



Vision For Alternative
Development
(VALD)

Economics
Of
Tobacco
Control
in Ghana
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**A Report
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VISION FOR ALTERNATIVE DEVELOPMENT

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Acronyms And Abbreviations

WHO	World Health Organization
FAO	Food and Agriculture Organization
FCTC	Framework Convention on Tobacco Control
CIF	Cost Insurance and Freight
GHS	Ghana Health Service
GSS	Ghana Statistical Service
GDHS	Ghana Demographic Health Survey
UN	United Nations
PPP	Purchasing Power Parity
PED	Price Elasticity of Demand
BAT	British American Tobacco
BATG	British American Tobacco Ghana
BATWCA	British American Tobacco West and Central Africa
ILO	International Labor Organization
CEPS	Customs Excise and Preventive Service
PAYE	Pay As You Earn
MTC	Meridian Tobacco Company
ITG	International Tobacco Ghana
SSNIT	Social Security and National Insurance Trust
PTC	Pioneer Tobacco Company
COPD	Chronic Obstructive Pulmonary Disease
ICU	Intensive Care Unit
GSA	Ghana Standards Authority
TCSG	Tobacco Control Survey in Ghana
VAT	Value Added Tax
COVID-19	Corona Virus Disease 2019
CHRL	COVID-19 Health Recovery Levy
JHS	Junior High School
GYTS	Global Youth Tobacco Survey
ECOWAS	Economic Community of West African States

Executive Summary

As many as 8 million lives are lost annually to tobacco use across the world, with the global economy suffering an economic burden of US\$1.4 trillion due to tobacco use. In Ghana, over 5,000 people die annually from tobacco use (about 6,639 deaths in 2019). The associated economic cost and burden of smoking is as much as GH¢97 million, making tobacco use a major public health threat in the country. This is particularly so in view of the fact that an estimated 804900 Ghanaians (15+ years) smoked cigarettes in 2015 on daily basis and the number of smokers is projected to reach 1.7 million by 2025. Although Ghana was one of the first African countries to have ratified the WHO FCTC in 2004, the country's implementation of the accompanying obligations is far from desirable. Indeed, until 2012 when the Public Health Act (Act 851) was enacted, the country did not have a comprehensive legislative document that regulated tobacco trade and usage. Moreover, not only has Act 851 not been fully enforced, but most people are not aware of the existence of the law and what the law entails. In addition, although the laws provided for the establishment of cessation centers at regional and district levels for persons addicted to tobacco who want to quit, this has not been implemented.

With the projected upward trajectory of tobacco use, the accompanying loss of lives, the economic burden and the weak enforcement of the tobacco control enactments, it is imperative to critically reflect on the economic aspects of tobacco control implementation in Ghana by undertaking relevant research to generate evidence to inform policy, and thus aid in the development, implementation, and evaluation of tobacco control measures. This study steps up to such a clarion call as it provides critical evidence to inform policies on public health and tobacco control (especially through taxation) to aid the achievement of the objectives of Ghana's Tobacco Control Act 2012 and the Tobacco Control Regulation 2016 (LI 2247) as well as Government's obligations under the WHO FCTC. The study makes use of secondary and primary data sources, with an extensive content analysis through the scanning of existing relevant data, in-depth review/study of relevant tobacco control documents, policy documents, and extensive review of literature on tobacco economics.

The study observes that tobacco use in Ghana is dominated by manufactured cigarettes, accounting for over 90% of tobacco products used in the country. Indeed, as many as 2.4 billion cigarettes (excluding illicit ones) were smoked annually on average between 2007 and 2015 in Ghana. The prevalence of tobacco-use in Ghana, although has declined in the past, is projected to surge. This surge is expected to be driven largely by males, the uneducated, the poor and rural dwellers. Ghana has a significant illicit tobacco market, constituting 20%-30% of the total market. Employment in the tobacco sector is on the decline, largely on the back of a decline in the real value of tobacco leaf production and the exit of BAT, a major employer in the industry and the largest buyer of tobacco leaf.

Ghana has 11 taxes on tobacco products, and the tax structure is ad valorem with CIF as the basis for determining the tax payable. While the tax rate (about 200% of CIF) is seemingly high compared to the rest of the sub-region, the tax structure is such that it has a very low tax proportion of the retail price. Ghana's tax share (either excise or total tax) is below the 70 – 75% recommended by the WHO. This is because of the ad valorem tax structure being used. It is therefore not farfetched that tax revenues from the tobacco industry have registered a moderate decline over the years.

A revision of the tobacco tax structure in Ghana and increased education on the hazards of tobacco use would go a long way to stem the tide of the prevalence of tobacco use in Ghana. This revision should consider re-introducing specific tax in addition to the ad valorem tax system.

Acknowledgment

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CHAPTER ONE

INTRODUCTION

The Need For This Study

Globally, tobacco use is one of the leading preventable causes of death, killing more than 8 million people yearly. Tobacco use also burdens the global economy each year with an estimated US\$ 1.4 trillion in health-care costs, lost productivity, fire damage, environmental harm from cigarette litter and destructive farming practices.

It has been estimated that, in 2015, on a daily basis, about 804900 Ghanaians (15+ years) smoked cigarettes, with about 780000 of them being males. Among children between ages 10 and 14 years, about 6000 smoked cigarettes in 2015. Although cigarette smoking remains the most common form of tobacco use, other tobacco products such as pipe smoking (shisha), chewing, sniffling, smokeless tobacco (e.g., tawa) exist in Ghana.

Tobacco use is a public health threat in Ghana considering that in 2016, 3.95% and 1.23% of male and female deaths respectively, were attributed to tobacco use, and the health burden may grow unless strong action is taken in tobacco control. Apart from the adverse effects of tobacco in terms of morbidity and mortality, tobacco use has possible welfare implications on the household since it has crowding-in and crowding-out effects on household expenditure in Ghana. Smokers spend less on household necessities such as food and education in order to pay for tobacco. The economic cost of smoking (direct costs related to health care expenditures and indirect costs related to lost productivity due to early mortality and morbidity) in Ghana has been estimated to amount to about GH¢97 million (US\$ Purchasing Power Parity (PPP) 123 million). This GH¢97 million excludes cost related to other aspects of tobacco use such as second hand smoking and the use of smokeless tobacco, suggesting that the total cost of tobacco use is huge.

Considering the huge burden that tobacco places on the Ghanaian economy, it is important to design and implement appropriate policies to curb its adverse effects. Consequently, a combination of tax, price and non-price measures have been proposed to reduce the demand and supply of tobacco, as outlined in articles 6-17 of the World Health Organization Framework Convention on Tobacco Control (WHO FCTC).

It is worth noting that Ghana was one of the first five African countries and the 39th country globally to become a party to the WHO FCTC. Ghana signed and ratified the WHO FCTC on 20th June 2003 and 29th November 2004, respectively. Despite the early ratification of the WHO FCTC in 2004, Ghana is yet to fully fulfil its obligations, as progress in implementing tobacco control measures has been slow. Meanwhile, the number of smokers in Ghana is expected to reach 1.7 million by 2025. It is therefore imperative to critically reflect on the economic aspects of tobacco control implementation in Ghana by undertaking relevant research to generate evidence to inform policy, and thus aid in the development, implementation, and evaluation of tobacco control measures. Thus, this comprehensive study on the Economics of Tobacco Control in Ghana is relevant and timely. As the tobacco industry aims to generate GB£1 billion in revenue from around the world, it becomes even more important for governments to enhance tobacco control measures to prevent smoking initiation and encourage cessation among current smokers.

Objectives And Scope Of The Study

This study on the economics of tobacco control in Ghana provides critical evidence for effecting tobacco-control-friendly tax policies that contribute to the objectives of the Public Health Act 2012 (Act 851) and the Government's obligations under the WHO FCTC. The scope of the study therefore covered aspects of the tobacco sector in Ghana in relation to its production, distribution, and consumption as well as an overview of tobacco taxation.

Methodology

Data Sources

The study made use of both secondary and primary data sources. For the secondary data, we conducted an extensive content analysis by scanning existing data, in-depth review/study of relevant tobacco control documents, and policy documents, as well as extensive review of literature on tobacco economics. The sources of data included Ghana Revenue Authority (GRA), Food and Agriculture Organization (FAO), United Nations Trade Database (UN Comtrade), and WHO among others.

The primary data involved consultations with relevant stakeholders such as GRA and the Food and Drugs Authority (FDA) and field visits to some cigarette shops. These consultations and visits provided a deeper understanding and contextualization of issues and information identified in the extensive content analysis or literature review. Photographs of cigarettes, for instance, were obtained from field visits.

Data Analysis

The study analyzed the quantitative data such as tax and quantity of tobacco consumed using graphs and percentages. The data were processed using Microsoft Excel. Qualitative data were presented in the form of pictures and, where appropriate, opinions of stakeholders.

Structure Of The Report

Following this introduction, the rest of the report is organized as follows: Chapter two looks at tobacco use in Ghana and provides information on the prevalence of smoking, profile of smokers and consumption patterns, while chapter three examines tobacco use and its impact on Ghana's economy. The chapter also provides the history of tobacco, key market players and employment statistics, among others, in Ghana. In chapter four, we look at tobacco control in Ghana, focusing on taxation as a preventive tool in the fight against tobacco use. The key findings, conclusions and recommendations for tobacco control are presented in chapter five.

CHAPTER TWO

Tobacco Use In Ghana

Introduction

This chapter provides information on tobacco use in Ghana. It details the profile of tobacco users, quantity consumed, and various forms of tobacco consumed. Tobacco has been consumed in Ghana for many years. Cigarettes are the most consumed type of tobacco. Other tobacco products consumed include leaf tobacco, cigar, waterpipe (shisha) and cheroots.

Who Consumes Tobacco Products In Ghana?

Compared to other countries, especially in Africa, the prevalence of tobacco use has remained low in Ghana. Tobacco use among population of 15 years or older declined from 5.6% in 2000 to 4.5% in 2005. By 2016, 4% of the population were using tobacco including cigarettes, with prevalence being 8% and 0.3% among males and females, respectively. Among young people (13 -15 years), the proportion that used any tobacco product (smokeless and smoking tobacco) declined from 14.4% in 2000 to 9% in 2017.

Over the last three and half decades, the proportion of the population using cigarettes reduced from 5.8% to 2.9%. Table 1 presents the prevalence rate of current cigarette smoking for selected years.

Table 1 : Prevalence Of Current Cigarette Smoking In Ghana

Year	1980	1996	2006	2012	2016
Male	10.2	10.2	8.4	8.2	5.7
Female	1.3	1.3	1.2	1.3	0.1
Both sexes	5.8	5.7	4.7	4.6	2.9

SOURCE: Ng. et al.¹⁵; WHO¹²

The prevalence of daily cigarette smoking among adults has also declined over the years. The percentage of the adult population that smoked cigarettes daily decreased from 8% in 2011 to 2.7% in 2017.ⁱ Thus, different tobacco indicators show that smoking is declining among the adult population.

