
Lao People's Democratic Republic	0.50	Palau	
Mali	0.50	Saint Kitts and Nevis	
Niger	0.50	Samoa	
Paraguay	0.50	San Marino	
Sierra Leone	0.50	Solomon Islands	
Lebanon	0.25	Somalia	
Libya	0.25	South Sudan	
Afghanistan	0.00	Syrian Arab Republic	
Iraq	0.00	Tonga	
Andorra		Turkmenistan	
Barbados		United Arab Emirates	
Bhutan		Venezuela (Bolivarian Republic of)	
Brunei Darussalam		Yemen	

* For overall country scores marked by (.) there are insufficient data.

	2020					
Country	Absolute price	Affordability change	Tax share	Tax structure	Overall score	
Afghanistan	0	0	0.0	0	0.00	
Albania	3	0	3.5	5	2.88	
Algeria	3	5	0.5	1	2.38	
Andorra		0*	5.0	4		
Angola	2	5	0.0	2	2.25	
Antigua and Barbuda	3	0	0.0	0	0.75	
Argentina	2	5	4.0	2	3.25	
Armenia	2	0*	0.5	5	1.88	
Australia	5	4	4.0	1	3.50	
Austria	3	0	3.5	3	2.38	
Azerbaijan	1	0	1.5	1	0.88	
Bahamas	5	1	1.0	4	2.75	
Bahrain	5	5	3.5	2	3.88	
Bangladesh	1	5	3.5	1	2.63	
Barbados		0				
Belarus	0	0	2.0	1	0.75	
Belgium	4	2	4.0	3	3.25	
Belize	2	0	0.0	4	1.50	
Benin	1	0*	0.0	2	0.75	
Bhutan	5		0.0			
Bolivia (Plurinational State of)	2	0	0.5	1	0.88	
Bosnia and Herzegovina	4	3	4.5	3	3.63	
Botswana	5	5	1.5	5	4.13	
Brazil	1	0*	3.0	4	2.00	
Brunei Darussalam						
Bulgaria	3	0*	4.5	4	2.88	
Burkina Faso	1	3	0.5	2	1.63	
Burundi	1	0	0.5	4	1.38	
Cabo Verde	2	0	0.0	4	1.50	
Cambodia	0	0*	0.0	2	0.50	
Cameroon	1	3	0.5	4	2.13	
Canada	5	4	3.0	5	4.25	
Central African Republic		0				
Chad	1	0	1.5	4	1.63	
Chile	3	4	4.5	4	3.88	
China	1	0*	1.5	1	0.88	
Colombia	1	5	3.5	4	3.38	
Comoros	0	0	4.0	2	1.50	
Congo	1	5	0.0	2	2.00	
Cook Islands		0				

	2020						
Country	Absolute price	Affordability change	Tax share	Tax structure	Overall score		
Costa Rica	3	0	2.0	4	2.25		
Croatia	3	0*	4.5	3	2.63		
Cuba		0					
Cyprus	3	0	3.5	3	2.38		
Czechia	3	3	4.0	3	3.25		
Côte d'Ivoire	1	0*	0.0	2	0.75		
Democratic People's Republic of Korea			0.0	0			
Democratic Republic of the Congo	0	0	1.5	2	0.88		
Denmark	4	0	4.0	4	3.00		
Djibouti		0					
Dominica	1	0	0.0	4	1.25		
Dominican Republic	5	0	0.5	4	2.38		
Ecuador	5	5	3.5	5	4.63		
Egypt	1	0	5.0	1	1.75		
El Salvador	3	1	1.5	3	2.13		
Equatorial Guinea Eritrea	1	1	0.0	1	0.75		
Estonia	3	0	5.0	4	3.00		
Eswatini	3	0	2.0	5	2.50		
Ethiopia	1	0	2.0	3	1.50		
Fiji	5	5	0.5	1	2.88		
Finland	4	4	4.5	3	3.88		
France	5	4	4.5	3	4.13		
Gabon	1	0	0.0	2	0.75		
Gambia	1	4	1.5	4	2.63		
Georgia	2	4	4.5	4	3.63		
Germany	4	2	2.5	4	3.13		
Ghana	1	0	0.0	2	0.75		
Greece	4	3	4.5	4	3.88		
Grenada		0*					
Guatemala	2	0*	1.5	2	1.38		
Guinea	0	0	0.0	2	0.50		
Guinea-Bissau		0		2			
Guyana	1	0	0.0	. 4	1.25		
Haiti	I	U		+	1.20		
Honduras	. 2	3	0.5	5	2.63		
Hungary	4	0	3.5	4	2.88		
Iceland	4	0	1.5	4	2.88		
IUGIAIIU	4	0	1.0	+	2.00		

