Sophia Delipalla[1], Fatimah El-Awa[2], Asmus Hammerich[2], Anne-Marie Perucic[3] and Sophia El-Gohary [2]

[1]Department of Balkan, Slavic and Oriental Studies, School of Economics and Regional Studies, University of Macedonia, Thessaloniki, Greece. [2]Universal Health Coverage/Noncommunicable Diseases and Mental Health, WHO Office for the Eastern Mediterranean, Cairo, Egypt (Correspondence to S El-Gohary: elgoharys@who.int).
[3]
Fiscal Policies for Health Unit, Department of Health Promotion, WHO Headquarters, Geneva, Switzerland.

[1] S smuggling and illicit trade; C court and legal challenges; An anti-poor rhetoric and regressivity; R revenue reduction; E employment impact

Abstract

Background: In 2016, the 6 Gulf Cooperation Council (GCC) countries agreed to implement a harmonized excise tax on tobacco products, at a rate of 100% of the pretx price. Saudi Arabia was the first country to implement it.

Aims: To evaluate the impact of implementation of cigarette taxation on consumer prices, affordability and substitution possibilities in Saudi Arabia, the United Arab Emirates (UAE) and Bahrain. To assess the weaknesses of the tax system and discuss how they can be addressed in future reforms.

Methods: We measured progress regarding implementation of the tobacco tax and evaluated its effectiveness. We examined the impact of the excise tax on cigarette pice, price dispersion, and affordability, based on secondary data reported to WHO by the countries concerned.

Results: Saudi Arabia, UAE and Bahrain, which implemented the excise tax in 2017, were faced with sharp increases in cigarette prices and a total tax share > 70% of the final retail price. Affordability and dispersion indices improved, implying that cigarettes became less affordable over time and smokers had fewer opportunities to switch to cheaper brands. The

recent introduction of a minimum excise tax was another step in the right direction.

Conclusion: Despite the progress made regarding tobacco tax reform, there is still room for improvement. The tax system has some weaknesses that can easily be addressed in future reforms, otherwise long-term responses by both smokers and the tobacco industry will negate the current progress.

Keywords: tobacco taxation, tobacco pricing, excise tax, affordability, Gulf Cooperation Council

Citation: Delipalla S, Delipalla S, Hammerich A, Perucic A, El-Gohary S. The impact of tobacco tax implementation on price of tobacco products in Saudi Arabia, United Arab Emirates and Bahrain. East Mediterr Health J. 2024;30(x):xxx–xxx. https://doi.org/10.26719/emhj.24.020.

Received: 12/04/2023, Accepted: 15/01/2024

Introduction

Since 2002 and until 2016, the Gulf Cooperation Council (GCC) countries [Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates (UAE)] relied solely on import duties (1). This comprised a duty of 100% of the cost, insurance and freight value applied to all tobacco products, together with a minimum duty (whichever was highest). In 2016, the minimum import duty was doubled in all GCC countries except Kuwait.

In 2016, the GCC countries agreed to implement harmonized excise taxes to reduce consumption of products harmful to human health (such as tobacco and sugar-sweetened beverages) and the environment, as well as on luxury goods to raise additional revenue by

taxing wealthy individuals. The WHO Regional Office for the Eastern Mediterranean has been working with the GCC countries since 2008 to address tobacco-related health problems and provide support regarding tax implementation and other tobacco control measures (2). The harmonized excise tax on tobacco products was set at a rate of 100% of the pretax price (3). The excise tax was first introduced in Saudi Arabia in June 2017, and the UAE and Bahrain followed in October and December, respectively. Qatar and Oman implemented the excise tax in January and June 2019, respectively. Kuwait is expected to follow suit in 2023/24 (4). In 2017, the GCC countries agreed to impose value added tax (VAT) at a standard (tax-exclusive) rate of 5% and a reduced rate of 0% (5). Saudi Arabia was the first to implement VAT in January 2018 and, in July 2020, it tripled its standard tax rate to 15%. The UAE implemented VAT in January 2018, Bahrain in January 2019 and Oman in April 2021. Bahrain doubled its standard VAT rate effective from January 2022 (6), Qatar is still preparing for its implementation (7) and Kuwait plans to introduce VAT in 2023/24 (4).

