ECONOMICS OF TOBACCO TAXATION IN KENYA

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FOREWORD

The right to the highest attainable standard of health is enshrined in the Constitution of Kenya as well as other national policy documents such as Vision 2030; the blue print for Economic, Social and Political development; as well as Regional and Global Treaties and Conventions that the country is signatory to such as the United Nations Millennium Development Goals (UN-MDGs). A major and rising contributor to the high disease burden in Kenya is non-communicable diseases, key amongst them, diseases caused by tobacco exposure.

Good tobacco tax policies have enormous potential to encourage quitting amongst tobacco users, prevent young people from starting – and simultaneously generate considerable tax revenue. The World Health Organization (WHO) recognizes Tax and price policies as one of the most effective strategies for combating the tobacco epidemic by reducing demand for tobacco and tobacco products. At the National level, section 12 of the Tobacco Control Act 2007 provides that the Minister of Finance shall amongst other things ***"implement tax and price policies on tobacco and tobacco products so as to contribute to the objects of the Act";*** which are inter alia to protect the Health of Kenyans and especially those below the age of 18 years.

For a long time taxation; even of harmful products like tobacco has focused solely on the revenue generating potential of such products. As the global epidemic that is tobacco continues to cause millions of death globally and especially in developing countries; it is time to consider the use of fiscal strategies to promote Public Health. However For any such changes to be acceptable to relevant policy makers and other critical stakeholders, evidence on their feasibility is required.

This publication offers such evidence; that it is possible and indeed practicable to use tobacco tax to reduce tobacco prevalence rates as well as generate revenue for the Government to support Tobacco Control, Public health and/or other national programs most of which are currently cash- strapped. It proposes adoption of strong tax policies, structures and enforcing systems that will reduce Tobacco Industry interference and manipulation that may defeat Public Health objectives. The research shows that this has been done in countries such as Thailand and closer home, in South Africa and it is possible for the same to be implemented in Kenya.

Vincent Kimosop,
Executive Director, ILA

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ACRONYMS AND ABBREVIATIONS

ATSA	Africa Tobacco Situational Analysis
BAT	British American Tobacco
COMESA	Common Market for Eastern and Southern Africa
CIF	Cost, Insurance and Freight
CPI	Consumer Price Index
FCTC	Framework Convention on Tobacco Control
GATS	Global Adult Tobacco Survey
GDP	Gross Domestic Product
GoK	Government of Kenya
GSPS	Global School Personnel Survey
GTSS	Global Tobacco Surveilance System
ILA	International Institute for Legislative Affairs
IMF	International Monetary Fund
KDHS	Kenya Demographic and Health Survey
KETCA	Kenya Tobacco Control Alliance
KNBS	Kenya National Bureau of Statistics
KRA	Kenya Revenue Authority
MDG	Millennium Development Goals
MoPHS	Ministry of Public Health and Sanitation
MRC	Medical Research Council
NCAS	National Council Against Smoking
RSP	Retail Selling Price
TCA	Tobacco Control Act
TFK	Tobacco Free Kids
TI	Tobacco Industry
UN	United Nations
VAT	Value Added Tax
WHO	World Health Organization

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EXECUTIVE SUMMARY

Tobacco taxation has been touted as one of the most effective strategies for mitigating the harmful effects of tobacco use and reducing tobacco prevalent rates. The goal of this study is to provide critical evidence, for use mostly by policymakers for effecting Public Health and Tobacco Control friendly tax policies that contribute to the objectives of the Tobacco Control Act 2007 and comply with the Governments obligations under the WHO FCTC.

The specific objectives of this study are to review the trends in the prices for tobacco products, their tax structure, and total revenue accrued to the government; to determine the responsiveness of tobacco consumption to changes in prices and taxation and to review the global approaches to the tobacco epidemic through tax policies (comparing to Kenya's experience), outlining challenges, lessons and successes made in the process. Finally the study seeks to make recommendations on how tobacco tax can be used in our local context to reduce tobacco use and raise much needed revenue.

Section 2 of the study describes the structure of excise and tobacco taxes including the reforms that have been undertaken over time. It details the changes between specific, advalorem and hybrid systems and highlights impact on revenue collected, administration challenges and price/ affordability differences.

In Section 3 we review the performance of the tobacco industry in terms of competition, production, consumption, prices and price elasticities. Amongst other things, we see a general increase in the nominal price of cigarettes per pack. However there is a considerable decrease in the REAL price of the cigarettes leading to increased in affordability and eventually contributing to increased consumption especially amongst the youth and other populations with limited purchasing power.

