

# Effects of tobacco products taxes on consumption in Türkiye

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## Abstract

**Background:** Tobacco products taxes are a source of revenue for governments, but more importantly a strategy to reduce consumption of tobacco products and their associated health risks.

**Aim:** To investigate how tobacco products taxes have altered tobacco use in Türkiye.

**Methods:** This retrospective study collected data published between 2010 and 2023 on tobacco and tobacco products in Türkiye, including tobacco products taxes imposed by the government. Data analysis was performed using SPSS version 22.0 and correlation analysis was conducted to determine the relationship between domestic cigarette and fine-cut tobacco sales.

**Results:** Between 2010 and 2023, excise taxes on tobacco products varied between 19.2% and 34.2%. Consumer spending on fine-cut tobacco products per capita increased 42 694.6 folds due to an increase in the consumer price index. The annual number of cigarettes consumed per capita increased from 1266 in 2010 to 1609 in 2023 and fine-cut tobacco consumption per capita increased from 0.0037 g/year in 2010 to 106.8139 g/year in 2023. These increases in cigarette and fine-cut tobacco sales were attributed partly to population growth and a shift from cigarette consumption to fine-cut tobacco products consumption.

**Conclusion:** Although the main tobacco product consumed in Türkiye is industrial cigarettes, increasing the prices increased interest in fine-cut tobacco. Therefore, the production of cigarettes from fine-cut tobacco above the legal estimates reduced the effect of the tax on cigarette consumption. The taxation system needs to be reformed to prevent the effect of such alternatives.

Keywords: tobacco, fine-cut tobacco, excise tax, revenue, smoking, cigarette, consumption, Türkiye

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## Introduction

There is convincing and reliable evidence that tobacco use or exposure to tobacco smoke significantly increases the likelihood of developing noncommunicable disease such as cardiovascular disease, cancer, chronic respiratory disease and diabetes (1). The use of tobacco products is a risk factor for higher morbidity and mortality associated with these diseases (2). In 2021, the worldwide mortality attributable to tobacco consumption surpassed 7.2 million, with > 1.2 million resulting from exposure to secondhand tobacco smoke (3).

Reducing tobacco consumption can effectively decrease the occurrence of tobacco-related morbidity, mortality, social impact, environmental damage and healthcare costs (4). Therefore, eliminating tobacco consumption means ending its harmful effects. WHO recommends implementation of 6 tobacco control strategies (MPOWER) that aim to deter tobacco use (5). One such strategy is to reduce access to low-cost tobacco products by increasing their prices through additional taxes (1). The resulting decrease in demand is then expected to contribute to the protection of public health. Therefore, excise tax is used to increase the prices of tobacco products. Imposing high taxes on tobacco products appears to be a source of revenue for

governments. In 2019, Austria generated €1.89 billion, Germany €14.24 billion, France €12.60 billion, and the United States of America US\$31.97 billion in excise tax revenue (6).

In Türkiye, tobacco-attributable deaths increased to > 85 000 in 2021, in line with the global trend, with > 18 000 of these deaths attributed to secondhand smoke (3). Health surveys in Türkiye (7) have shown that the number of everyday smokers increased in 2019 (28.0%) and 2022 (28.3%) compared to 2016 (Figure 1). A 2022 survey shows that 41.3% of males and 15.5% of females used tobacco products daily. Peer influence ranked first among factors influencing smoking initiation (31.9%), followed by curiosity (23.8%) and a desire to adapt to the peer group (23.2%) (7).

Efforts to combat tobacco products in Türkiye started with the enactment of the "Prevention of Harmful Effects of Tobacco Products Law" (8), which came into force in 1996 and gained significant momentum in the mid-2000s. The law prescribes administrative fines for anyone who smokes in closed public places and violates anti-advertising laws, as well as imprisonment for anyone who sells tobacco products to children under the age of 18 years (8). The process of converting fine-cut tobacco into cigarette by wrapping it in cigarette paper or filling an

empty cigarette filter tube and then selling it is explicitly prohibited (9). Regulations have been enacted to prohibit the manufacture of cigarette filter tubes and cigarette paper that are used for smoking fine-cut tobacco (10). The Presidential Decree banned the production and import of new-generation tobacco products such as heated tobacco products and electronic cigarettes (11). However, traditional tobacco products, such as cigarettes, water pipe tobacco, fine-cut tobacco, pipe tobacco, cigars and cigarillos, are exempt from this prohibition (12).