The introduction of the excise tax in 2017 and VAT in 2018 had a greater effect on the tobacco market than doubling import duty in 2016. The available data show both quantitative and qualitative effects 8). After tax implementation, legal sales dropped in Saudi Arabia and the UAE, but for Bahrain, no data are provided after 2017. The volume of imports fell and smokers substituted cheaper brands. In Saudi Arabia, the premium brands have been affected the most (8). Plain packaging, together with strong promotional activity and gift-giving options, facilitated substitution towards cheaper brands. Trading down has also occurred in the UAE, with the most common shift being from the mid-priced to economy brands (8).

Establishing the effect of tobacco taxation on consumer behaviour in recent years has been difficult because of a combination of factors. The price increase resulting from taxation policies, combined with the economic uncertainty surrounding the COVID-19 pandemic and increased health concerns, is expected to have made tobacco consumers more price sensitive. Tax increases and pandemic response measures, such as shutting down of international borders, along with closures and restrictions on trade and opening hours, have led some tobacco users to reduce consumption (especially among social smokers); some might have traded down to cheaper brands or other tobacco products; and some (probably those with strongest nicotine addiction) might have stockpiled in response to fear of shortages. The introduction of plain packaging in Saudi Arabia in 2019 might have also affected tobacco consumption.

The tax reforms and the pandemic forced tobacco companies to find strategies to maintain their market share, ensuring constant availability of their brands and positioning them at the right point of the price distribution. When VAT tripled in 2020 in Saudi Arabia, the industry introduced new brands positioned at the low end of the price distribution, reassessed the price of existing brands, and extended its portfolio by introducing novel tobacco products (8).

In this study, we evaluated the impact of tobacco tax implementation on consumer prices, affordability and substitution possibilities in Saudi Arabia, the UAE and Bahrain. We assessed the weaknesses of the tax system and discussed how they could be addressed in future tax reforms. Otherwise, long-term responses by both smokers and the tobacco industry will negate the current progress. For comparison, we also looked at cigarette prices, price dispersion and affordability in Kuwait; a country that levies only an import duty and no excise tax on tobacco products.

Methods

To measure progress regarding tobacco tax implementation and its effectiveness, we examined its impact on cigarette price level, price dispersion and affordability. For such a task, the availability of relevant and reliable data is paramount. Unfortunately, until recently, the GCC countries lacked good practices for systematic data collection and dissemination. The only available data on the tobacco industry were those provided by international consultancies.

Our evaluation of the impact of excise tax implementation on cigarettes in Saudi Arabia, the UAE and Bahrain was based on open-source secondary data reported to WHO by the countries concerned. WHO collects on a biennial basis global information on the price level and applicable statutory taxes on cigarettes. The data are collected through a survey tool from national government officials, upon which WHO standardizes the data so that it is comparable across countries (9). The estimates are then shared with countries for sign-off before they are made public. For the purpose of this evaluation, a simple descriptive analysis involving tabulation of the secondary WHO data on cigarette excise taxes, price levels, price dispersion, and affordability in the selected countries was conducted.

Results

Impact of excise tax impact on price level

In all GCC countries, the price (international dollars at Purchasing Power Parity, PPP$) of the most-sold cigarette brand rose sharply after 2016, with the highest increase in Saudi Arabia and the lowest in Kuwait (Figure 1) (10). Saudi Arabia implemented both an excise tax and VAT, and the latter was tripled 2 years after its introduction. Kuwait did not implement either type of tax.

In 2020, the average price, weighted by the number of current smokers, of the most-sold brand in 54 high-income countries was PPP$8.94 and the corresponding total tax was PPP$6.04 (10). The average total tax share was 67.6% of the pack price of the most sold brand. In the GCC

countries, the total tax share ranged from 18.91% in Kuwait to 73.84% in Saudi Arabia. Figure 2 depicts the price and tax level of the most-sold brand, as well as the total tax share in the final price in 2020, in Saudi Arabia, the UAE and Bahrain, as well as Kuwait for comparison.