			2020		
Country	Absolute price	Affordability change	Tax share	Tax structure	Overall score
India	4	0	2.0	1	1.75
Indonesia	3	3	2.5	1	2.38
Iran (Islamic Republic of)	2	5	0.0	1	2.00
Iraq	0	0	0.0	0	0.00
Ireland	5	0	4.5	4	3.38
Israel	4	0	4.5	3	2.88
Italy	4	0	4.0	3	2.75
Jamaica	5	3	0.5	4	3.13
Japan		0	3.0	4	
Jordan	3	5	4.5	1	3.38
Kazakhstan	1	3	2.5	4	2.63
Kenya	2	0	0.5	1	0.88
Kiribati	2	0	1.0	4	1.75
Kuwait		1	0.0	0	
Kyrgyzstan	2	5	2.0	5	3.50
Lao People's Democratic Rep	oublic 1	0*	0.0	1	0.50
Latvia	3	0	4.5	4	2.88
Lebanon	1	0	0.0	0	0.25
Lesotho	3	0	1.5	5	2.38
Liberia	1	5	2.5	4	3.13
Libya	1	0	0.0	0	0.25
Lithuania	4	2	3.5	4	3.38
Luxembourg	3	0	3.5	3	2.38
Madagascar	1	0	4.5	2	1.88
Malawi	0	0	2.5		
Malaysia	5	0	2.0	4	2.75
Maldives	5	1	2.0	0	2.00
Mali	1	0	0.0	1	0.50
Malta	4	0	4.5	4	3.13
Marshall Islands		0	1.0	0	
Mauritania	1	0	0.0	2	0.75
Mauritius	4	0	4.5	4	3.13
Mexico	3	0	3.5	3	2.38
Micronesia (Federated States		1	1.0	0	
Monaco		•			
Mongolia	1	0	1.5	4	1.63
Montenegro	3	4	4.5	3	3.63
Morocco	2	0	4.5	4	2.63
Mozambique	1	4	0.0	5	2.50
Myanmar	1	0	2.0	1	1.00

	2020						
Country	Absolute price	Affordability change	Tax share	Tax structure	Overall score		
Namibia	4	0	0.5	5	2.38		
Nauru		1	0.5	0			
Nepal	3	0	0.0	1	1.00		
Netherlands	4	0	4.0	4	3.00		
New Zealand	5	4	4.5	5	4.63		
Nicaragua	5	0	3.5	5	3.38		
Niger	0	0*	0.0	2	0.50		
Nigeria	1	0	1.0	3	1.25		
Niue			1.5	0			
North Macedonia	2	3	4.5	4	3.38		
Norway	5	3	2.5	4	3.63		
Occupied Palestinian territory	5	0	5.0	4	3.50		
Oman		5	3.0	2			
Pakistan	1	0	2.5	1	1.13		
Palau		3	4.5	4			
Panama	4	0*	2.5	2	2.13		
Papua New Guinea	4	0	2.0	1	1.75		
Paraguay	0	0	0.0	2	0.50		
Peru	3	5	3.5	5	4.13		
Philippines	2	5	2.5	5	3.63		
Poland	4	0*	4.0	3	2.75		
Portugal	3	0*	4.0	4	2.75		
Qatar	5	5	3.5	2	3.88		
Republic of Korea	2	0	4.0	4	2.50		
Republic of Moldova	2	3	2.5	4	2.88		
Romania	5	0*	3.5	4	3.13		
Russian Federation	3	5	2.0	5	3.75		
Rwanda	1	0	2.5	3	1.63		
Saint Kitts and Nevis		0*					
Saint Lucia	2	1	1.5	4	2.13		
Saint Vincent and the Grenadir	nes 2	0	0.0	4	1.50		
Samoa		3	1.5	4			
San Marino		0					
Sao Tome and Principe	1	0	0.0	4	1.25		
Saudi Arabia	5	5	3.0	2	3.75		
Senegal	1	0	0.5	2	0.88		
Serbia	3	3	4.0	3	3.25		
Seychelles	5	4	3.5	4	4.13		
Sierra Leone	0	0	0.0	2	0.50		
Singapore	5	0	4.0	4	3.25		