Section 4 gives an overview of best practices in tobacco taxation from around the Globe. These include practices in relation to the tax structure (uniform vs. differential; specific vs. advalorem vs. hybrid); excise tax share in the product prices based on the WHO recommendation of 70% and earmarking of tobacco taxation for tobacco control programs especially in our local context of limited resources for TC. Successful Experiences from Australia, Thailand and South Africa are shared.

Finally the report makes some recommendations that would go a long way in improving the tax policy and administration in the country and thereby promote the Public Health objectives stipulated in the Tobacco Control Act and ensure compliance with the FCTC

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1.0 Introduction

Smoking of cigarettes and other tobacco products remains a big problem among the youth and among the adults but the statistics on prevalence are mixed. This is because the different surveys used different methodologies that not easily comparable across surveys. Among the adults, the 2004 World Health Survey[1] established that the daily tobacco smoking prevalence in Kenya was 10.8 per cent. The prevalence rates were higher for adult men (at 21.2 per cent) compared to their female counterparts (at 0.9 per cent). More recent results from the 2008-09 Kenya Demographic and Health Survey (KDHS) (GOK, 2010) show that 18 per cent of men aged 15-49 years use tobacco products, while 18 percent smoke cigarettes.

Among the youth, prevalence rates are slightly higher. The 2001 Global Youth Tobacco Survey[2] (GYTS) established that about 13 per cent of students (14.2% for male students and 11.4% for females) currently use some form of tobacco[3]. Similarly, the survey found that 7 per cent of the students were currently smoking cigarettes (8.7% male and 4.7% female) while about 9 per cent of them were currently using some other form of tobacco. It was established that 27.2 per cent of the youth were exposed to smoke in homes while 43.2 per cent of the students were exposed to smoke outside homes. A follow- up GYTS done in 2007 showed slight increase in youth prevalence rates with 15.1 per cent of students (14.9% for male students and 14.5% for females) currently use some form of tobacco; 8.2 per cent of the students were currently smoking cigarettes (11.2% male and 5.2% female) while about 10.1 per cent of them were currently using some other form of tobacco.[4]

Following the signing and ratification of the WHO's Framework Convention on Tobacco Control (FCTC) in June 2004, Kenya enacted the Tobacco Control Act 2007 in October 2007. Article 6 of the FCTC on *"Price and tax measures to reduce demand for tobacco products"* requires parties to "*adopt or maintain measures which may include implementing tax and price policies on tobacco products so as to contribute to the health objectives aimed at reducing tobacco consumption; and prohibiting or restricting tax- and duty-free tobacco product".* However, progress on tobacco taxation has been very slow and the prioritization of tobacco taxation

1 See the WHO Report on the Global Tobacco Epidemic (WHO, 2009). Global Adult Tobacco Survey (GATS) is a household survey that tracks tobacco use prevalence, exposure to risk, second-hand smoke, cessation, risk perceptions, knowledge and attitudes, exposure to media and price as well as taxation issues.

2 Global Youth Tobacco Survey (GYTS) is a school-based survey of students aged 13–15 years that provides information on demographics, tobacco use prevalence, and knowledge and attitudes.

3 Was defined to mean the person consumed any smokeless or smoked tobacco product at least once during the last 30 days prior to the survey.

4 These GYTS figures were obtained from the WHO Global Tobacco Surveillance system (GTTS) which is a compilation of data from the Global Youth Tobacco Survey (GYTS), the Global School Personnel Survey (GSPS); the Global Health Professions Student Survey (GHPSS) and the Global Adult Tobacco Survey (GATS).

issues a bit low. Despite the fact that enabling provisions exist within the Tobacco Control Act 2007, there is apprehension among the tobacco control community that *"the government has failed to effectively use taxation as a tobacco control (or revenue generating) strategy"*(ATSA, 2010).