In Ghana, low-income earners smoke more relative to the rich. For instance, 11.2% of male adults in the lowest income quintile smoked in 2014, while only 1.2% of their counterparts in the highest income group smoked (Table 2). Considering adults, the bottom 40% of the income distribution had 25% of smokers compared to about 7% in the top 40% of the income quintile.¹⁷

ⁱ Unless otherwise stated, prevalence is measured in percentages.

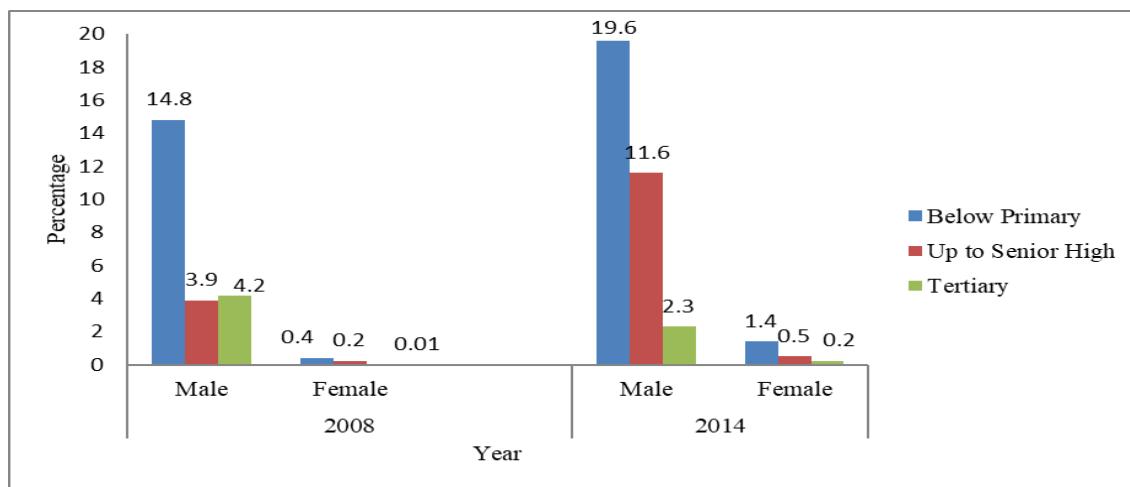
Table 2: Prevalence Of Cigarette Smoking By Wealth Quintile In Ghana

		Wealth quintiles				
Date		1 st	2 nd	3 rd	4 th	5 th
2003	Male	9.5	7.6	5.1	6.3	5.5
	Female	0	0	0	0	0.6
2008	Male	10.1	6.1	4.9	3.6	3.1
	Female	0.3	0.2	0.2	0.3	0
2014	Male	11.2	7.7	5.9	2.4	1.2
	Female	1.6	0.3	0.4	0.1	0

SOURCE: **Ghana Demographic and Health Survey (GDHS) ^{18 – 20}**

The above shows that smoking or tobacco use is concentrated among low-income earners, who are more likely to have no health insurance. Moreover, a worrying trend is emerging. The prevalence of smoking among less educated adults increased between 2008 and 2014 for both males and females (Figure 1).

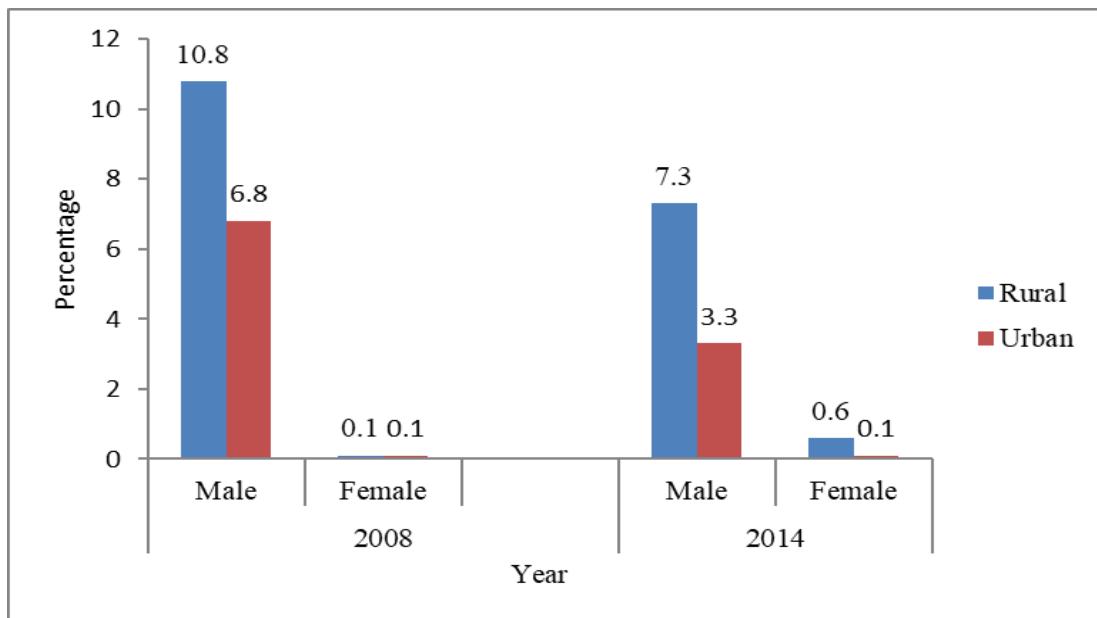
Figure 1 : Prevalence of cigarette smoking by education level in Ghana



SOURCE: **GDHS^{19 20}**

Tobacco use is a rural phenomenon in Ghana.¹⁷ This may be due to the lack of education on the harms of tobacco and the fact that it is affordable. However, while the proportion of male adults in rural areas that smoked declined between 2008 and 2014, the proportion of rural female adults that smoked increased from 0.1% to 0.6% over the same period (Figure 2).

Figure 2 : Tobacco Consumption Among Rural And Urban Adults In Ghana



SOURCE: Ghana Demographic and Health Survey (GDHS)^{18 – 20}

Available statistics also show regional differences in smoking prevalence, with higher prevalence of tobacco use among those living in Northern Ghana. The regions with the highest prevalence of tobacco use include Upper East (31.2%), Northern (22.5%) and Upper West (7.9%) regions.²¹

Prevalence of tobacco use also varies by age. It is prevalent among older people than young ones (people of age 24 years and below), especially in males (Table 3).

Table 3 : Proportion Of Ghanaian Adults Using Any Tobacco Product/pipe By Age Group

Age group (years)	Male (%)	Female (%)
15 – 19	1.1	0.1
20 – 24	3.1	0.3
25 – 29	8.4	0.2
30 – 34	6.8	0.3
35 – 39	6.5	0.3
40 – 44	9.0	0.7
45 +	12.3	1.3

SOURCE: GDHS²⁰

However, the use of cigarettes and other tobacco products by adults starts in adolescent years and because of the addictive nature of tobacco, they continue smoking in adulthood. Very few adults start using tobacco products after teenage years. The Global Tobacco Youth Survey (GTYS) conducted among Junior High School (JHS) students aged 13 to 15 years in 2017 shows that 9% of students used tobacco products, with 2% smoking cigarettes.¹³ The percentage of males and females who smoked cigarettes during the period were 3.2% and 2.3%, respectively. Indeed, the 2017 GTYS data revealed a decline in the use of tobacco

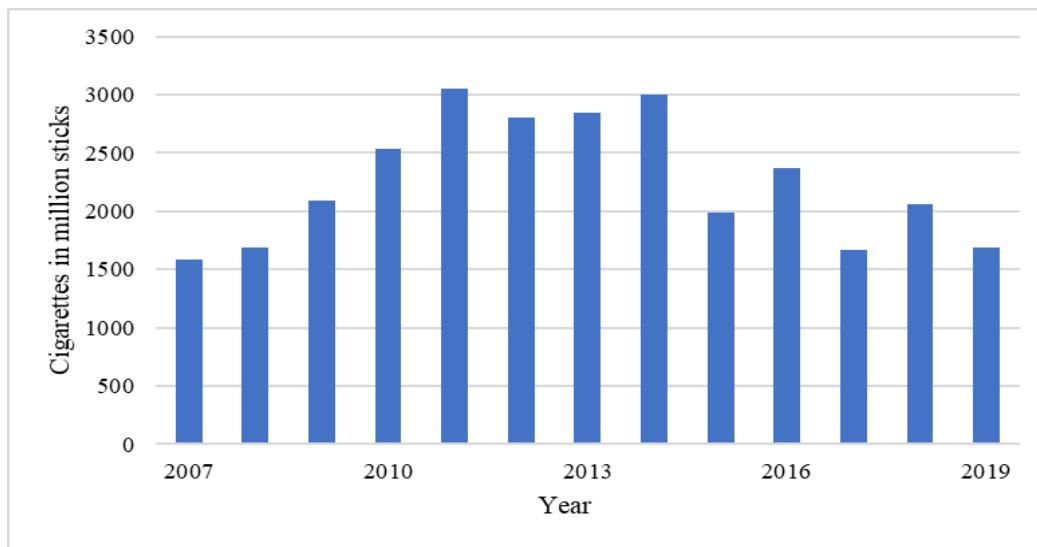
among Ghanaian adolescents, relative to previous years (2000-2009). In 2000, the GYTS found that 16.9% of adolescents in JHS used any tobacco product (boys = 16.2%, girls = 17.4%). It is interesting to note, however, that the GTYS data overtime (2000-2017) reveals an increase in the proportion of 13–15-year-old non-smokers who believe they might initiate smoking in the next year (12 months) if offered by a friend (from 14.8% in 2000 to 21.6% in 2017).^{13 14}

From the foregoing review, it is evident that tobacco use is concentrated among low-income earners, usually with low levels of formal education as well as rural dwellers.

Quantity Of Cigarettes Consumed

In 2019, the Cost, Insurance and Freight (CIF) value of all tobacco products imports was US\$12.4 million. Cigarettes constituted over 90% of this amount.²² Between 2007 and 2015, an average of 2.4 billion cigarettes were consumed annually.²³ It must be noted that this is tax-paid consumption which excludes illicit cigarettes. Figure 3 shows cigarette consumption for the period 2007–2019. The consumption is measured by total imports in kilograms and converted into sticks on the assumption that a cigarette weights 1 gram. Given that there is no production in Ghana, we assumed that all cigarettes imported are consumed in the country. This assumption is highly restrictive given that imports may be diverted to other countries.

Figure 3 : Cigarette Consumption In Ghana, 2007 – 2019



SOURCE: GRA²³

Figure 3 shows that, although cigarette consumption fell in some years, on average, it grew by 0.03% annually, between 2007 and 2019.