			2020		
Country	Absolute price	Affordability change	Tax share	Tax structure	Overall score
Slovakia	3	0	4.0	4	2.75
Slovenia	3	0	4.5	4	2.88
Solomon Islands		0			
Somalia	0		0.0	0	
South Africa	3	0	1.5	5	2.38
South Sudan		0	2.5	2	
Spain	3	0	4.5	3	2.63
Sri Lanka	5	4	4.5	1	3.63
Sudan	1	0*	4.0	2	1.75
Suriname	4	5	0.0	4	3.25
Sweden	3	0	3.0	5	2.75
Switzerland	3	0	3.0	4	2.50
Syrian Arab Republic			0.5	2	
Tajikistan	1	0	0.5	4	1.38
Thailand	2	0	4.0	1	1.75
Timor-Leste	2	0	0.0	4	1.50
Тодо	1	4	0.5	2	1.88
Tonga		5	4.0	1	
Trinidad and Tobago	3	4	0.0	4	2.75
Tunisia	1	0	3.0	3	1.75
Turkey	4	0	4.5	3	2.88
Turkmenistan		5	0.5	2	
Tuvalu	2	1	0.5	2	1.38
Uganda	1	3	0.0	1	1.25
Ukraine	2	5	3.0	4	3.50
United Arab Emirates		5	3.0	2	
United Kingdom of Great Brita and Northern Ireland	in 5	3	4.5	5	4.38
United Republic of Tanzania	2	0	0.0	1	0.75
United States of America	3	0	1.0	4	2.00
Uruguay	2	4	3.0	4	3.25
Uzbekistan	1	3	2.5	1	1.88
Vanuatu	2	0	2.0	4	2.00
Venezuela (Bolivarian Republi		1	4.0	т	2.00
Viet Nam	1	0*	1.0	2	1.00
Yemen		5	1.0	4	1.00
Zambia	1	0	0.5	4	1.38
Zimbabwe	2	0	0.0	3	1.30
ZIIIDADWE	2	U	0.0	3	1.20

* For overall country scores marked by (.) there are insufficient data.

Country	Overall score			
	2014	2016	2018	2020
Afghanistan	0.00	0.25	0.25	0.00
Albania	2.88	3.00	2.25	2.88
Algeria	0.63	2.13	2.25	2.38
Andorra				
Angola	0.50		0.50	2.25
Antigua and Barbuda	0.75	0.25	0.25	0.75
Argentina	1.75	2.25	3.50	3.25
Armenia	0.75	0.88	1.13	1.88
Australia	4.13	4.25	4.63	3.50
Austria	3.13	3.00	2.50	2.38
Azerbaijan	0.75	3.00	0.63	0.88
Bahamas	3.63	3.75		2.75
Bahrain	0.75	1.25	3.75	3.88
Bangladesh	0.88	1.13	1.38	2.63
Barbados	2.63	2.63	2.13	
Belarus	0.63	0.63	0.63	0.75
Belgium	3.50	3.25	3.25	3.25
Belize	0.38	1.38	1.50	1.50
Benin	0.75	0.75	0.75	0.75
Bhutan				
Bolivia (Plurinational State of)	0.88	1.13	0.88	0.88
Bosnia and Herzegovina	3.38	3.63	3.88	3.63
Botswana	2.38	2.13	2.38	4.13
Brazil	1.63	2.88	2.13	2.00
Brunei Darussalam				
Bulgaria	2.88	2.63	2.88	2.88
Burkina Faso	0.50	0.50	1.63	1.63
Burundi	1.38	1.38	1.38	1.38
Cabo Verde	0.75	0.75	0.75	1.50
Cambodia	0.50	0.50	0.50	0.50
Cameroon		0.75	0.75	2.13
Canada	3.25	3.13	3.75	4.25
Central African Republic	0.75		0.88	
Chad	0.75	2.00	2.25	1.63
Chile	2.38	2.75	3.63	3.88
China	0.88	1.00	1.00	0.88
Colombia	1.63	1.63	2.38	3.38
Comoros	1.13	1.13	0.88	1.50
Congo	0.88	1.13	2.13	2.00
Cook Islands				