Türkiye implemented its MPOWER strategy in the following order: monitor tobacco use and prevention policies in 2007 (or previously in 2006); protect people from tobacco smoke in 2008; offer help to quit tobacco use in 2010; warn about the hazards of tobacco in 2012; enforce bans on tobacco advertising, promotion and sponsorship in 2012; and raise taxes on tobacco in 2002 (2). Various studies have been conducted on the consumption of tobacco products in Türkiye. Between January 2005 and April 2015, cigarette sales were reduced through taxes and regulations, and the price and income elasticities of cigarette demand were significantly higher than previously (13). The Global Adult Tobacco Survey reported that the prevalence of tobacco use in Türkiye showed a significant decrease in almost all demographic subgroups between 2008 and 2012, but it largely returned to 2008 levels in 2016 (14). Another study found that cigarette manufacturers encouraged consumption and increased their profits through product diversification and price adjustments (15).

There are 2 main taxes applied to tobacco products in Türkiye: excise tax and value added tax (VAT). Excise tax is levied on cigarettes, fine-cut tobacco, pipe tobacco, water-pipe tobacco, cigars, cigarillos and cigarette filter tubes (10). There are 3 different types of excise tax on tobacco products (10): (1) relative excise tax (X) is rate (ad valorem); (2) lump-sum excise tax is a fixed amount; and (3) minimum lump-sum excise tax is a fixed amount (Y). Two of the 3 types of excise tax are used to calculate the total excise tax for tobacco products. First, X is calculated, then Y, and whichever of these is higher is added to lump sum excise tax to calculate the total. Calculations are made in units of 1 pack of cigarettes and 50 g for other tobacco products.

This study aimed to investigate how Türkiye's high tax policy, which was implemented as a discouragement, altered the use of tobacco products.

## Methods

This was a retrospective and descriptive study of tobacco products taxes between 2010 and 2023. There were no key performance indicators; therefore, indirect parameters were developed to evaluate the results of high tax policies applied to tobacco products. Anti-tobacco policies were based on existing laws and other regulations. Fine-cut tobacco started to be taken under government control in 2009 (12); therefore, 2010 was chosen as the starting point of the study.

Data on tobacco, tobacco products and their related values in Turkish lira and US dollars were obtained from the Department of Tobacco and Alcohol (12); excise tax rates were obtained from Revenue Administration Presidency (17); amounts of excise tax collected were obtained from the General Directorate of Accounting (18); and population statistics (16) and consumer price index (19) were obtained from the Turkish Statistical Institute. Current cigarette prices were converted from Turkish lira to US dollars according to the daily exchange rate of the Central Bank of the Republic of Türkiye on 16 September 2024.

All statistical analyses were carried out on data published from 2010 to 2023. The suitability of variables for normal distribution was investigated graphically and with the Shapiro–Wilk test. Contracted and noncontracted tobacco production, quantities of imported and locally produced products, the price per ton of imported tobacco, and the cost of domestic tobacco were compared using an independent samples *t* test. A regression model was established to determine how many cigarettes could be produced from 1 kg of tobacco. In this model, cigarettes produced were the dependent variable and net tobacco quantity was the independent variable. Net tobacco quantity was calculated by adding the amounts of domestic and imported tobacco in the same year and subtracting the amount of tobacco exported in the same year from this total. Correlation analysis was conducted to determine the relationship between domestic cigarette and fine-cut tobacco sales.  $P < 0.05$  was accepted as an indicator of significance. The study data were organized in Microsoft Excel and data analysis was performed using SPSS version 22.0.

The study was conducted on publicly available secondary data; therefore, there was no need for ethics committee approval.