Quantity Of Other Tobacco Products Consumed

Aside cigarettes, cigars, cheroots, cigarillos, and other products such as waterpipe (also known as shisha) are also consumed in Ghana. Indeed, 2.4% of men and 0.3% of women use tobacco products other than cigarettes. Among the youth, the prevalence of the use of smokeless tobacco and electronic cigarettes is 3.1% and 8.5% respectively. Table 4 presents the consumption of other types of tobacco for the period 2010 – 2019.

Table 4 : Consumption Of Other Tobacco Products In Ghana

Year	Cigars, cheroots, and cigarillos*	Other manufactured tobacco**
	Kilograms	Kilograms
2010	834	1739
2011	1454	1195
2012	8747	-
2013	1564	10854
2014	507	1303
2015	113	42180
2016	1273	597
2017	45269	905
2018	31617	14002
2019	4765	5106

SOURCE: UN Comtrade database.²²

- Contains tobacco or tobacco substitutes.
- Includes tobacco substitutes, tobacco extracts and essences, waterpipe etc.

The use of shisha and e-cigarettes is fashionable in Ghana, and usually consumed in enclosed areas. This perhaps explains why many young people prefer shisha and e-cigarettes to cigarettes. About 2% of females (13 – 15 years) used shisha in 2017 compared to 0.9% of males in the same age group.²⁴ Thus, while many young people are not taking up cigarette smoking, many young people are initiating shisha and other forms of vaping.

Illicit Tobacco Consumption

Illicit trade is a major problem affecting global tobacco control. At the global level, illicit cigarettes are estimated to be 11.6% of the total market.²⁵ For this reason, many countries including Ghana have ratified the WHO Protocol to Eliminate Illicit Trade in Tobacco Products

Estimates by British American Tobacco (BAT) suggests that, annually, global illicit cigarette consumption is between 330 billion and 660 billion cigarettes across the world.²⁶ This translates into tax revenue losses of up to US\$40 billion to governments around the world and another US\$5 billion to US\$10 billion losses to tobacco companies.²⁶ In the West African sub-region, lost revenues from illicit cigarette revenues amounted to US\$774 million

as of 2009.²⁶ Ghana's tobacco market has a significant amount of illicit trade. The Finance Ministry and the Customs Division of the GRA estimate that illicit tobacco products constitute 20-30% of the market.²⁷ In 2016, Euromonitor estimated that 24% of total tobacco sales in Ghana were illicit. It is therefore not farfetched that the government destroyed five illegal 40-footer containers loaded with several cartons of cigarettes in Kpone that same year.²⁸ Similar incidents have occurred in parts of the Bono, Ahafo, and Ashanti regions,ⁱⁱ where smuggled cigarettes were confiscated and destroyed.²⁹ We also found during field visits that, in Hohoe, a 20-pack Rothmans Royals cigarette, not authorized in Ghana (without tax stamp), was selling at GH¢8. Indeed, cigarette smuggling (channeled mainly through neighboring Togo) is estimated to be around 20% of the total market.²⁷ This has been corroborated by a recent study (2021) by the Ghana team of the Tobacco Control Capacity Program which found that approximately 21% of all cigarette consumption was illicit.ⁱⁱⁱ

ii. Bono and Ahafo regions used to be part of the defunct Brong Ahafo region of Ghana as of 2016

iii. The findings from the Tobacco Control Capacity Program (TCCP) study were disseminated on the 01 – 02 September 2021 at Alisa Hotel, Accra. For more information, visit <https://tobaccoreporter.com/2021/09/06/alarm-about-illicit-cigarettes-in-ghana/>

CHAPTER THREE

Tobacco And The Economy Of Ghana

Entry Of Tobacco In Ghana

The exact date in which tobacco entered Ghana is unknown. Some historical accounts suggest that tobacco entered Ghana in the 17th century by the Europeans.^{30 31} However, significant trade in tobacco products began after the return of the Ghanaian servicemen who developed the habit of smoking while on overseas war duty during the World War II. In 1948, Pioneer Tobacco Company Ltd (PTC) in which BAT owned 45%, came to Ghana, and began manufacturing in 1952.^{30 31}

In 1976, the International Tobacco Ghana Limited (ITG), licensed by Rothmans, started manufacturing tobacco. ITG replaced some brands of Rothmans that were previously smuggled into the country.³¹ In 1989, a huge levy of sales and excise (duty) tax was levied on ITG. This led to ITG's closure. Meridian Tobacco Company (MTC), then owned by Rothmans and the Ghana Social Security and National Insurance Trust (SSNIT)), bought the assets of ITG. In 1999, PTC acquired MTC to form British American Tobacco Ghana (BATG).³⁰ BATG became the only manufacturer of cigarettes in Ghana.³⁰

In 2006, BATG closed its manufacturing operations in Ghana, delisted from the Ghana Stock Exchange and relocated to Nigeria. The Nigerian operations, part of the BAT West and Central Africa Area, now supplies cigarettes and other tobacco products to the West African sub-region. Thus, cigarettes currently consumed in Ghana are imported.

The Market Players

In Ghana, BATG Limited is the top importer of tobacco products. The company sources its products from BAT West and Central Africa (BATWCA) in Nigeria, and accounts for about 98% of the total retail sales, with brands such as Pall Mall, Rothmans, State Express 555, London, and Paul Mall Menthol.³² In 2011, BATG ranked 16th on the Ghana club 100 company rankings, with a turnover and net profit of GH¢55.38 million and GH¢22.28 million, respectively.

The Thang Long Tobacco Company (Vietnam) also has presence through its brands like Gold Seal and ORIS imported by Target Link. Brands from Philip Morris International such as St Moritz, Chesterfield, Fine and Marlboro are also sold on the market. Other importers are Lease Tobacco and Commodities, and Rafimes Company.³² The Tobacco Control Survey in Ghana (TCSG), 2020 found 21 cigarette brands in the Ashanti, Central, Greater Accra and Northern Regions of Ghana.³³ The following are the market shares of various brands in 2020 (Table 5).

Table 5 : Cigarette Brands And Market Share In Ghana, 2020

Brand name	All Four Regions	Ashanti	Central	Greater Accra	Northern
Alishan	0.04%	0.00%	0.00%	0.16%	0.00%
Benson & Hedges	0.57%	0.00%	7.41%	1.41%	0.00%
Business	0.04%	0.00%	3.70%	0.00%	0.11%
Business Club	0.04%	0.00%	0.00%	0.00%	0.11%
Business Royals	12.68%	2.28%	0.00%	4.38%	27.38%
Captain Black	0.04%	0.14%	0.00%	0.00%	0.00%
City Express	0.04%	0.00%	0.00%	0.16%	0.00%
Fisher	0.70%	1.99%	0.00%	0.31%	0.00%
Gold Seal	3.32%	9.82%	0.00%	1.10%	0.00%
Golden Deer	0.09%	0.00%	0.00%	0.31%	0.00%
London	29.56%	40.97%	31.48%	29.42%	20.54%
Marlboro	0.13%	0.14%	0.00%	0.31%	0.00%
Mile	0.13%	0.00%	0.00%	0.00%	0.34%
Oris	4.72%	2.13%	0.00%	1.88%	9.09%
Pall Mall	15.17%	9.53%	25.93%	28.33%	9.54%
Rothmans	23.26%	24.75%	29.63%	28.79%	17.73%
Sir	0.74%	0.71%	0.00%	0.16%	1.23%
State Express	8.40%	7.54%	1.85%	2.97%	13.36%
Timeless Time	0.17%	0.00%	0.00%	0.00%	0.45%
Tusker	0.04%	0.00%	0.00%	0.16%	0.00%
Yes	0.09%	0.00%	0.00%	0.16%	0.11%

Source: Computed from Pokuaa et al.³³ In bold are popular brands

It is important to note that some brands are unregistered for sale in Ghana but are on the market.^{21 32 34} In August 2021, a few shops in Kumasi and Hohoe were visited. Brands such as Business Royals, Oris Slims, Rothmans Royals, Fine, St. Moritz and Chester Field that have French inscriptions and/or without tax stamps were found. The figures below show photographs of some of the brands.

Figure 4 : Samples of unregistered cigarettes with French inscription



SOURCE: Authors (2021)

Some brands also had the inscription "The Federal Ministry of Health warns that Smokers Die Young". These brands had no tax stamp and the packs looked old on close examination, but are on sale. Since Ghana does not use a federal government structure, any cigarette pack with such inscription as clearly shown in Figure 5 below, can be deemed to be illicit.

Figure 5 : Samples of unregistered cigarettes from a federal government territory



SOURCE: Authors (2021)

In all shops visited, brands such as Pall Mall, London, and State Express 555 had tax stamps and also had the inscription "**For Sale in Ghana Only**". The research did not ascertain or verify the genuineness of the tax stamps found on the market, due to time constraints and also because it was not the focus of the study. It is possible that some distributors use fake tax stamps. However, such acts can only be detected via sophisticated devices for such purpose and by trained personnel from the GRA and the Ghana Standards Authority (GSA).

Figure 6 : Pall Mall cigarette on display



SOURCE: Authors (2021)

Operational Style Of The Tobacco Industry

Tobacco importers normally work with local distributors to get their products on the market, both in urban and rural areas. The main distribution networks are found in major urban centers: Accra, Takoradi, Kumasi, Tamale, and other major towns. Street vendors, hotels, restaurants and bars are the most important channels of distribution system.³⁴ Modern retailers (i.e., grocery stores and supermarkets) only sell cigarettes in unopened packs. Sellers require a legal permit to sell tobacco in Ghana, but many small retail shops, street vendors, bars, restaurants, and hotels sell cigarettes without any permit due to lax regulation and non-compliance.³⁴ Single stick sale is prohibited. However, during field visits, many vendors and retailers were found selling single cigarette sticks, at least in places in-and-around Hohoe in the Volta Region. Therefore, poor people who cannot afford a full pack purchase single cigarette sticks easily. Aside from the main distribution channels, online marketing is a new avenue to reach potential customers. The average Ghanaian now spends more time on the internet. Therefore, according to Euromonitor International³⁴, many sellers now make sales on social media platforms.