Country	Overall score			
	2014	2016	2018	2020
Costa Rica	3.13	2.13	2.13	2.25
Croatia	3.50	3.25	2.50	2.63
Cuba				
Cyprus	3.88	3.88	2.38	2.38
Czechia	3.63	3.38	3.25	3.25
Côte d'Ivoire	0.50	0.75	0.75	0.75
Democratic People's Republic of Korea				
Democratic Republic of the Congo	0.50	0.50	0.63	0.88
Denmark	3.38	2.63	2.63	3.00
Djibouti		0.50		
Dominica	1.25	1.25	1.25	1.25
Dominican Republic	2.38	2.38	2.38	2.38
Ecuador	3.63	4.75	4.38	4.63
Egypt	2.63	2.63	2.75	1.75
El Salvador	2.00	2.00	1.88	2.13
Equatorial Guinea	0.50	0.75	0.75	0.75
Eritrea				
Estonia	3.63	2.88	2.88	3.00
Eswatini		2.38	2.25	2.50
Ethiopia	0.75	0.50	0.50	1.50
Fiji	1.50	1.75	2.75	2.88
Finland	3.38	3.38	3.63	3.88
France	3.63	3.63	3.63	4.13
Gabon	0.75	0.75	0.75	0.75
Gambia	2.88	2.88	2.88	2.63
Georgia	0.88	1.38	1.63	3.63
Germany	2.63	2.88	2.88	3.13
Ghana	0.75	0.75	0.75	0.75
Greece	4.13	3.88	3.88	3.88
Grenada	1.38	1.38	1.13	
Guatemala	1.63	1.38	1.38	1.38
Guinea		0.50		0.50
Guinea-Bissau		0.75	0.75	
Guyana	0.75	0.75	1.75	1.25
Haiti				
Honduras	2.88	2.25	1.75	2.63
Hungary	3.75	3.88	2.88	2.88
Iceland	3.50	2.50	2.50	2.38
India	1.13	2.38	1.63	1.75
Indonesia	1.25	1.38	1.63	2.38

Country	Overall score			
	2014	2016	2018	2020
Iran (Islamic Republic of)	0.00	1.00	0.50	2.00
Iraq	0.00	0.00	0.00	0.00
Ireland	3.25	3.25	3.25	3.38
Israel	3.63	3.88	3.63	2.88
Italy	3.50	2.50	3.25	2.75
Jamaica	2.63	2.88	3.13	3.13
Japan	2.50	1.50	1.50	
Jordan	2.38	2.63	3.38	3.38
Kazakhstan	1.38	2.63	2.75	2.63
Kenya	1.13	1.63	0.88	0.88
Kiribati	2.00	1.75	1.75	1.75
Kuwait	0.50	0.75	0.75	
Kyrgyzstan	0.63	0.63	2.88	3.50
Lao People's Democratic Republic	0.50	1.25	0.50	0.50
Latvia	2.75	2.88	2.88	2.88
Lebanon	1.50	1.50	0.63	0.25
Lesotho	2.38		2.13	2.38
Liberia		0.50	0.50	3.13
Libya	0.75	0.50	0.25	0.25
Lithuania	2.50	2.75	3.38	3.38
Luxembourg	3.38	2.38	2.38	2.38
Madagascar	1.88	2.13	1.88	1.88
Malawi	2.75			
Malaysia	2.50	2.75	2.88	2.75
Maldives	1.00	0.75	1.50	2.00
Mali	0.50	0.50	0.50	0.50
Malta	2.88	3.13	3.13	3.13
Marshall Islands	0.63	0.50	0.50	
Mauritania	1.00	0.75	0.75	0.75
Mauritius	3.63	2.63	3.25	3.13
Mexico	2.88	2.13	2.13	2.38
Micronesia (Federated States of)	0.63	0.88	0.75	
Monaco				
Mongolia	2.13	1.75	1.63	1.63
Montenegro	3.63	3.38	3.88	3.63
Morocco	1.63	1.63	2.38	2.63
Mozambique	1.00	0.25	0.50	2.50
Myanmar	1.38	0.75	0.63	1.00
Namibia	1.88	2.00	2.00	2.38
Nauru		1.25	1.25	