Given the implementation of the excise tax and the current VAT rate of 15%, it is not surprising that Saudi Arabia had the highest cigarette price and tax share for the most-sold brand. Figure 3 compares the structure of cigarette taxation in the 4 GCC states.

Note that all taxes (import duty, excise and VAT) are of the ad valorem type and set as a percentage of the price before tax (tax-exclusive rate). Therefore, tobacco companies have a strong incentive to register a lower cost, insurance and freight and distribution price, making the final sales price vulnerable to manipulation by the tobacco industry.

Impact of excise tax on price dispersion and affordability

To evaluate the effectiveness of tobacco taxation, we used the dispersion index and affordability index. The price dispersion index captured the relative price: the price of the cheapest brand as a percentage of the price of the most expensive brand (□ 100). An increase in the index indicated that the price gap between the cheapest and most expensive brand decreased; therefore, smokers had fewer opportunities to substitute downwards (10). Figure 4 depicts the price of the premium and cheapest brands in 2020 in Saudi Arabia, the UAE, Bahrain and Kuwait. The price of the cheapest brand was substantially lower than the price of the most expensive brand in all countries. In 2020, the price dispersion index for Saudi Arabia was 50%, which means that the price of the most expensive brand was double that of the cheapest brand. In the UAE, the price dispersion index was 54.76% and the price of the most expensive brand was 1.83 times higher than that of the cheapest brand. In Bahrain, the dispersion index was the lowest (34.78%) and the price of the most expensive brand was 2.88 times higher than that of the cheapest brand. Smokers had an incentive to switch to cheaper brands in all countries. In Kuwait, the dispersion index was low, as was the price of premium and low economy brands (10).

The second measure was the cigarette affordability index, which is the amount required to buy 100 cigarette packs (or 2000 cigarettes) of the most-sold brand as a percentage of per capita Gross Domestic Product (GDP) in a specific year. Affordability indices can be used for comparison among countries and within the same country over time. Among countries, a higher index indicates that cigarettes are more expensive in relation to income. For a specific country, an increase in affordability index over time indicates that cigarettes have become less affordable, and consumption is discouraged (10). During 2010–2020, cigarettes became less affordable in all countries of interest, with the highest growth rate (15.38%) taking place in Saudi

Arabia (10). In 2020, the affordability index was 3.81% in Saudi Arabia and only 1.27% in Kuwait. The affordability index increased for all countries between 2010 and 2020, with the highest increase in Saudi Arabia and the lowest in Kuwait (Figure 5). The total cost of smoking and secondhand smoke in Kuwait was KWD481 million in 2017, which was equivalent to 1.43% of its GDP and the highest among the 6 GCC countries (11). Even though cigarettes have become less affordable over the last few years, affordability was higher relative to the rest of the world. This was likely a significant contributor to the Eastern Mediterranean Region being the only WHO region with (observed and predicted) increased male smoking prevalence (12).

Discussion

Saudi Arabia was the first GCC country to implement both excise taxation and VAT on tobacco products, and the rate of VAT was tripled within 2 years of its introduction. These reforms brought Saudi Arabia closer to the top-performing countries for tobacco control (13). Saudi Arabia, the UAE and Bahrain, which implemented the excise tax in 2017, were faced with sharp price increases, with the highest increase taking place in Saudi Arabia. In all 3 countries, total tax share was > 70% of the final retail price, with this share, again, being highest in Saudi Arabia.

Even though the dispersion and affordability indices improved in all 3 countries, Saudi Arabia performed better for both measures. This means that smokers have fewer opportunities to switch to cheaper brands, and cigarettes have become less affordable, with the increasing trend in affordability index being highest in Saudi Arabia.