International evidence provides overwhelming support for the view that increasing taxation on tobacco products is one of the most effective measures to boost tobacco control (Hu et al, 2008). Although tobacco is addictive, numerous studies, performed in a variety of countries have shown that excise-induced increases in tobacco prices cause tobacco consumption to decrease (Walbeek, 2003). In addition, increasing tobacco taxes also increases Government revenue. In Kenya, tax increases at the rate of 10 per cent annum have been done in the past (2005/2006, 2006/2007, 2007/2008, 2008/2009) However, there has been no evaluation done to ascertain whether this tax increases have had the effect of reducing consumption or whether there is need for more substantial increases. In the 2009/2010 final year, there was no increase in taxation on tobacco products. Section 12 (a) and (b) of the Tobacco Control Act obligates the Ministry of Finance to use price and tax measures in furtherance of the objectives of the Act. In the last financial year (2009/2010), there was no increase in taxes on tobacco products. The tobacco control has perceived this action as an indication that the Government is backtracking on the provisions of the TCA. Section 7 of the TCA sets up a Tobacco Control Fund whose main source of funding is public budget allocations. However, in the financial year 2009/2010, there was no budgetary allocation for the Tobacco Control Fund leading to difficulty within the Ministry of Health in implementing tobacco control programs.

1.1 Study objectives

Drawing mainly from economics, the broad objective of this study is to analyze the nature of tobacco taxation in Kenya. The study has three specific objectives. First, we review the trends in the prices for tobacco products, their tax structure, and total revenue accrued to the government. Secondly, we determine the responsiveness of tobacco consumption to changes in prices and taxation. Finally, we review the global approaches to the tobacco epidemic through tax policies (comparing to Kenya's experience), outlining challenges, lessons and successes made in the process.

1.2 Study Approach

This study used several approaches in order to fulfil its objectives. It has relied heavily on data that is reported in WHO annual reports and the Statistical Abstract. This data has been intensively used to undertake econometric and statistical analysis that is reported in this report.

1.3 Structure of report

This report is organized as follows. Section one provides the rationale and scope of the study. Section 2 describes the structure of excise and tobacco taxes including the reforms that have been undertaken over time. Section 3 reviews the tobacco industry in terms of competition, production, consumption, prices and price elasticities. Best practices in tobacco taxation are discussed in section 4. The report is summarized in section 5, which provides conclusions and policy prescriptions.

2.0 Taxation of Tobacco and Tobacco Products

2.1 Cigarette Tax Design

Cigarettes in Kenya are subject to excise duty, value added tax and import duty. The VAT is levied at the point of sale. When VAT was introduced in 1990, the standard rate was 17 per cent but this was increased to 18 per cent in 1991. In 1995/6, the rate fell to 15 per cent but rose to 17 per cent in 1997/8. Later, it was reduced to 16 per cent and 15 per cent in 1998/9 and 1999/00. The rate was revised in 2000/01 to 18 per cent. The current rate of 16 per cent was introduced in 2003/4. In 2004, 2005 and 2006, import duty on cigarettes was 30 per cent of the value of the consignment. However, COMESA countries receive preferential rates of import duty. This study focuses of excise taxes since it is this tax that inflates the prices of tobacco more relative to other consumer products, providing the dual benefits of additional revenues and reduced consumption.

Apart from being imposed on cigarettes and tobacco, excise duties are also levied on juices, sodas, other non-alcoholic beverages, malted beers, non-malted beers, wine, spirits, mineral water, petroleum jelly, mobile cellular phones, other wireless telephone services and plastic shopping bags. According to Okello (2001), these commodities are taxed for three main reasons; (a) they are able to raise substantial revenue at relatively low administrative and compliance costs; (b) they are imposed to correct for negative externalities; and (c) they enhance the vertical equity of the tax system. Obviously, Kenya imposes excise tax on cigars and tobacco products, wine, spirits and beer to discourage their consumption due to their injurious effect on human health. Excise tax is imposed on plastic shopping bags to reduce their consumption as a strategy of ameliorating their effects on the environment. Otherwise, the imposition of excise taxes on juices, sodas, other non-alcoholic beverages, mineral water, petroleum jelly, mobile cellular phones, and other wireless telephone services does not seem to have an obvious rationale rather than for purposes of raising government revenue.

The excise tax system in Kenya has been in a constant state of reform, switching from specific rates to *ad valorem rates*, back to specific rates, and then, for some product classes, a mixture of ad valorem and specific rates (Gerson et al, 2010). A specific excise rate tax is charged per quantity or per unit of measure of an excisable product (for example Ksh 120 per litre of spirit) while an ad valorem excise tax is charged as a percentage of the value of an excisable product. The value of the product is measured by the manufacturer's price (e.g. 80 per cent of the manufacturer's price) or by the price paid by consumers (e.g. 70 per cent of the retail price). In Kenya, excise tax is imposed on the cost insurance and freight (CIF) determined in accordance with customs valuation. For locally manufactured excisable goods, the *ad valorem* rate is charged on the ex-factory selling price. All manufacturers, providers and importers of excisable goods and services pay excise duty. All manufacturers of excisable goods must apply to the Commissioner, domestic taxes for a manufacturing license, which is renewable annually.