## Results

Despite the decrease in tobacco cultivation, Türkiye is an important player in global tobacco production. Tobacco leaves are grown with or without contract with the tobacco industry. Between 2010 and 2023, contract farmers were responsible for growing  $65\,530\,830.7 \pm 11\,229\,064.5$  kg of tobacco, representing 85.6% of the total domestic output. The difference between the amounts of tobacco leaves grown with or without a contract was significant ( $t = 13.788$ ;  $P < 0.001$ ).

During the period of study, the amount of imported tobacco ( $95\,658\,132.6 \pm 16\,340\,870.9$  kg) was significantly higher than the amount of domestically grown tobacco ( $76\,522\,644.9 \pm 14\,747\,070.2$  kg) ( $t = 3.253$ ;  $P = 0.003$ ). The average amount of tobacco exported annually was  $59\,296\,412 \pm 10\,424\,021$  kg. The average revenue per metric tonne of exported tobacco was US\$6016.5  $\pm$  1003.3, whereas the average cost per metric tonne of imported tobacco was US\$5386.2  $\pm$  464.1. The difference between imported and exported tobacco was significant ( $t = 5.408$ ;  $P < 0.001$ ). During the period of study, there was no import

of tobacco products other than leaf tobacco, cigars and cigarillos.

Consumer spending on fine-cut tobacco products per capita increased from "0.0009 (Turkish lira) in 2010 to "38.4251 in 2023, a 42 694.6-fold increase (Table 1). From 2010 (US\$216.3116; "326.1121) to 2023 (US\$141.8242; "3373.5), cigarette expenditure per capita increased in Turkish lira and decreased in US dollars. The reason for this was the increase in the consumer price index. Therefore, it would be more accurate to make a comparison based on the amount of tobacco products consumed. The annual number of cigarettes consumed per capita increased from 1266 in 2010 to 1609 in 2023, a 1.3-fold increase, while fine-cut tobacco consumption per capita increased from 0.0037 g/year in 2010 to 106.8139 in 2023, a 28 868.6-fold increase. Correlation analysis was performed to determine the relationship between cigarette and fine-cut tobacco consumption per capita. There was a strong relationship in the same direction ( $r = 0.807$ ,  $P < 0.001$ ). The slope of cigarette and fine-cut tobacco sales over the years was higher than the slope of population growth (Figure 1). These results provide evidence that the increases in cigarette and fine-cut tobacco sales resulted from population growth and increased consumption.

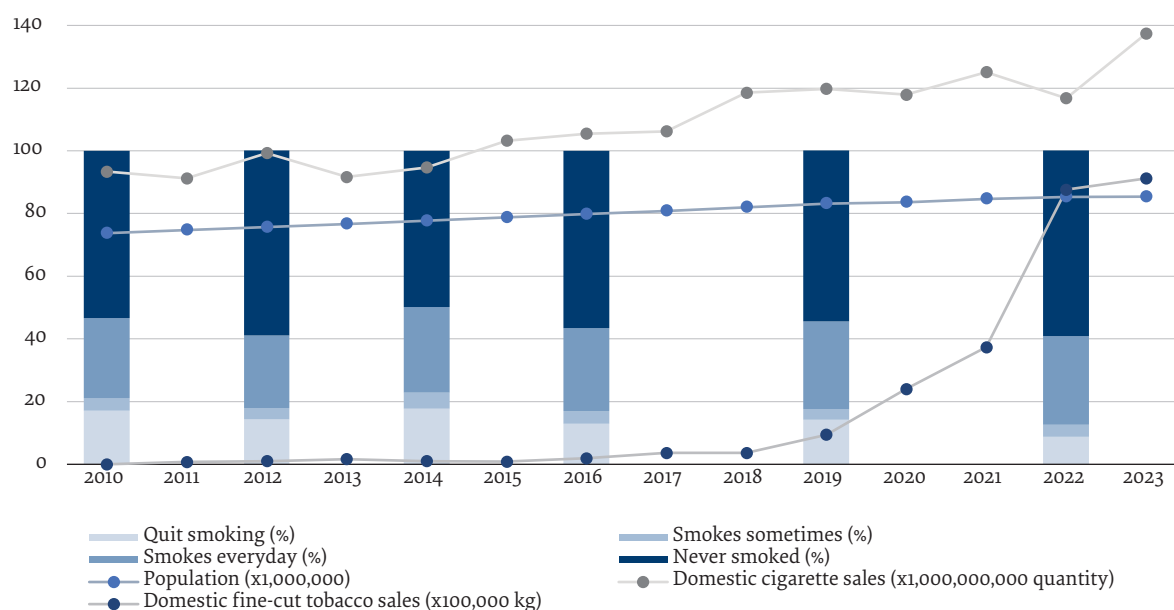
Table 2 shows the calculation of taxes on a pack of 20 cigarettes with a sales price of "74 (US\$2.1764) and a pack of fine-cut tobacco (100 g) with a sales price of "165 (US\$4.8527). The total tax burden on these tobacco products with average sales prices was 80.71% and 74.02%, respectively. From 2010 to 2023, the excise tax on tobacco products varied between a peak rate of 34.2% and a minimum rate of 19.2% within the total excise tax. The tax burden on cigarettes with a sales price of "64 (US\$1.8823) was 82.35%, while the tax burden on cigarettes with a sales price of "89 (US\$2.6175) was 78.93%. This revealed a higher tax burden on cigarettes with lower sales prices.