However, there is room for improvement. The tax system has some weaknesses that can easily be addressed in future tax reforms. Otherwise, long-term responses by smokers and the tobacco industry will negate the current progress. The main limitation is the tax structure. Import duty and excise tax are both based on the pre-tax (i.e., ex-factory) price and, apart from the misleading impression of imposing a high rate, this provides the industry with the incentive to misdeclare its cost, insurance and freight values and distribution prices, or to import or introduce new, cheaper brands. It also leads to greater variability in prices, providing opportunities of trading down to cheaper brands when prices rise because of taxation. In general, structures that rely on ad valorem taxes are more difficult to administer and susceptible to industry manipulation. A change in the tax structure, involving the introduction of a specific excise component, would increase both prices and the tax share, redirecting revenues from industry to government. This would decrease price variability and opportunities for tax avoidance and evasion. The recent introduction of a minimum excise tax was a step in the right direction. The minimum excise tax must be regularly adjusted for inflation and income growth. Increasing the VAT rate further will bring it closer to the Organization of Economic Cooperation and Development (OECD) average. The average VAT is 19.3% in OECD countries and 21.8% in the 22 OECD countries that are also members of the EU (14).

Based on data availability, we discuss the challenges arising from excise tax implementation in Saudi Arabia and the UAE. One of the SCARE tactics of the tobacco industry is to exaggerate the size of the illicit tobacco trade when tax rate increases and structure reforms are announced (15). The industry centres attention around tax or price differentials as the main determinant of illicit trade, and not on the fact that this is enabled by weak governance and social norms, as well as poor tax and customs administration. The extent to which countries enable illicit trade in tobacco (and in general) depends on: government policies (monitoring and prevention); the market conditions that may encourage supply and demand of illicit tobacco products; and the trade and customs environment, including governance over free trade zones.

The Global Illicit Trade Environment Index is used to evaluate the structural capability of economies to inhibit illicit trade; that is, effectiveness of laws, regulations and governance (16). According to the Index, the Middle East and Africa region ranks last, mainly because it scores low in the categories of supply and demand, and transparency and trade. This means the countries do not exploit their full potential to combat illicit trade, including strengthening of tax and customs administration. Saudi Arabia ranks 50th and the UAE 34th among 84 countries (16). The only category in which the UAE ranks worse than Saudi Arabia is transparency and trade. This is a result of the free trade zones in the country. Free trade zones facilitate trade and economic growth but also illicit trade, because of weak infrastructure, weak enforcement and corruption.

Until 2016, the difference between total (imports minus exports, which were all re-exports because there was no domestic cigarette production) and legal sales of cigarettes was constant, but the gap widened after that (8). Irrespective of the accuracy of the Euromonitor data, tax increases tend to create opportunities for gains from illicit transactions. Therefore, it is advised that tax increases should be accompanied by reforms that strengthen the tax and customs administration, enforcement and judiciary system, as well as regional and international collaboration and agreements on information sharing and customs cooperation.

To the best of our knowledge, 3 cross-sectional studies have investigated the impact of excise tax implementation on cigarette consumption, as well as the socioeconomic and health factors associated with smoking behaviour (17–19). Two of these studies were conducted in Riyadh and 1 in Jeddah, Saudi Arabia. The data were self-reported and hence subject to recall and social desirability bias. They depended on participants' recall and honesty, which were especially important in a traditional and conservative society. Regardless of the accuracy of the method, however, and although the results cannot be generalized to the whole country, the studies still provide some clear policy guidance. Tax-induced price increases may have only short-term effects on consumption; hence, sizeable and continuous tax increases are required

to combat smoking. What matters is a continuous and significant reduction in cigarette affordability, and optimizing tax structure is important for eliminating trading down to cheaper alternatives.

More studies and other methods are needed to assess the long-term impact of tax implementation on price and consumption of tobacco products. The benefits of reduction in tobacco use for human health and the environment have been discussed elsewhere (9). Primary data on cigarette sales and prices by brand, and for a longer period, are needed to conduct more reliable studies on the impact of tax. Countries and implementers of prevention programmes are encouraged to allocate resources to collect more detailed data and make these publicly available to provide a database to evaluate programme effectiveness. Lack of local knowledge when interpreting the data from international consultancies used in our evaluation may lead to misleading measurements and unreliable progress reports and policy evaluations. We need data on the use of all tobacco product alternatives, to conduct an economic analysis regarding the extent to which new and emerging products are considered substitutes for conventional cigarettes.