Country	Overall score			
	2014	2016	2018	2020
	0.75	4.00	1.00	4.00
Nepal	0.75	1.00	1.00	1.00
Netherlands	3.88	3.88	3.13	3.00
New Zealand	4.63	4.75	4.38	4.63
Nicaragua		1.63	1.88	3.38
Niger	0.75	0.88	0.50	0.50
Nigeria	0.75	0.75	0.75	1.25
Niue				
North Macedonia	2.13	2.38	2.88	3.38
Norway	3.75	3.75	3.63	3.63
Occupied Palestinian territory	4.38	3.38	3.38	3.50
Oman	0.50	0.75	0.75	
Pakistan	0.88	2.25	0.88	1.13
Palau		2.88	3.88	
Panama	2.13	2.13	2.13	2.13
Papua New Guinea	1.13	1.63	1.50	1.75
Paraguay		0.50	0.50	0.50
Peru	1.38	3.13	3.63	4.13
Philippines	1.25	2.50	3.75	3.63
Poland	4.13	3.75	2.75	2.75
Portugal	3.88	2.88	2.88	2.75
Qatar	0.50	0.75	0.63	3.88
Republic of Korea	2.00	2.50	2.50	2.50
Republic of Moldova	0.88	1.13	1.38	2.88
Romania	4.50	3.13	3.38	3.13
Russian Federation	2.63	3.13	3.38	3.75
Rwanda	0.75	1.63	1.63	1.63
Saint Kitts and Nevis	2.00	1.00	1.00	
Saint Lucia	1.88	1.88	1.88	2.13
Saint Vincent and the Grenadines	2.00	1.25	1.75	1.50
Samoa	2.88	2.88	2.88	
San Marino				
Sao Tome and Principe	0.75	0.75	1.50	1.25
Saudi Arabia	0.75	1.25	3.75	3.75
Senegal	0.63	0.88	1.88	0.88
Serbia	3.63	3.63	3.88	3.25
Seychelles	3.38	3.13	3.13	4.13
Sierra Leone	0.25	0.00	1.50	0.50
Singapore	3.13	3.13	3.25	3.25
Slovakia	3.38	3.38	2.88	2.75
Slovenia	4.13	3.63	2.88	2.88

Country	Overall score			
	2014	2016	2018	2020
Solomon Islands	0.75	0.75	0.75	
Somalia				
South Africa	2.13	1.88	2.25	2.38
South Sudan				
Spain	3.88	2.63	2.88	2.63
Sri Lanka	2.38	2.13	3.38	3.63
Sudan	2.00	2.00	1.75	1.75
Suriname	2.63	3.25	3.63	3.25
Sweden	3.25	3.00	2.75	2.75
Switzerland	3.25	3.00	2.50	2.50
Syrian Arab Republic				
Tajikistan	0.50	0.50	2.38	1.38
Thailand	2.00	2.25	1.75	1.75
Timor-Leste	1.38	1.25	1.50	1.50
Тодо	0.50	0.75	0.75	1.88
Tonga	1.50	2.75	3.63	
Trinidad and Tobago	2.75	3.00	3.00	2.75
Tunisia	2.00	1.75	1.75	1.75
Turkey	3.63	2.88	2.88	2.88
Turkmenistan	2.00	2.00	3.00	
Tuvalu	0.75	1.25	1.00	1.38
Uganda	0.63	0.75	0.75	1.25
Ukraine	1.63	2.88	3.38	3.50
United Arab Emirates	0.50	0.75	3.50	
United Kingdom of Great Britain	0.00	2.00	4.00	4.00
and Northern Ireland	3.88	3.88	4.38	4.38
United Republic of Tanzania	0.75	0.50	0.50	0.75
United States of America	2.00	2.00	2.00	2.00
Uruguay	2.25	2.25	2.25	3.25
Uzbekistan	0.50	0.63	0.63	1.88
Vanuatu		2.25	2.13	2.00
Venezuela (Bolivarian Republic of)				
Viet Nam	0.75	0.88	0.88	1.00
Yemen				
Zambia	0.75	1.13	0.88	1.38
Zimbabwe	1.38	2.63	1.13	1.25

 * For overall country scores marked by (.) there are insufficient data.

2018 Score Updates

Countries with updates in their 2018 cigarette price or affordability change component scores are presented below. Since the overall score is the average of the four component scores, the overall scores for these countries have also been updated accordingly. Price scores are revised based on the updated cigarette price information in the most recent RGTE data (2021) and the GDP information from the World Bank database which was used for price adjustments. Affordability scores are revised using the updated affordability measures in the most recent RGTE data (2021).

Appendix Table 4 2018 Score updates

2018 price score updated

2018 affordability change score updated

Algeria Occupied Palestinian territory Antigua and Barbuda Oman Armenia Panama Bolivia (Plurinational State of) Papua New Guinea Bosnia and Herzegovina Qatar Republic of Moldova Bulgaria China Romania Saint Vincent and the Congo Grenadines Denmark Sao Tome and Principe Equatorial Guinea Serbia Finland South Africa Gabon Gambia Spain Sudan Georgia Suriname Greece Trinidad and Tobago India Ukraine Italy United Republic of Tanzania Lebanon Uruguay Madagascar Uzbekistan Maldives Zambia Nauru Zimbabwe Nicaragua Niger North Macedonia

Bangladesh Belarus

Comoros Congo Cyprus Czechia Eritrea Guyana Kazakhstan Nepal New Zealand Samoa Senegal **Timor-Leste** Yemen Zimbabwe

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