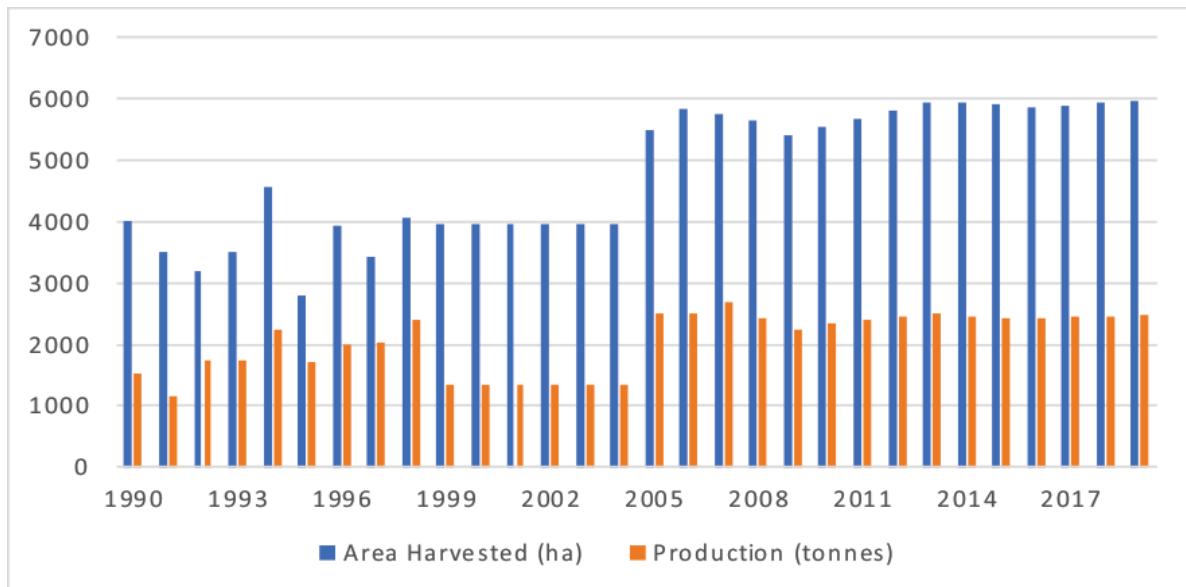
The tobacco industry also gives funding to various agencies and institutions of state in the form of corporate social responsibilities. Evidence of this in Ghana relates to BATG granting 250 million (now GH¢25000) to the University of Ghana (to support Jubilee Hall Fund) and the Kwame Nkrumah University of Science and Technology (to support the establishment of Research Chair in Agro-Forest at the Institute of Natural Resources.) This donation was given in 2002. Students also benefit from scholarship opportunities.³⁵ In 2007, BATG donated 12 jungle bikes to the Customs Excise and Preventive Service (CEPS) to build its capacity in fighting illicit trade.³⁶ All these are aimed at improving the corporate image of the tobacco industry. At present, there is no information on corporate social responsibility of the tobacco industry in Ghana.

Tobacco Employment

Like other commodities, tobacco provides employment to some people around the world, especially in countries like Malawi and Zimbabwe who depend heavily on tobacco. However, data on tobacco sector employment is difficult to obtain even for countries where tobacco is widely cultivated and manufactured, a concern also expressed by the International Labor Organization (ILO). Indeed, where some data do exist, they are fraught with substantial gaps as well as infrequent and unsystematic reporting.³⁷

Ghana's situation, in terms of data availability on tobacco sector employment, is even more precarious as data is scant. Tobacco employment can be categorized into leaf growing (farmers), manufacturing (formal sector employment) and distribution including wholesale and retail. Figure 7 presents the tobacco leaf production in Ghana for the period 1990–2019.

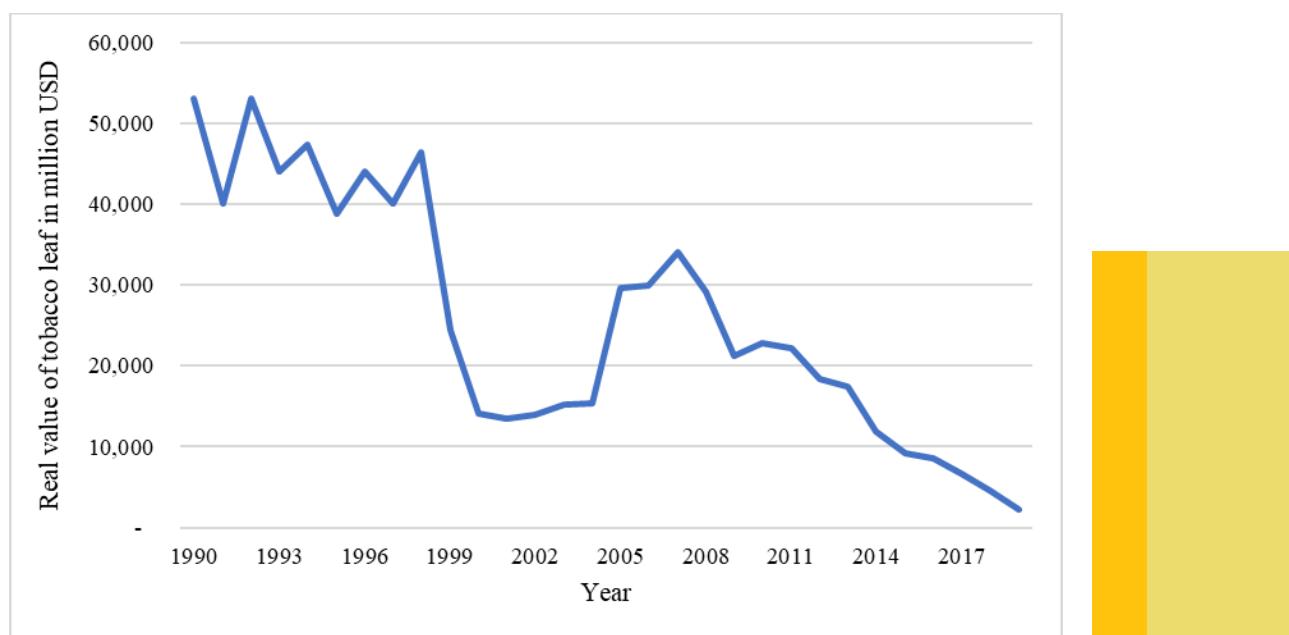
Figure 7 : Tobacco Leaf Production In Ghana, 1990–2019



SOURCE: UN FAO³⁸

Figure 7 provides information on area harvested and metric tons of leaf produced. The area harvested increased from 4,000 hectares in 1990 to 5,972 hectares in 2019. In the same period, tobacco leaf production increased from 1,530 tons to 2,470 tons. These figures suggest that leaf production increased at an average of 3.8% annually over the last three decades. However, the real value of output in terms of US dollars has been declining, from US\$53 million in 1990 to US\$2.2 million in 2019 (see Figure 8). The average rate of decline was 6.89% per annum during the period.

Figure 8 : Real value of tobacco leaf, 1990 – 2019



SOURCE: Authors' compilation based on UN FAO³⁸



Although there is very little data on tobacco sector employment, some estimations could be made based on data related to the sector. Data exist on tobacco leaf cultivation in Ghana as well as unmanufactured tobacco production from the UN's FAO. It must be noted that tobacco may be only a part of the portfolio of farmers, distributors, wholesalers, and retailers, suggesting that these people may not depend solely on tobacco for their livelihoods. Therefore, the employment estimates may be thought of as people who rely partly and/or solely on tobacco.

In 2005, it was reported that BATG, which controlled significant market share in Ghana (about 89% in 2005³²), had about 1300 registered farmers involved in leaf production.³⁹ With these pieces of information, it is possible to estimate the number of people employed in tobacco leaf cultivation in Ghana over the years. Thus, if BATG which controlled 89% of the market in 2005, had 1300 registered tobacco leaf growers in 2005, then the estimated total number of leaf growers in Ghana for that year was 1461, obtained as $[100/(100-11)*1300]$.

With time series data on the real value of production of tobacco leaf, it should be possible to project or estimate the total tobacco leaf growers in Ghana in the years after 2005 using assumptions about the real value of tobacco leaf. The trend of the real value of tobacco leaf production shows a decline of 6.89% on the average. A decline in real value of tobacco leaf implies a decline in the real value of income received by these growers which is a disincentive and could result in some of the farmers moving their resources to the cultivation of other profitable crops. Indeed, this is more likely in view of the exit of the major buyer (BAT) in 2006. Using the rate of decline of the real value of tobacco leaf production of 6.89% over the years, we assume that the number of farmers engaged in tobacco leaf cultivation may also decline by 6.89% over the same period. This is because the decline in the real value of tobacco leaf implies a decline in the real value of income from leaf production. Therefore, farmers will shift from leaf production to other crops. The resulting estimates of the number of tobacco leaf growers (reduced by 6.89% each year) are presented in Table 6. Discussions with some local experts suggest that many former tobacco farmers now cultivate garden eggs and pepper. For those who continue to cultivate tobacco, other crops have been added.

Having estimated the number of tobacco leaf growers, the study also estimated the number of workers employed in tobacco distribution, wholesale, and retail. According to BAT, it engaged 250 distributors, 1800 wholesalers and 20,000 retailers in 2005. On the basis of the assumptions and reasoning applied to the estimation of tobacco leaf growers from 2005 to 2019, the number of workers engaged in tobacco distribution, wholesaling and retailing are estimated and presented in Table 6.

Table 6 : Estimate of tobacco-related employment in Ghana

Year	Farmers	Distributors Personnel	Wholesalers	Retailers	Total
2005	1461	281	2022	22472	26236
2006	1360	262	1883	20924	24428
2007	1266	244	1753	19482	22745
2008	1179	227	1633	18140	21178
2009	1098	211	1520	16890	19719
2010	1022	197	1415	15726	18360
2011	952	183	1318	14643	17095
2012	886	170	1227	13634	15917
2013	825	159	1142	12694	14821
2014	768	148	1064	11820	13800
2015	715	138	990	11005	12849
2016	666	128	922	10247	11963
2017	620	119	859	9541	11139
2018	577	111	800	8884	10372
2019	538	103	744	8272	9657

SOURCE: Authors' estimates.

As observed in Table 6, tobacco sector employment is relatively low. From an estimated 1461 farmers in 2005, the number declined steadily in the succeeding years to reach an estimated 538 workers in 2019. That is not surprising for two reasons. First, the real value of tobacco leaf production has seen a steady decline, affecting the real value of the revenues of tobacco leaf growers. Such a dip in real revenues prompts growers to move resources to more valuable crop production. Second, the exit of BAT from Ghana in 2006 meant a significant blow to formal tobacco sector jobs as well as jobs in the wholesale, distribution, and retail value chain. Indeed, the exit of BAT would necessarily also affect tobacco leaf growers since BAT was the major buyer of the produce of these farmers. Thus, many tobacco leaf growers must have shifted to other crops.⁴⁰ In some parts of Ghana, like Gbefi in the Volta Region, tobacco growing is active and it is the main crop. On formal employment, a quick search on Google provides BAT Ghana staff strength to be about 50 as of November 2021.^{iv} This represents a decline from 260 full time staff engaged by the company in 2005.³⁹

Revenue To Government

The government of Ghana generates revenue from the tobacco sector. The revenue comes in the form of taxes such as Value-Added Tax (VAT), excise, corporate income tax, employee personal income tax (Pay As You Earn (PAYE)) and other forms of fees charged by the government. However, except excise taxes, data on PAYE, corporate income tax and other forms are scant. Therefore, we present government revenue from tobacco taxes.