Conclusions and recommendations

The main barrier to evaluating the impact of excise tax on the price of tobacco products in the GCC countries was the lack of data. In the GCC countries, there is a gap between health and tax economics researchers and policy-makers that needs to be bridged (20). The GCC countries must build up systematic data collection and measurement capabilities, as well as dissemination strategies, to avoid misleading measurements and unreliable progress reports. The establishment of a tobacco economics research centre is urgently needed to facilitate comprehensive and consistent collection of data, and enhance collaboration between government agencies, academia, researchers and policy-makers. National health surveys must take place regularly, using the same methodology and time period for all surveys and across all GCC countries. Given current data limitations, our descriptive analysis serves to clarify the importance of tobacco taxation as a tool for public policy.

The main limitation of the tobacco tax system is its structure. Import duty and excise tax are based on pre-tax price and, apart from the misleading impression of imposing a high rate, this provides the industry with the incentive to misdeclare its cost, insurance and freight values and distribution prices, or to import or introduce new, cheaper brands. It also leads to greater variability in prices, providing opportunities of trading down to cheaper brands, when prices rise after taxation. A change in tax structure, involving the introduction of a specific excise component, would increase both prices and tax share, redirecting revenues from industry to government. It would also decrease price variability and opportunities for tax avoidance and evasion. The minimum excise needs to be automatically adjusted for inflation (of importance in periods of persistently rising inflation) and income growth. Finally, increasing the VAT rate

further will bring it closer to the OECD average and increase price and total tax share.

Continued collaboration among the GCC countries, based on the WHO Framework Convention on Tobacco Control provisions, to ensure a harmonized pricing system for all tobacco products, is necessary to reduce premature mortality from noncommunicable diseases and meet the target of a 30% reduction in tobacco use by 2030.

Figures

References

1. General Secretariat of the Gulf Cooperation Council. Gulf Customs Union. Unified customs tariff for GCC states. Oman: GCC Statistical Center; 2017 (https://gccstat.org/ar/statistic/standards/gcc-cet-2017, accessed 9 February 2024).

2. WHO Regional Office for the Eastern Mediterranean. Tobacco excise duties in countries of the Gulf Cooperation Council. Cairo: WHO Regional Office for the Eastern Mediterranean; 2016 (https://www.emro.who.int/images/stories/tfi/documents/tobacco_excise_duties_in_gcc_2016.pdf?ua=1, accessed 9 February 2024).

3. General Secretariat of the Gulf Cooperation Council (GCC). The Unified Selective Tax Agreement for the Arab Gulf Cooperation Council Countries. General Secretariat of the GCC; 2016 (https://zatca.gov.sa/ar/RulesRegulations/Taxes/Documents/GCC_Unilateral_Agreement_for_Excise_Tax_Arabic.pdf, accessed 28 February 2024).

4. BDO. Update on Kuwait budget and VAT in Kuwait [website]. BDO; 2022 (https://www.vatupdate.com/wp-content/uploads/2021/08/2021-08-13-Update-on-Kuwait-budget-and-VAT-in-Kuwait.pdf, accessed 9 February 2024).

5. General Secretariat of the Gulf Cooperation Council (GCC). Common VAT Agreement of the States of the Gulf Cooperation Council. General Secretariat of the GCC; 2017 (https://zatca.gov.sa/ar/RulesRegulations/Taxes/Documents/GCC%20VAT%20Agreement.pdf,

accessed 4 March 2024).

6. PwC Middle East. VAT rate increase in Bahrain [website]. PwC Middle East; 2021 (https://www.pwc.com/m1/en/services/tax/me-tax-legal-news/2021/vat-rate-increase-in-bahrain-sep-2021.html, accessed 9 February 2024).