Reform of the entire tax system proceeded in tandem with reforms of the structure of cigarette

and tobacco taxes. **Reform of cigarette and tobacco excise taxes has been guided by four main tax reform principles.** First, the taxes are being reformed by making them simpler to administer by keeping few domestic production points. Second, they are being made fairer by targeting products that are not consumed by the poor[5]. Third, reform aims at making them efficient by targeting consumption rather than production; and, fourth, the desire of excise tax reform is to generate an ample flow of revenue by targeting high total sales value.

Before the commencement of the Tax Modernization Programme in 1986, the tobacco excise tax regime in Kenya was specific but this changed to an *ad valorem* regime in 1991/2. Since 1991, the scope of excise duties was expanded to cover additional range of domestic goods as well as imported goods. This expansion was designed to cover the luxury goods element on wine, beer, spirits, mineral water, tobacco products, matches, luxury passenger cars and minibuses. Similarly, cigarettes, tobacco products and matches were made subject to VAT at the standard rate of 18 per cent in addition to excise tax. The expansion of excise taxes to imports transformed excise tax from a tax on domestic production to a tax on consumption. Unfortunately, the elimination of price controls in 1993 and the conversion of excise tax from specific to *ad valorem* created a loophole for tax leakage. Manufacturers would cheat on valuation by excluding certain cost elements such as distribution costs in order to evade some portion of tax. The Ministry of Finance responded to this by providing a more elaborate definition of value for excise duty purposes that included all the direct costs such as packaging, advertising, and distribution.

According to Karingi et al (2005), the regime switch from specific to *ad valorem* did not remove discretion as would have been expected. Similarly, the reform measures failed to meet the tax simplicity principle that was one of the primary objectives of tax reform. Specifically, cigarette taxes in the country continued to be complex by having multiple tax rates. For example, prior to 1993/94, cigarettes were subject to three different price-based excise duty brackets. However, in 1993/94, this was changed and linked to two length-based bands. Furthermore, the excise duty on cigarettes was rationalized to a uniform rate of 135 per cent in 1997/98. This rationalization was aimed at entrenching the principle of simplicity in the collection of domestic taxes, controlling smuggling, reducing tax evasion and sealing loopholes for under-declaration of production.

The country reverted back to specific excise duties in 2003/4. A hybrid excise duty of a minimum specific tax and an additional *ad valorem* rate was introduced on both domestic and imported cigarettes. The specific duty regime consisted of four bands, equivalent to an effective rate of 110 per cent. In June 2005, the excise tax bands were revised by increasing the rates averagely

[5] *This argument, which is based the canon of fairness, has come under serious criticism on grounds that the health effects of smoking do not discriminate individuals on the basis of income. So, the poor should not be taxed less but taxes should be levied uniformly to discourage consumption among all consumer groups.*

by 10 per cent across the board. In 2007, there was a shift away from the use of ex-factory price in determining excise tax rates to one based on cigarette length and packaging. The Finance Act of 2000 redefined the four classes of products based on both the retail selling price and the type of cigarette. Table 1 shows the various tax bands, definitions and applicable excise duty rates before and after the 2008 amendments. Cigars and loose tobacco are taxed at a straight advalorem rate of 130 per cent.

Table 1: Tax rates for cigarettes in Kenya

Category	Pre-2008 definition	Duty payable	Post 2008 definition
Category A	Cigarettes – RSP up to Ksh 1,500 per 1,000 sticks	495	Plain cigarettes or plain cigarettes RSP of up to Ksh 2,500 per mille
Category B	Cigarettes – RSP between Ksh 1,501 and Ksh 2,500 per 1,000 sticks	781	Soft Cap cigarettes of <72mm or soft cap cigarettes with RSP of Ksh 2501 – 3,500 per mille
Category C	Cigarettes – RSP between Ksh 2,501 and Ksh 3,500 per 1,000 sticks	994	Soft cap cigarettes of >72 mm or soft cap cigarettes with RSP of Ksh 3501 – Ksh 4,500 per mille
Category D	Cigarettes – RSP over Ksh 3,500 per 1,000 sticks	1696.20	Hinge lid or RSP of more than Ksh 4,500 per mille

(RSP means Retail Selling Price, 1 mille equals 1000 sticks)
Sources: KRA website(www.kra.go.ke); Gerson et al (2010)

In a recent IMF assessment report (Gerson et al, 2010), the current structure for tobacco products has been criticized as being complex and lacking in policy rationale for the design. The report notes that the simplest and most transparent method to achieve a consistent tax based on the volume of tobacco can be a tax based on the weight of the product applied to both cigarettes and cigars.