^{iv}. <https://www.linkedin.com/company/british-american-tobacco-ghana-limited/about/> (accessed on 30 Nov 2021)

Table 7 : Tobacco tax revenue in Ghana, 2006 – 2019, in million GH¢ and US\$

Year	Tax Structure	Total Tax*		Import Excise	
		GH¢	US\$*	GH¢	US\$*
2006	Ad valorem	0.49	0.53	0.38	0.42
2007	Ad valorem	19.03	20.41	16.03	17.19
2008	Specific	20.60	19.58	18.96	18.02
2009	Specific	27.96	19.90	25.16	17.91
2010	Ad valorem	29.83	20.86	23.18	16.21
2011	Ad valorem	37.81	24.86	29.66	19.51
2012	Ad valorem	52.15	28.58	41.07	22.51
2013	Ad valorem	58.81	29.68	46.23	23.33
2014	Ad valorem	96.91	33.46	73.16	25.26
2015	Ad valorem	73.48	19.78	55.28	14.88
2016	Ad valorem	114.29	29.23	88.01	22.51
2017	Ad valorem	87.63	20.14	66.98	15.40
2018	Ad valorem	118.41	25.82	90.66	19.77
2019	Ad valorem	106.2	20.36	80.77	15.48

SOURCE: GRA²³, Frank Otchere, et al.⁴¹

- Includes all taxes on tobacco according to Appendix 1.
- Based on year-specific official exchange rate, GH¢ per US\$.

Specifically, tobacco revenues decreased from about US\$21 million in 2010 to US\$20 million in 2019 on a year-on-year basis (see Table 7). Between 2010 and 2019, the government received an average of US\$25 million annually from the tobacco sector through taxes. Annual brand registration with the FDA was US\$15000 per brand in 2016 and US\$25000 in 2020. Applying the 2020 registration rate to the number of brands surveyed³³ (assuming that all brands were duly registered with FDA) yields US\$525000 for 2020. The decline in revenue in 2019 from its 2018 level reflects reduced consumption (import volumes) as shown in Figure 3. The implementation of specific tax in 2008 and 2009 also saw revenues increasing from about GH¢19 million (under ad valorem tax system) to about GH¢28 million (under the specific tax system) (Table 7).

Employment Income

Tobacco farmers also earn income from leaf growing. According to Samson Obed Appiah⁴⁰, a typical tobacco farmer's annual income was GH¢2500 in 2015. This constituted over 80% of housekeeping money for many households. "Tobacco money is basically the money we use for everything in this community" suggesting the key role tobacco plays in the economic lives of tobacco farming communities.⁴⁰ Aggregating the farmer income to the national level, we estimated that farmers earned GH¢1.79 million cedis in 2015. Using a minimum wage of GH¢10.65 and the number of farmers, distributors, and wholesalers in 2019, we can estimate that workers in the sector earned about GH¢3.54 million in 2019. This represented 0.001% of Ghana's GDP in 2019. Using the same assumptions and minimum wage, the income of workers in BAT office would also be GH¢127,800 (=50 workers x10.65 x20 days x12 months) for 2019.

Health Impact Of Tobacco Use In Ghana

Tobacco use is associated with the emergence of many diseases such as lung cancer, ischemic heart disease, and many chronic diseases. In Ghana, the burden of tobacco is huge and growing (see Table 8). Tobacco kills an average of 5000 people and, on average, causes 193000 years of disability annually.⁴² There are also productivity and healthcare costs that result from tobacco use. These costs amount to over US\$PPP 123 million every year, surpassing the revenue collections from tobacco.⁴

Table 8 : Deaths and disability from tobacco use in Ghana, 2010–2019

Year	Number of deaths from tobacco	DALYs**
2010	5404	173612
2011	5524	177070
2012	5638	180520
2013	5785	185290
2014	5946	191014
2015	6144	197030
2016	6313	202369
2017	6457	206231
2018	6507	206329
2019	6639	209463

SOURCE: Global Burden of Disease Collaborative Network ⁴²

• • Disability-adjusted life years

Some tobacco farm workers, including children are reported to be exposed to poisonous substances like Dichlorodiphenyltrichloroethane (DDT).⁴⁰ Children as young as 8 years are employed to cure, weed, or harvest tobacco, which is an evidence of child labor in tobacco growing areas.⁴⁰

Tobacco Use And COVID-19

Corona Virus Disease 2019 (COVID-19) is a respiratory disease which primarily targets lung epithelial cells and can cause viral pneumonia and acute respiratory distress syndrome (ARDS), especially in elderly patients. Chronic obstructive pulmonary disease (COPD) and asthma are common comorbidities in severe cases and are reported in 11% and 17%, respectively, of hospitalized patients (≥ 18 years) with COVID-19.⁴³ Although COVID-19 research is still evolving, there is evidence that smokers are more susceptible to both viral and bacterial respiratory infections as are those exposed to secondhand smoke.⁴⁴ In China, evidence shows that smokers are 1.4 times more likely to have severe symptoms of COVID-19 and approximately 2.4 times more likely to be admitted to an intensive care unit (ICU), need mechanical ventilation, or die compared to non-smokers.⁴⁵ The WHO has encouraged countries to focus on cessation efforts because smoking is associated with increased severity of disease and even death in hospitalized COVID-19 patients.⁴⁶ While there is no information on the smoking status of COVID-19 patients in Ghana, tobacco use may exacerbate the conditions of COVID-19 patients who smoke.

Impact Of Tobacco Use On Poverty And Welfare

The devastating effect of tobacco consumption can lead to household poverty. Households' expenditure on basic life's necessities, including shelter and food are often channeled into tobacco use, since its consumption is addictive. Consequently, this erodes income of the household and increases the cost of healthcare for those who are already poor.^{6 46 47}

In Ghana, tobacco use is prevalent among the poor and less well-to-do persons^{17 49 50} and there is a higher likelihood of poor adolescents using tobacco.⁵¹ Many smokers have no health insurance and therefore the likelihood of catastrophic health expenditures among such people may be high.¹⁷ This is because smokers are more likely to spend less on household health needs (e.g. health insurance), housing, food and other necessities.⁶

The above shows the deleterious effects of tobacco consumption on the poor mainly due to the diversion of household expenditure from health, food, shelter, education among others, causing poverty and deprivation. Moreover, in some countries, poor households seek to enhance family income by engaging children in tobacco farming, hence, increasing their risks of health complications.⁵²

CHAPTER FOUR

Tobacco Control in Ghana

... Of all the concerns there is one – taxation – that alarms us the most. While marketing restrictions on public and passive smoking do depress volume, in our experience taxation depresses it much more severely. Our concern for taxation is, therefore, central to our thinking about smoking and health. Taxation has historically been the area to which we have devoted most resources and for the foreseeable future, things will stay the same almost everywhere.

The Tobacco Industry, March 1985.

The Policy Framework

Ghana's anti-tobacco stance is old. This can be seen in a government directive issued in 1982 banning all forms of tobacco advertisement in Ghana.⁵⁰ Ghana is one of the first countries that ratified the WHO FCTC in 2004. Also, the country ratified the Protocol to Eliminate Illicit Trade in Tobacco Products in May 2019. However, until 2012, the country did not have a comprehensive legislative document that regulated tobacco trade and usage. The WHO FCTC Article 6 recommends countries to use tax and price measures to control the consumption of tobacco products.⁵¹

The Public Health Act (Act 851) was enacted in 2012 and Part Six of this Act deals with measures that regulate tobacco use in Ghana. To ensure effective implementation of the Public Health Act, the Tobacco Control Regulation (L.I. 2247) was adopted in 2016. Also, the FDA Guidelines for Labelling of Tobacco Products (2018) and the National Cessation Guidelines (2017) have been adopted. These regulations and laws provide the policy and the legal framework for tobacco control in Ghana.

Despite the comprehensive nature of the Public Health Act, its enforcement is weak. The Public Health Act contains laws that prohibit the selling of tobacco products in health and educational institutions (except in the tertiary institutions). However, some of these laws are not being enforced and in fact most people are not aware of the existence of these laws. Also, the Public Health Act commissioned the government to establish cessation centers at regional and district levels for persons addicted to tobacco who want to quit but this has not been implemented.

Taxation As Tobacco Control Strategy

Due to the harmful health effects of tobacco use, many governments use excise and other forms of taxes to discourage its use. This is in addition to providing health information to the public. Ghana is among the countries taxing tobacco products to discourage its use. Taxation is the most cost-effective way to control tobacco consumption, and this is supported by evidence from many countries like South Africa, France and the UK.^{54 55} It also provides revenue to governments. Tobacco taxation is therefore seen as a win-win strategy in tobacco control. Over the years, empirical evidence has shown that smokers are sensitive to price changes.⁵⁴

Excise Taxes And Other Levies In Ghana

Tobacco products such as cigarettes (containing tobacco), cigars, cheroots, and cigarillos are taxed in Ghana. The taxes include excise tax and sales tax/VAT, import duty, a health insurance levy,^{56 57} the Economic Community of West African States (ECOWAS) levy, and an economic development and investment levy. The ad valorem excise tax is based on the ex-factory price or cost, insurance and freight (CIF), and the rate had been on a downward trend from 1980 (see Table 9) to 2010, but increased slightly in 2016 following the implementation of the new excise tax law.^{56 58}

In 2008, a specific excise tax was implemented, but this was short-lived.^v The reason for the specific structure was for revenue generation purposes.⁵⁶ The new tax structure affected all non-petroleum excisable products (tobacco, alcoholic and non-alcoholic drinks), with the government assuming tax neutrality. Thus government therefore evaluates the effectiveness of the policy change in increasing non-petroleum excise tax revenue collectively.⁵⁶ According to Ghana's Ministry of Health⁵⁶, total excise tax revenue from non-petroleum products declined under the specific tax. This convinced the government to revert to the purely ad valorem tax structure in 2010. However, as shown in Table 7 (see chapter 3), the implementation of the specific tax increased tobacco excise revenues from GH¢16.03 million in 2007 to GH¢25.16 million in 2009. This represents a year-on-year increase of 57% which suggests that the specific tax system did not affect tobacco revenue negatively, but because overall non-petroleum excise revenue declined, government decided to revert to the ad valorem system. Table 9 summarizes the tax rates for cigarettes for selected years.

Table 9 : Cigarette taxes for selected years in Ghana

	Excise Tax (% of Ex-factory price/CIF)	Sales Tax/VAT
1980	185.72	15
1990	180.04*	15
2000	140	12.5
2010	150	15** #
2016	175	15**#

Notes: • average for the year;
• inclusive of health insurance levy; # base is retail price. Compiled by the authors from WHO data, tobacco industry documents and various publications of the Government of Ghana.