A regression model (adjusted  $R^2 = 0.963$ ,  $F = 363.450$ ,  $P < 0.001$ ) was established in which cigarette production was the dependent variable and net tobacco quantity was the independent variable. According to the model, 1272.3 ( $t = 19.064$ ,  $P < 0.001$ , 95% confidence interval: 1128.1–1416.5) industrial cigarettes could be produced from 1 kg of tobacco, and 1 industrial cigarette consisted of 0.79 g of tobacco. When tax was applied to fine-cut tobacco, it was considered that 1 g was enough to make 1 cigarette (10, 20). It has been reported that 1300–1400 cigarettes (65–70 packs) can be obtained from 1 kg of fine-cut tobacco and the weight of 1 cigarette was 0.70–0.75 g (interquartile range: 0.51–1.20 g) (20). With this calculation, 100 g of fine-cut tobacco purchased for "165 (US\$4.8527) could be converted into 6.7 packs (127.23 pieces) of cigarettes. If 6.7 packs of industrial cigarettes, which have an average price of "74 (US\$2.1763), were to be purchased, it would cost "495.8 (US\$14.5817).

Table 1 Tobacco products consumption, revenue, sales ratio, and excise tax ratio, Türkiye, 2010–2023

Year	Per capita yearly cigarette sales (pieces/yr) <sup>a,b</sup>	Per capita yearly cigarette sales <sup>a</sup> ₺	Per capita yearly cigarette sales <sup>a</sup> \$	Per capita fine-cut tobacco yearly sales (g/yr) <sup>a,b</sup>	Per capita fine-cut tobacco yearly sales ₺	Per capita fine-cut tobacco yearly sales \$	Cigarette sales (%) <sup>a,d</sup>	Tobacco products excise tax/total excise tax (%) <sup>c</sup>	Tobacco products excise tax/total revenue (%) <sup>c</sup>	Change in consumer price index (annual change) (%) <sup>b</sup>
2010	1266	326.11	216.31	0.00	0.00	0.00	99.9	25.8	7.0	6.4
2011	1221	329.19	196.17	1.02	0.10	0.06	99.9	24.7	6.2	10.5
2012	1312	404.46	224.56	1.32	0.13	0.07	99.9	27.9	7.2	6.2
2013	1196	425.81	223.47	2.14	0.24	0.13	99.9	25.0	6.5	7.4
2014	1219	445.65	203.32	1.32	0.15	0.07	99.9	25.3	6.5	8.2
2015	1311	503.53	184.79	1.08	0.12	0.04	99.9	25.5	6.6	8.8
2016	1322	600.77	198.49	2.40	0.23	0.08	99.9	26.8	7.0	8.5
2017	1314	692.57	189.52	4.51	0.44	0.12	99.9	27.1	7.0	11.9
2018	1446	764.31	158.50	4.40	0.45	0.09	99.8	31.9	6.9	20.3
2019	1440	928.30	163.40	11.36	1.35	0.24	99.7	34.2	7.5	11.8
2020	1410	1066.45	151.88	28.70	3.25	0.46	99.5	29.8	7.4	14.6
2021	1477	1190.57	133.75	44.11	5.68	0.64	99.3	32.9	5.8	36.1
2022	1369	1879.91	113.29	102.71	24.74	1.49	98.5	24.1	4.3	64.3
2023	1609	3373.51	141.82	106.81	38.43	1.62	98.6	19.0	3.9	64.8