7. KPMG. Announcement of the Qatar VAT law expected in 2024. KPMG; 2023 (https://kpmg.com/qa/en/home/insights/2019/02/tnf-qatar-vat-regime-expected-2020.html, accessed 9 February 2024).

8. Euromonitor International. Tobacco in Saudi Arabia [website]. Euromonitor; 2021

(https://www.euromonitor.com/tobacco-in-saudi-arabia/report?recid=2785055506415, accessed 28 February 2024)

9. World Health Organization. WHO global report on tobacco epidemic 2021: Addressing new and emerging products. Geneva: WHO; 2021 (https://www.who.int/publications/i/item/9789240032095, accessed 9 February 2024).

10. World Health Organization. WHO report on the global tobacco epidemic, 2023: protect people from tobacco smoke. Geneva: WHO; 2023 (https://www.who.int/publications/i/item/9789240077164#, accessed 9 February 2024).

11. Koronaiou K, Al-Lawati JA, Sayed M, Alwadey AM, Alalawi EF, Amutawaa K et al. Economic cost of smoking and secondhand smoke exposure in the Gulf Cooperation Council Countries. Tob Control 2021 Nov;30(6):680–6. PMID:32817575 https://doi.org/10.1136/tobaccocontrol-2020-055715

12. Gordon MRP, Perucic A-M, Totanes RAP. Cigarette affordability in the Eastern Mediterranean Region. East Mediterr Health J. 2020 Jan 30;26(1):55–60. PMID: 32043546.

https://doi.org/10.26719/2020.26.1.55

13. Chaloupka F, Drope J, Siu E, Vulovic V, Mirza M, Rodriguez-Iglesias G et al. Tobacconomics cigarette tax scorecard (2nd ed.). Chicago: Tobacconomics; 2021.

14. Organization of Economic Cooperation and Development (OECD). Consumption tax trends 2022 – VAT/GST and excise. Core design features and trends [website]. Paris: OECD Centre for Tax Policy and Administration; 2022 (https://www.oecd.org/tax/consumption-tax-trends-19990979.htm, accessed 9 February 2024).

15. World Health Organization. WHO technical manual on tobacco tax policy and administration. Geneva: WHO; 2021 (https://www.who.int/publications/i/item/9789240019188, accessed 9 February 2024).

16. Economist Intelligence Unit (EIU). The Global Illicit Trade Environment Index. A report by the Economist Intelligence Unit. EIU; 2018.

(https://impact.economist.com/projects/deliver-change/documents/EIU-Global-Illicit-Trade-Environment-Index-2018-FTZ-June-6-FINAL.pdf, accessed 26 February 2024).

17. Abu-Shaheen A, Altannir Y, Altannir M. Tobacco price increase and consumption behaviour among male smokers in Riyadh: a community-based study. East Mediterr Health J. 2020 Dec 9;26(12):1518–24. PMID:33355391

https://doi.org/10.26719/emhj.20.066

18. Aljuaid SO, Alshammari SA, Almarshad FA, Almutairi KS, Aljumayi AS, Al Khashan HI et al. Taxation and tobacco plain packaging effect on Saudi smokers quitting intentions in Riyadh city, Saudi Arabia, Saudi Med J. 2020 Oct;41(10):1121–9. PMID:33026054 https://doi.org/10.15537/smj.2020.10.25390

19. Alghamdi A, Fallatah A, Okal F, Felemban T, Eldigire M, Almodaimegh H. Smoking behaviour after enforcement of a 100% tax on tobacco products in Saudi Arabia: a cross-sectional study. East Mediterr Health J. 2020 Jan 30;26(1):39–46. PMID:32043544 https://doi.org/10.26719/2020.26.1.39

20. Almazrou SH, Ajaujan SS, Al-Aqeel SA. Barriers and facilitators to conducting economic evaluation studies of Gulf Cooperation Council (GCC) countries: a survey of researchers. Health Res Policy Sys 2021;19:71. https://doi.org/10.1186/s12961-021-00721-1