^v. A specific excise tax is levied as amount per weight, volume, or quantity of the product. It does not take account of the price or brand, but the unit of measurement of the product. E.g., GH¢1 per 20-pack of cigarettes. An ad valorem tax is levied as a percentage of the value of the product. The tax base may be the producer price or import value (e.g., 14% of ex-factory price, or CIF value). A uniform tax structure is where the tax rate is applicable to all categories of the products, irrespective of the features of the product (e.g., size). A tiered tax is where the product is taxed according to its features (e.g., length, tar content).

Excise taxes have consistently been levied on cigarettes, whereas taxes on other types of tobacco products (wholly or partly stemmed/stripped and tobacco not stemmed/stripped) have not been taxed consistently over the years. It is important to note that embassies and diplomatic organizations operating in Ghana enjoy exemptions on small quantities of tobacco products that they import. A total of US\$11.2 million were granted in exemptions on tobacco products during the period 2006–2011⁴¹ and about US\$3.8 million in 2014.

Recently, COVID-19 health recovery levy (CHRL) and Ghana Education Trust Fund (GETFund) levies were added. As of June 2021, the following are the components of tax levied on cigarettes, containing tobacco, in Ghana (see appendix): import duty, VAT, excise duty, ECOWAS levy, economic development and investment fund levy, National Health Insurance Scheme (NHIS) levy, special levy, GETFund levy, AU Import levy, CHRL, and Internal Revenue Service (IRS) tax deposit. There are also fees for tax stamps and processing whenever applicable. Both excise tax and total tax have increased as a percentage of the retail sales price of the most sold brand (see Table 10).

Table 10 : Tax share and price of 20 cigarettes pack of the most sold brand in Ghana

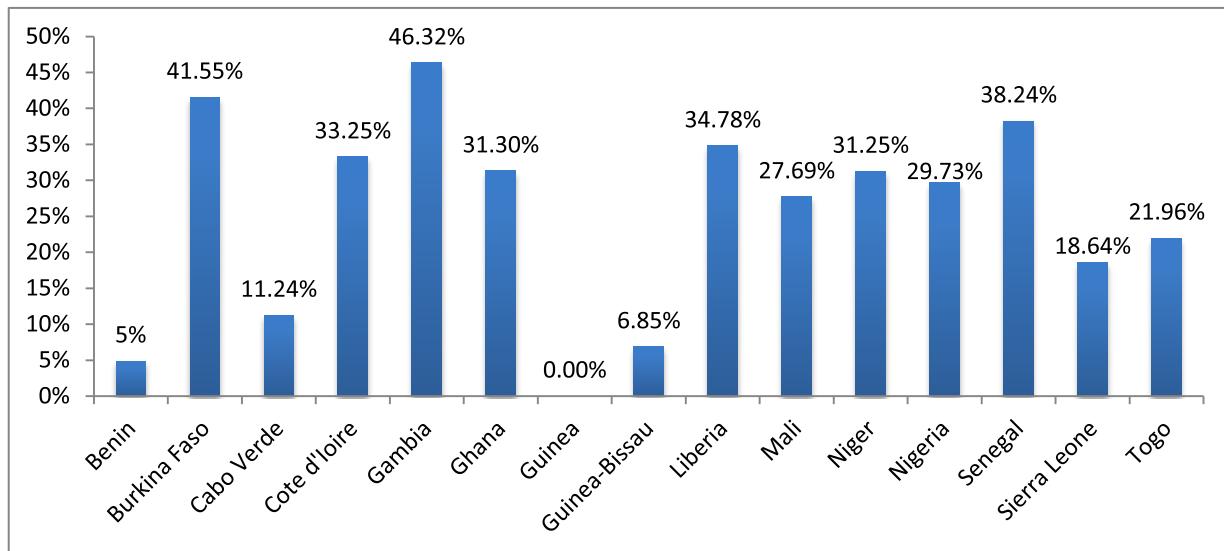
Year	Excise Tax as % of Retail Sales Price (RSP)	Total Tax as % of RSP	Price of Most Sold Brand (MSB) in GH¢	Price of MSB in International US\$ PPP	Price of MSB in Official Exchange Rate
2020	16.51%	31.75%	5.00	2.26	0.88
2018	16.06%	31.30%	4.99	2.99	1.06
2016	16.06%	31.30%	4.99	2.99	1.06
2014	13.02%	28.10%	4.99	3.62	1.26
2012	13.02%	28.31%	2.50	2.43	0.82
2010	9.68%	22.88%	2.00	2.53	1.06
2008	9.03%	22.23%	2.00	3.19	1.39

SOURCE: WHO^{59 60}

Despite the many levies on tobacco products, the taxes form just a small fraction of the retail sales price. Thus, the tax share of the retail price is far below the WHO recommended levels of 70-75%. The reason is that Ghana uses an ad valorem rate of 175% of the CIF value to determine the excise to be paid. Because the CIF value is such a small fraction of the retail price, the excise tax (as a percentage of the retail price) also becomes low.

The tax burden (i.e., tax share of the retail price) are similar to what exists in most countries in the ECOWAS/WAEMU region (Figure 9), suggesting that implementation of FCTC Article 6 is low in the ECOWAS/WAEMU region.

Figure 9 : Total tax incidences among ECOWAS/WAEMU countries, 2018



SOURCE: WHO⁵⁹

The Structure Of The Tax Matters

In as much as the rate of tax is important in tobacco control, equally important is the structure of the tax. That is, whether the tax system is tiered or uniform, specific or ad valorem or a combination of various systems. In tiered tax systems, such as in Sri Lanka, companies may have an incentive to rebrand or reduce the length of cigarettes to avoid paying higher taxes. In ad valorem systems, the base determines the strategies that companies adopt. In low- and middle-income countries, the ad valorem excise tax is usually based on the manufacturer's (ex-factory) price or CIF value. In some countries, the base of the tax is the retail price or other definitions of price (e.g., retail price net of specific taxes). Different bases will provide different amounts collected, even if the tax rates were to be the same. A typical example is provided by the WHO, where even with the same ad valorem excise tax rate, the tax share in retail price differs.

Figure 10 :Ad valorem tax base and tax share in retail price

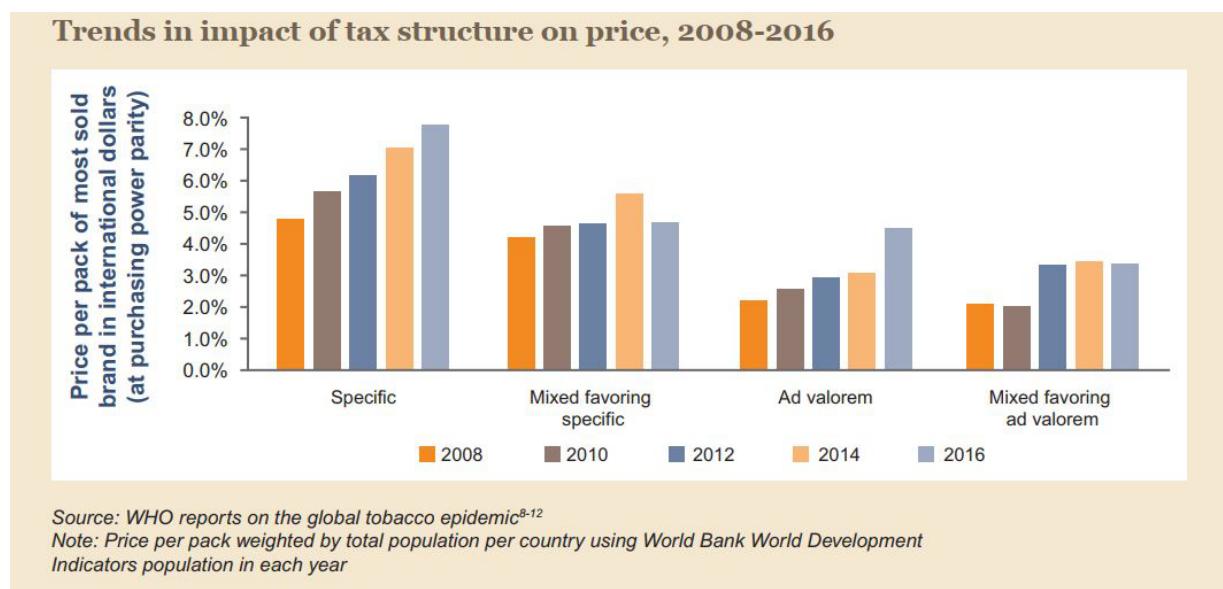
	Country A (US\$)	Country B (US\$)
[A] Manufacturer's price (same in both countries)	2.00	2.00
[B] Country A: ad valorem tax on manufacturer's price (20%) = 20% x [A]	0.40	-
[C] Retailer's and wholesaler's profit margin (same in both countries)	0.20	0.20
[D] Country B: ad valorem tax on retailer's price (20%) = 20% x [E]	-	0.55
[E] Final price = P = [A]+[B]+[C] or [A]+[C]+[D]	2.60	2.75
Total tax share (as % of P)	0.40/2.60 = 15.4%	0.55/2.75 = 20%

SOURCE: WHO⁶⁰

The ad valorem tax structure has an automatic adjustment for inflation, but it allows manufacturers to manipulate the amount of tax paid by adjusting the ad valorem tax base (e.g., ex-factory price, CIF). Thus, manufacturers have an incentive to declare lower ex-factory price or CIF value if the ad valorem tax is based on CIF or ex-factory price. In fact, firms have an incentive to increase production under the ad valorem system because increased supply will lower prices given demand conditions. Part of this price fall is also borne by the tax authorities since the per unit tax payment falls.⁶¹ Although government benefits from any increase in prices in the form of revenue under the ad valorem system, the desire to pay lower taxes makes manufacturers and importers reduce prices declaring lower ex-factory and CIF values which affects government revenue.^{61 62} The ad valorem tax structure also creates large price differences between cigarette products, which may encourage smokers to switch from higher-priced cigarettes to low-priced ones as taxes increase, rather than quitting.⁶³ This defeats the public health objective of the tax.

The situation is different under specific tax systems, where increases in producer price goes to the producer as revenue.⁶¹ Given that specific taxes strongly encourage producers to raise the prices of their products, they are uncomfortable with specific tax systems because of the effect that higher prices have on consumption.

Figure 11 : Tax structure and the effect on retail price



SOURCE: : G Rodriguez-Iglesias and E Blecher⁶²

To conclude, different tax structures affect the actual amount of excise tax collected and the share of tax in the retail price. This partly explains why the tax share in cigarette retail price is low in Ghana despite high [excise] tax rate of nearly 200%. It is because of the many disadvantages of the ad valorem tax system in relation to public health that the ECOWAS directive of 2017⁶⁴ and the WHO FCTC guidelines entreat countries such as Ghana to have uniform specific excise tax component for tobacco products. The ECOWAS directive requires member countries to charge a minimum ad valorem rate of 50%, with a minimum specific tax of US\$0.02 per cigarette, cigar and cigarillos and US\$20 per kilogram for all other tobacco products.⁶⁴ Simulation studies have shown that by implementing the ECOWAS directives, Ghana can significantly raise the retail price to reduce consumption.^{33 65} Table 11 depicts the changes in retail price, excise tax burden and the tobacco tax revenue under different tax systems.