Source: <sup>a</sup>Department of Tobacco and Alcohol (12); <sup>b</sup>Turkish Statistical Institute (16, 19); in December (change compared to the same month in previous year); <sup>c</sup>General Directorate of Accounting (18); <sup>d</sup>Monetary percentage of domestic cigarette sales in total sales of tobacco products.

**Figure 1** Population, cigarette and fine-cut tobacco sales and use in Türkiye, 2010–2023

Source: Department of Tobacco and Alcohol (12), Turkish Statistical Institute (7, 16).

## Discussion

Türkiye was the first country to fulfil the WHO MPOWER strategies at the highest level (21). The implementation of these strategies initially tended to reduce tobacco consumption significantly (13, 14). Although there have been increases and decreases in cigarette consumption, there has been a significant increase in fine-cut tobacco consumption since 2017. If smuggled tobacco products that cannot be detected are added, tobacco consumption will exceed expectations and render all basic measures of control invalid by bypassing and weakening them (22).

Contracts establish a dependency of farmers on the tobacco industry while simultaneously guaranteeing a consistent provision of raw materials for the corporations. Cigarette production and, consequently, tobacco trade in Türkiye are largely dependent on imports. The cigarette industry has rationalized its production facilities and turned Türkiye into a cigarette production base by reducing the cost of tobacco and adjusting net prices according to market conditions (15).

The tobacco industry can argue that tobacco performs a dual role in the economy by creating employment through agriculture and contributing to general economic growth (23). In 2022, US\$8.01 billion was spent on cigarette advertising and promotional marketing (24) and over US\$240 billion was spent on health issues related to smoking in the United States of America in 2018 (25). Given the detrimental effects of tobacco on human health, it is obvious that the benefits claimed for tobacco do not actually have a significant impact. Alternative use of the money spent to compensate for the damage caused by tobacco products would contribute more to the economy.

Despite having one of the highest tax rates in Europe, tobacco products are still easy to obtain in Türkiye (1, 17). An average price per pack of cigarettes carries a tax burden of

> 80%. Previous studies have shown that higher cigarette prices reduced consumption, and spikes in tobacco taxes lowered the prevalence of smoking (26, 27). Higher taxes led to a decrease in smoking among adolescents, and this relationship showed little variation according to gender, socioeconomic status or race/ethnicity (28). Some studies have provided evidence that increasing taxes on tobacco products may not reduce cigarette consumption; it may instead lead smokers to switch to cheaper options (29, 30). Tax asymmetry has resulted in a significant increase in the market share of fine-cut tobacco, which was linked to the lack of quantity-based minimum tax applied to fine-cut tobacco products (31).

Consumption of fine-cut tobacco seems to be more affordable than industrial cigarettes. A study in Türkiye in 2018 reported that slim and super-slim cigarettes, which were introduced to the market as an innovative approach, contained less tobacco and were consumed more (15). In accordance with the previous study, the regression model established in this study found that the amount of tobacco in industrial cigarettes is below the legally prescribed amount. People with high incomes consume more cigarettes, and those with low incomes tend to consume fine-cut tobacco. Package specifications and contents of fine-cut tobaccos and cigarettes offered for sale must be regulated, inspected and taxed more strictly and equally. Otherwise, anti-tobacco policies may fail as a result of the adjustments made by the tobacco industry.

Difficulties may arise during the implementation of policies. In 2008, as a component of MPOWER, the law was amended to impose fines on smokers and businesses that allow smoking in enclosed spaces (8). The authority to impose fines, and any revenue collected, were given to local governments. However, the reluctance of local governments to impose fines meant that the desired



**Table 2** Taxation on cigarettes and fine-cut tobacco (taxation update, 14 September 2024)

Tax calculation	Cigarettes (1 pack)		Fine-cut tobacco (g)	
	₺	US\$	₺	US\$
(A) Sale price (average market price)	"74	US\$ 2.18	"165	\$4.85
(B) Per package	20 cigarettes		100 g	
(C) Proportional excise tax rate	53.5%		55%	
(D) Value added tax (VAT) rate	20%		20%	
(E) Minimum lump sum excise tax	"1.70	US\$ 0.05	"0.21	\$0.01
(F) Total proportional excise tax: A x C	"39.59	US\$ 1.16	"90.75	\$2.670
(G) Total minimum lump sum excise tax: B x E	"34.05	US\$ 1.00	"21.31	\$0.63
(H) Lump sum excise tax <sup>a</sup>	"7.80	US\$ 0.23	"3.88 <sup>a</sup>	\$0.11
(I) VAT: sale price – (sale price/1.2)	"12.33	US\$ 0.36	"27.50	"0.81
(J) VAT rate on the sales price of cigarette pack sold	16.7%		16.7%	
Total tax sum of one package: F+H+I	"59.72	US\$ 1.77	"122.13	\$3.59
Total tax rate	80.7%		74.0%	

US\$1 = ₺34.00 (16 September 2024, Turkish Central Bank). <sup>a</sup>Whichever is greater than F or G is used in the calculation. <sup>\*</sup>Per 50 g multiplied by 1.94  
Source: Ministry of Treasury and Finance 2015 (10); Revenue Administration Presidency 2024 (17).

outcome could not be achieved. In 2012, the authority to impose fines was transferred to central government. According to a study evaluating MPOWER strategies, Türkiye, one of the 2 countries with full implementation along with Brazil, ranked 16th with a score of 24 in 2008 and second with a score of 34 in 2018 (32).

## Conclusion

Although the main tobacco product consumed in Türkiye is industrial cigarettes, increasing prices have increased interest in fine-cut tobacco. The high number of cigarettes that can be obtained from a pack of fine-cut tobacco reduces the effect of taxation and is an important alternative to industrial cigarettes due to its cheapness. However, high taxation of tobacco products should be a policy aimed at reducing affordability of these products. The price increases caused by high taxes increase consumption of cheaper alternative tobacco products unless balanced and rational taxation is implemented among different tobacco products (31). Policymakers should maintain high taxation on tobacco products, but they should also create regulations that prevent the industry from implementing practices that invalidate these taxes. Taxes on fine-cut tobacco should be reviewed and increased to provide balance with other products.

There is a complex network of relationships in the regulation of the tobacco trade. Factors influencing anti-tobacco policies are generated by different interest groups from the cultivation, distribution, processing, sale and consumption of tobacco. Anti-tobacco policies often and inadequately focus on sales and consumption. To maximize the efficacy of tobacco control measures in achieving their intended results, it is imperative to identify and eliminate the factors that impede the implementation of these policies. Government bodies, through macropolicies, should address this danger not only from their own perspective, but as a problem to be eliminated in cooperation with other government bodies. It may of course be the Ministry of Finance's task to impose taxes on tobacco, but this does not remove the responsibility of the Ministry of Health and Ministry of Education from efforts to reduce consumption, nor would it be the responsibility of the Ministry of Agriculture alone to encourage tobacco farmers to switch to other products needed by society.

If a policy does not achieve the desired results, either there are factors that influence the policy but have not been considered, or the policy is failing; also, it can be difficult to distinguish between unaccounted factors and policy failure (33).

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**Competing interests:** None declared.

## Effets des taxes appliquées aux produits du tabac sur leur consommation en Türkiye

### Résumé

**Contexte :** Les taxes sur les produits du tabac constituent une source de revenus pour les gouvernements, mais surtout une stratégie visant à réduire la consommation de ces produits et les risques sanitaires qui y sont associés.