Table 11 : Effect of changing Ghana's tax structure

	Baseline: ad valorem rate of 175%	Scenario 1: ad valorem rate: 175%; specific tax: GH¢2/pack	Scenario 2: ad valorem rate of 175%; specific tax of GH¢3	Scenario 3: ad valorem rate of 175%; specific tax of GH¢4	Scenario 4: Only a specific tax of GH¢5
Retail Price (RP)	6.79	11.1	13.3	15.5	17.1
% change in RP		64.1	96.1	128.1	152.4
Average excise tax burden (%)	6.68	27.2	33.9	39.1	41.6
Cigarette consumption (CC, Million packs)	65	54.1	50.3	43.3	45.8
% change in CC		-16.8	-22.5	-27.2	-29.5
Total Government Revenue (TGR)	97.78	209.0	253.9	294.4	314.8
% change in TGR		113.8	159.7	201.0	221.9

SOURCE: Pokuaa et al.³³ . Percentage changes are based on baseline figures

It is clear from Table 11 that Ghana can significantly raise the retail price of cigarettes when a specific tax is implemented in addition to the current ad valorem structure. This will raise the tax share of the retail price to 27%.³³ This corroborates other simulations that show that implementing the ECOWAS minimum requirements in Ghana can increase the excise tax burden to 36% to achieve substantial reduction in consumption.⁶⁵

What Ghana Can Learn From Other African Countries

To address the weaknesses of the ad valorem tax system in tobacco control, some African countries (see Table 12) are using either only specific tax or as an addition to ad valorem tax system.

Table 12 : African countries using specific tax to address shortfalls of ad valorem system

Country	Excise Tax, % of Retail Price	Total Tax, % of Retail Price	Tax Structure
Mauritius	70.5	83.5	Specific tax
Seychelles	57.0	70.1	Specific
South Africa	41.6	54.6	Specific
Rwanda	40.6	55.9	Ad valorem + specific
Eswatini	40.4	52.7	Specific
Botswana	39.2	49.8	Ad valorem + specific tax
Kenya	38.5	52.3	Specific
Gambia	33.3	46.3	Specific

SOURCE: WHO⁵⁹

These countries have been able to significantly raise prices and the excise tax share. Due to the challenges associated with the ad valorem tax system, many countries are moving towards a pro-tobacco control tax policy. A typical example is Rwanda. Between 2001 and 2015 (June), Rwanda taxed tobacco products using ad valorem system with the CIF or the ex-factory price as the base. In July 2015, the Government of Rwanda added a specific excise tax to the existing ad valorem system. The base for the ad valorem tax was changed from CIF/ex-factory price to the retail price. This created a mixed tax system for tobacco products. The new tax policy resulted in reduced consumption of tobacco products.⁶⁶

It must be noted that Ghana implemented a specific excise tax for tobacco in 2008 and 2009. These periods saw increased cigarette consumption (Figure 3) and revenue (see Table 7). The reason for the higher consumption is due to the low tax levied (GH¢0.55 per 20-pack of cigarettes or even lower for some brands), which was too low to significantly raise the price coupled with the fact that the excise rate was not increased in 2009. The tobacco industry usually absorbs taxes when such taxes are low.

Other Fees And Levies

In addition to the tax, importers pay an annual registration fee for each brand variant. The fee is set high for cigarettes, increasing from US\$15000 in 2016 to US\$25000 in 2020. In 2018, the government introduced tax stamps. Every pack of cigarettes must bear a tax stamp to indicate that applicable taxes have been paid. The tax stamp makes it easier to identify illicit cigarettes on the market. The revenue authority determines the cost based on the value of the product.

Corporate Income Taxes

Businesses operating in Ghana pay taxes on their incomes or profits. However, there are different tax rates for companies operating in different sectors of the economy. The general corporate tax rate is 25%. For mining and petroleum companies, the tax rate is 35%, while it is 22% for hotels. There are temporary concessions of 1% for crop and livestock farming and agricultural processing businesses. Tax rate for Free Zone Enterprises after their ten-year concessionary period is 15%. Other taxes like VAT, health insurance levies, and communication service taxes are paid in line with existing regulations. Tobacco companies pay the general corporate rate of 25% on their income.

Tax Evasion And Avoidance

Tax evasion and tax avoidance have characterized the tobacco industry for decades. Tax evasion relies on deliberate fraud to achieve its outcome of paying less or no tax. This is illegal and therefore punishable by law. On the other hand, tax avoidance uses non-fraudulent mechanisms to reduce tax burden. Tax avoidance mechanisms can be found to be lawful or unlawful, once a given scheme is investigated by tax authorities and/or tested in

court.⁶⁸ Due to the illegal and hidden nature of tax evasion, the tobacco industry, and in fact many companies, may not find it prudent to engage in such practices. However, the issue of tax avoidance through fraudulent invoicing and transfer mispricing as well as other trade malpractices is a serious issue. This is typical of multinational corporations. Estimates show that Ghana lost between 30 to 51 million euros annually from 2005 to 2007 through tax avoidance practices. This relates to only trade (inclusive of all sectors) with the European Union.⁶⁹ Regarding tobacco, a report by the Tax Justice Network⁶⁸ suggests that BAT is shifting about US\$1 billion in taxes out of low- and middle-income countries through tax avoidance, although the company denies this. The tobacco giant is being investigated for tax avoidance, known as tax disputes in BAT reports, in Brazil, South Korea, South Africa and the Netherlands.⁷⁰ In South Korea, transfer pricing and other practices are at work:

... All BAT cigarettes produced by local subsidiary BAT Korea Manufacturing Ltd (South Korea) are sold – on paper – to Rothmans Far East BV, a BAT subsidiary in the Netherlands. They are then immediately re-sold to a different BAT subsidiary back in Korea, BAT Korea Ltd, at a much higher price. This way, on average each year, €98 million in Korean profits are shifted to the Netherlands where the tax regime is more favorable..."⁷¹

This practice of avoiding tax is not restricted to tobacco companies. Companies outside the tobacco industry may use such strategies to reduce their tax burden. While there has not been any formal statement on tax avoidance issues among tobacco companies in Ghana recently, ongoing cases in countries like Brazil and South Africa and previous tax disputes in Ghana between Government and the defunct ITG show that the industry may be involved in tax evasion and/or avoidance. Indeed, ITG shut down due to unpaid taxes, equivalent to US\$3.3 million.³²

Tobacco Tax Administration In Ghana

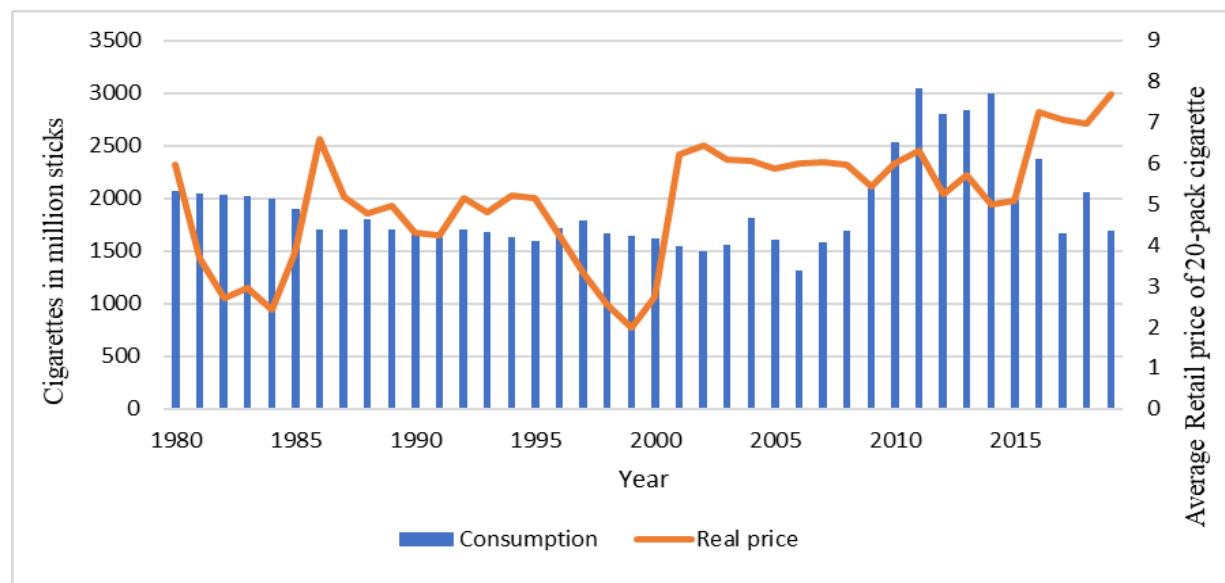
All taxes in Ghana are administered by the GRA. The GRA is the implementation arm of the Ministry of Finance. It collects all taxes on tobacco products and pays the same into the consolidated fund of the Republic of Ghana. Interactions with some senior tax officials revealed inadequate resources in ensuring compliance.

Taxation, Price And Cigarette Consumption

Economic theory postulates a negative relationship between cigarette consumption and price of cigarettes. Thus, as price of cigarettes increases, consumption declines holding all other factors affecting cigarette use constant. Figure 12 shows this pattern. Real cigarette price for the period 1980-2019 is plotted against the number of cigarettes consumed

in Ghana. It is clear from the graph that periods of lower prices were associated with higher consumption and vice versa.

Figure 12 : Trends in cigarette consumption and retail price in Ghana



SOURCE: GRA, Tobacco Industry Documents (UCSF), GlobalData and others. 2020 is base year

The effect of tobacco taxation on consumption is mediated through the retail price. Because buyers observe the retail price and not the tax at the point of sale, any tax that increases the price of cigarettes and other tobacco products is expected to reduce consumption, all else remaining the same. Thus, an increase in tax is expected to increase the retail price which will lower consumption consequently, *ceteris paribus*. Thus, the tax, working through the retail price, affects both smoking initiation and the quantity of tobacco consumed.