**Objectif :** Étudier comment les taxes sur les produits du tabac ont modifié leur consommation en Türkiye.

**Méthodes :** La présente étude rétrospective a permis de recueillir des données publiées entre 2010 et 2023 sur le tabac et ses produits en Türkiye, y compris les taxes imposées par le gouvernement sur ces articles. L'analyse des données a été réalisée à l'aide du logiciel SPSS version 22.0, et une analyse de corrélation a été effectuée pour déterminer le lien entre les ventes de cigarettes nationales et de tabac à coupe fine.

**Résultats :** Entre 2010 et 2023, les droits d'accise sur les produits du tabac variaient entre 19,2 % et 34,2 %. Les dépenses de consommation en produits de tabac à coupe fine par habitant ont augmenté 42 694,6 fois en raison d'une hausse de l'indice des prix à la consommation. Le nombre annuel de cigarettes consommées par habitant est passé de 1266 en 2010 à 1609 en 2023, et la consommation de tabac à coupe fine par habitant a augmenté de 0,0037 gramme par an à 106,8139 grammes par an sur la même période. Ces hausses des ventes de cigarettes et de tabac à coupe fine ont été attribuées en partie à la croissance démographique et à une transition de la consommation de cigarettes vers celle de produits du tabac à coupe fine.

**Conclusion :** Bien que le principal produit du tabac consommé en Türkiye soit la cigarette manufacturée, l'augmentation des prix a accru l'intérêt pour le tabac à coupe fine. Par conséquent, la production de cigarettes à base de tabac à coupe fine excédant les estimations légales a atténué l'effet de la taxe sur la consommation de cigarettes. Une réforme du système fiscal est nécessaire afin de prévenir l'impact de telles alternatives.

### آثار الضرائب المفروضة على منتجات التبغ على الاستهلاك في تركيا

متين دينسر

### الخلاصة

الخلفية: تعتبر الضرائب المفروضة على منتجات التبغ أحد مصادر الإيرادات للحكومات، ولكنها أيضاً، وهو الأهم، تعتبر طريقة لزيادة أسعار التبغ من أجل خفض الاستهلاك، والحد من مخاطر التبغ ذات الصلة بالصحة.

الأهداف: هدفت هذه الدراسة إلى استقصاء كيف تغير الضرائب المفروضة على منتجات التبغ في استخدامها في تركيا.

طرق البحث: جمعت هذه الدراسة الاستراتيجية البيانات المنشورة عن التبغ ومنتجات التبغ في تركيا بين عامي 2010 و 2023، ولا سيما ضرائب منتجات التبغ التي تفرضها الحكومة. وحُللت البيانات بالإصدار 22.0 من برنامج SPSS، وأجري تحليل للارتباط لتحديد العلاقة بين مبيعات السجائر المحلية ومبيعات التبغ المفروك.

النتائج: بين عامي 2010 و 2023، تراوحت ضرائب البيع على منتجات التبغ بين 19.2٪ و 34.2٪. وازداد الإنفاق الاستهلاكي على منتجات التبغ المفروك للفرد الواحد 42,694.6 ضعفاً نتيجة ارتفاع مؤشر سعر المستهلك. وارتفع عدد السجائر التي يستهلكها الفرد سنوياً من 1266 سيجارة في عام 2010 إلى 1609 سجائر في عام 2023، وارتفع نصيب الفرد من استهلاك التبغ المفروك من 0.0037 غرام في السنة في عام 2010 إلى 106.8139 غرامات في السنة في عام 2023. وهذه الزيادات في مبيعات السجائر والتبغ المفروك قد عزّيت جزئياً إلى النمو السكاني، والتحول من استهلاك السجائر إلى استهلاك منتجات التبغ المفروك.

الاستنتاجات: على الرغم من أن السجائر الصناعية هي منتج التبغ الرئيسي الذي يجري استهلاكه في تركيا، فإن زيادة الأسعار زادت من الاهتمام والإقبال على التبغ المفروك. ولذلك، فإن إنتاج سجائر التبغ المفروك بنسبة أعلى من التقديرات القانونية يقلل من أثر الضريبة على استهلاك السجائر. ومن ثمَّ يجب إصلاح النظام الضريبي لتوفي أثر هذه البدائل.

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