Price Elasticity Of Demand

The relationship between price and consumption is measured by the price elasticity of demand. The price elasticity of demand (PED) measures how sensitive consumers are to price changes. It is calculated as the percentage change in the quantity of tobacco consumed divided by the percentage change in the retail price of tobacco. This parameter tells us the effect of price changes on tobacco consumption, holding all other factors affecting consumption (e.g., health education, advertising ban, and income) constant. Because of theoretical predictions, increases in cigarette prices reduce consumption. Indeed, two simulation exercises done in Ghana in 2014 and 2020 showed that cigarette consumption falls in response to price increases.^{33 65 72} The recent study found that cigarette consumption will fall by 27% under a mixed-tax system (specific tax of US\$0.8 per 20-pack and ad valorem rate of 175%).³³

In Ghana, Samuel Asare et al.⁷³ estimated the effect of price changes on smoking initiation among the youth and found an elasticity of -3.6. This means that the likelihood of a youth starting smoking will fall by 3.6% if prices increase by 1%, holding all other factors affecting smoking constant. No estimate exists on PED for the quantity of cigarettes consumed at the national level. However, the responsiveness of Ghanaian smokers to price changes is expected to be similar to the average estimate for low- and middle-income countries, ranging from -0.2 to -0.8. This elasticity means that a 10% increase in the retail price of cigarettes will lead to between 2% and 8% decline in the number of cigarettes consumed, all other things held constant. Figure 12 shows clearly that tax and price measures work to reduce the consumption of tobacco.

Measuring The Progress Of Tobacco Tax And Price

Countries can check whether the tax on tobacco (excise or total tax) is high or low using the retail price and the share of tax in the retail price. This is also known as the excise or total tax burden (depending on which one is used to calculate the share in retail price). This is expressed as percentage of the retail price (see Figure 9 and Table 10). Higher tax burden is better as it aligns with the WHO FCTC recommendations. Thus, countries should not use the mere tax rate (e.g., an ad valorem rate of 150% of CIF) to say that taxes on tobacco are high. Rather, countries must look at the share of the tax in the retail price to check whether the tax is high or not. High tax burden also helps to make tobacco products less affordable.



CHAPTER FIVE

Findings And Recommendations

The study has provided an overview of tobacco economics in Ghana by looking at the history of the tobacco industry's entry into Ghana, prevalence of tobacco consumption, effects on the poor, employment and revenue contribution of the tobacco industry and tobacco control measures, with a particular focus on tax and price measures. After a thorough review of the literature, consultations with stakeholders and field visits, the study established the following key findings.

Findings

1. There has been a significant decline in the number of tobacco users, especially cigarettes, over the past decade. Tobacco use is prevalent among less educated people. More men smoke than women, and tobacco use is generally concentrated among the poor. These people are usually found in rural Ghana. The use of products like shisha and e-cigarettes is seen as fashionable. The youth are getting more involved in shisha use.
2. There is no tobacco manufacturing plant in Ghana. Therefore, all cigarettes and other tobacco products consumed are imported.
3. Key players in the tobacco industry are BATG Limited (part of the BATWCA) and Target Link.
4. There are over 21 brands of cigarettes on the Ghanaian market. Some of these brands (e.g., Fine, Rothmans Royals, Chesterfield) are unregistered for Ghana and have no tax stamps; therefore, deemed to be illicit. The illicit cigarette market constitutes 21% of the total market.
5. Single stick sales are rampant. All shops visited sold single cigarettes. This is usually the case when buyers cannot afford the full pack.
6. Concerning tobacco control measures especially taxes, while Ghana has numerous taxes levied on tobacco products, the structure of the taxes does not lead to significant increases in the retail prices. Tobacco tax rate seems to be the highest in the sub-region (about 200% of CIF), but it is extremely low for tobacco control purposes in that the share in the retail price is very low compared to WHO recommendations. This is so because of the ad valorem tax structure being used.

Recommendations

From the above findings, the following policy-oriented recommendations are worth considering

1. There is the need to strengthen sensitization on the deleterious effects of tobacco use, especially among people with lower socio-economic status, young people and rural dwellers. The Ghana Health Service (GHS) should collaborate with Civil Society Organizations (CSOs) involved in tobacco control advocacy and the media to embark on sensitization and awareness campaigns on the adverse effects of tobacco use. Such campaigns should be integrated into all public health care settings, focusing on tailored messaging about the dangers of smoking and/or the importance of smoking cessation. Again, given the important role played by both traditional and social media in disseminating information, GHS should use the media to educate the general public on the need to avoid smoking and promote a beneficial healthy life.
2. Government should set up a tobacco control surveillance system to enforce and ensure compliance with tobacco control policies. This can be done by setting up a task force to conduct random checks at sales points in order to curtail the sale of single cigarettes (which makes it easy for low-income people to buy) and to control the high level of illicit tobacco trade, especially at border towns. The task force should consist of the Customs Division of the GRA, Ghana Immigration Service (GIS), Ghana Police Service (GPS), GHS and the GSA. The taskforce should be given the power to prosecute individuals found culpable, and they should also be given the needed training and equipment to enable them function effectively. It is also recommended that the task force should collaborate with the media and CSOs involved in tobacco control to educate the general public on illicit and or unapproved tobacco products to enable them to desist from purchasing such products.
3. The Ministry of Finance and the GRA should, as a matter of priority, ensure that the share of tobacco tax in the retail price meets the WHO recommended 70-75% level. While there is the need to fully enforce all tobacco control legislation in Ghana, conscious efforts should be made in order to ensure that the share of the tax in retail prices reaches or surpasses the WHO recommended 70-75% level. Any tax rate that does not result in higher tax burden is not good for tobacco control. Such a tax rate will not lead to significant reduction in consumption. To this end, both the ECOWAS directives and WHO's recommendation should be implemented. In particular, the following suggestions are worth considering:
 - a. Ghana should consider revising the current tax structure. Although the WHO FCTC Article 6 recommends that parties implement a simple tobacco tax system by adopting uniform specific excise tax systems, in Ghana, tobacco taxes are purely ad valorem, thus making it prone to manipulation by the tobacco industry. Government should therefore consider adding a specific tax component to the ad valorem tax. Thus, a mixture of both specific and ad valorem is proposed, in line with the ECOWAS

directive. The physical verification of quantities should be done by the already existing tax stamps. Officials should use the tax stamp system to monitor and check quantities. Further, since all import documents provide information on quantity and value, tax officials should use the quantity declared on the invoice to determine the tax. In doing this, under-declaration will attract a penalty.

- b. A specific tax needs regular adjustment to keep up with inflation. This issue should be resolved by pegging the specific tax rate to the US\$ or to the inflation rate so that government may not need parliamentary approval for regular adjustments. Thus, after the specific tax system has been adopted, Government should adopt the minimum specific tax rate of US\$0.02 per cigarette along with the ad valorem tax system, and such specific tax rate should be implemented in real time. Pegging the specific tax rate to the US\$ also addresses the issue of currency depreciation. This policy will address some of the problems of the ad valorem tax system that Ghana is using. As has been shown in previous simulations, implementing these tax policies will not only reduce cigarette consumption by about 17% but will also increase tobacco tax revenue by 114%, amounting to about GH¢111 million in just a year. It is worth emphasizing that our call on government to increase tobacco tax is not for the purpose of raking in more revenue, but a move to control tobacco consumption.
 - c. The base, i.e., CIF, on which the ad valorem excise tax is calculated needs to be reviewed since it is too low and subject to manipulation by the tobacco industry. Government should use the retail price (as is the case in Rwanda), which is relatively higher, as the basis for determining the ad valorem excise tax.
Currently, the total tax on unmanufactured tobacco is about 30% of CIF value. This tax is low. Government should consider raising it. Also, the same tax structure and a.r.a.t.e should be applied to all tobacco products to prevent consumers from shifting to low taxed products.
4. Government should invest in a comprehensive and regular data collection system on tobacco in order to aid in conducting policy-relevant research. The lack of relevant data on tobacco and tobacco-related products makes it challenging to undertake research to provide evidence to inform tobacco control policies and interventions. For instance, although the current study touched on the use of other tobacco products such as shisha and smokeless tobacco (e.g., tawa), data paucity did not allow for a detailed analysis as has been done for cigarettes. Consequently, a comprehensive national and regional level data on tobacco and other tobacco products consumption, production, pricing, taxation, imports, employment etc. is thus critical. It is recommended that the Ghana Statistical Service (GSS), GHS, GRA, academia and CSOs in tobacco control, collaborate to spearhead data collection on tobacco.

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Appendix 1: Tax Rates for various tobacco products, June

Table: Tax Rates for various tobacco products, June 2021

UN Comtrade HS Code	Hs Description	Standard Unit of Quantity	I/Duty Rate	I/VAT Rate	I/Excise Rate	Eco Levy Rate	EDIAF Rate	I/NHIL Rate	Special I/ Levy Rate	GET Fund levy	AU Import levy	CHRL	IRS Tax Deposit	Total Tax as % of CIF	
2401.10.00	Tobacco, not stemmed/stripped	kg	5%	12.5%		0.50%	0.50%	2.50%	2%	2.5%	0.2%	1%	1%	30.20%	
2401.20.00	Tobacco, partly or wholly stemmed/stripped	kg	5%	12.5%		0.50%	0.50%	2.50%	2%	2.5%	0.2%	1%	1%	30.20%	
2401.30.00	Tobacco refuse	kg	5%	12.5%		0.50%	0.50%	2.50%	2%	2.5%	0.2%	1%	1%	30.20%	
Cigars, cheroots, cigarillos, and cigarettes, of tobacco or of tobacco substitutes.															
2402.10.00	Cigars, cheroots and cigarillos, containing tobacco	kg	20%	12.5%	17.5%	0.50%	0.50%	2.50%	2%	2.5%	0.2%	1%	1%	220.20%	
2402.20.00	Cigarettes containing tobacco	kg	20%	12.5%	17.5%	0.50%	0.50%	2.50%	2%	2.5%	0.2%	1%	1%	220.20%	
2402.90.00	Other	kg	20%	12.5%	17.5%	0.50%	0.50%	2.50%	2%	2.5%	0.2%	1%	1%	220.20%	
Other manufactured tobacco and manufactured tobacco extracts and essences; smoking tobacco, whether or not containing tobacco substitutes in any proportion															
2403.11.00	Water pipe Tobacco	kg	20%	12.5%	17.5%	0.50%	0.50%	2.50%	2%	2.5%	0.2%	1%	1%	195.20%	
2403.19.00	Other -Other	kg	20%	12.5%	17.5%	0.50%	0.50%	2.50%	2%	2.5%	0.2%	1%	1%	195.20%	
2403.91.00	others	kg	10%	12.5%	17.5%	0.50%	0.50%	2.50%	2%	2.5%	0.2%	1%	1%	185.20%	
2403.99.10	Expanded tobacco	kg	10%	12.5%	17.5%	0.50%	0.50%	2.50%	2%	2.5%	0.2%	1%	1%	185.20%	
2403.99.90	Others	kg	20%	12.5%	17.5%	0.50%	0.50%	2.50%	2%	2.5%	0.2%	1%	1%	195.20%	

SOURCE: Ghana Revenue Authority; PricewaterhouseCoopers Tax Summaries, 2021

Notes:

1. Tobacco products also attract a tax stamp of 0.016%.
2. Processing Fee of 1% is charged on the CIF when the product is exempted from Import Duty, and usually applies to embassies and other diplomatic organizations.
3. CHRL is COVID-19 Health Recovery Levy



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