2.2 Tobacco Tax Administration

The imposition, control and collection of excise duties (including tobacco and cigarette taxes) in Kenya is governed by the Customs and Excise Act (Cap 472). Whereas excise tax policy originates from the Ministry of Finance, the administration of excise tax lies with the Customs and Excise Department of the Kenya Revenue Authority, which is headed by a Commissioner. The KRA achieves its mandate by deploying its officers to specific firms or requiring the officers to make regular visits to firms that produce excisable products. These officers are deployed to the firms for purposes of supervising the production process, entry of goods into the firm, the delivery of finished goods for sale or for transfer to other bonded warehouses. The officers are obliged to approve any deliveries and transfers.

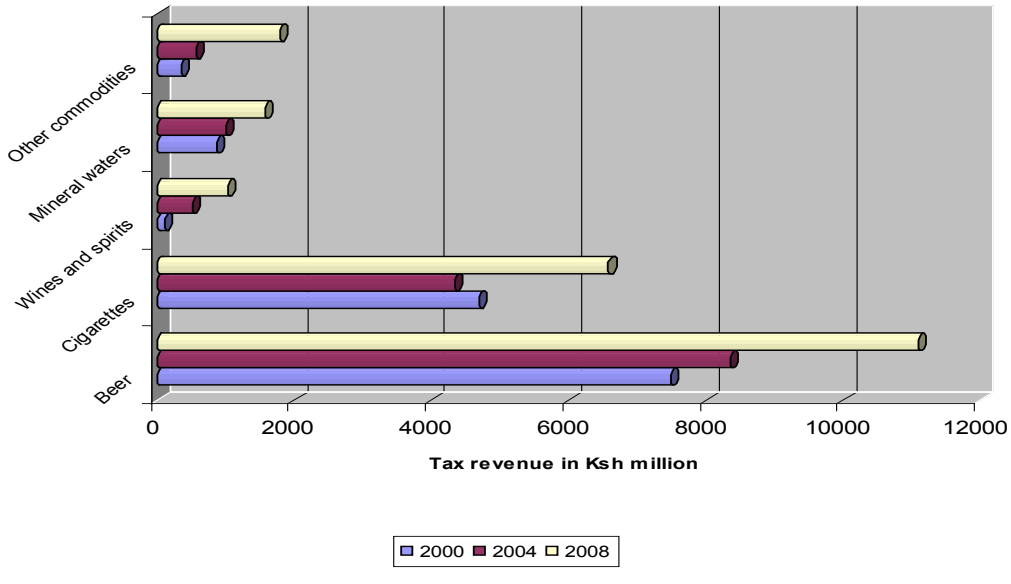
Strict controls are imposed on plants that manufacture excisable goods, the production and sale of the goods. Plants that manufacture excisable goods are subjected to controls including the requirement that they must be licensed annually by the Commissioner of Customs and

Excise Taxes. Such firms must also obtain a license from the Commissioner in the event that they intend to relocate, change ownership, or shift to the manufacture of other excisable goods. Once the application for a license has been approved, the applicant must provide the Customs and Excise Department must provide details of type of plant and its entire layout, the use of each building, room and equipment. The manufacturer should also prepare daily records of materials purchased, total production and sales, counter-checked by the revenue officer. These records are aggregated on monthly basis together with the excise account and submitted to the Customs and Excise department.

2.3 Cigarette tax revenues

Figure 1 shows the tax yield by commodity. In terms of excise tax revenue shares, there are two main observations that can be made. First, the current revenue structure of excise taxes is dominated by beer and cigarette taxation. These two sources combined account for over 80 per cent of excise tax revenue. Second, excise tax revenue has continued to grow very fast. Between 2000 and 2008, excise tax revenue expanded by 6.8 per cent annually. Between 2000 and 2008, the share of beer taxes has fallen from 55 to 50 per cent whereas the share of cigarette tax yield has fallen from 35 per cent to 30 per cent. The falling shares of tobacco and beer tax revenues has been compensated by increasing shares of wines and spirits, mineral waters and other commodities. The share of wines and spirits tax yield has increased from 1 per cent in 2000 to 5 per cent in 2008 while the corresponding increases in mineral water and other commodities were 6 per cent to 7 per cent and 3 per cent to 8 per cent respectively.

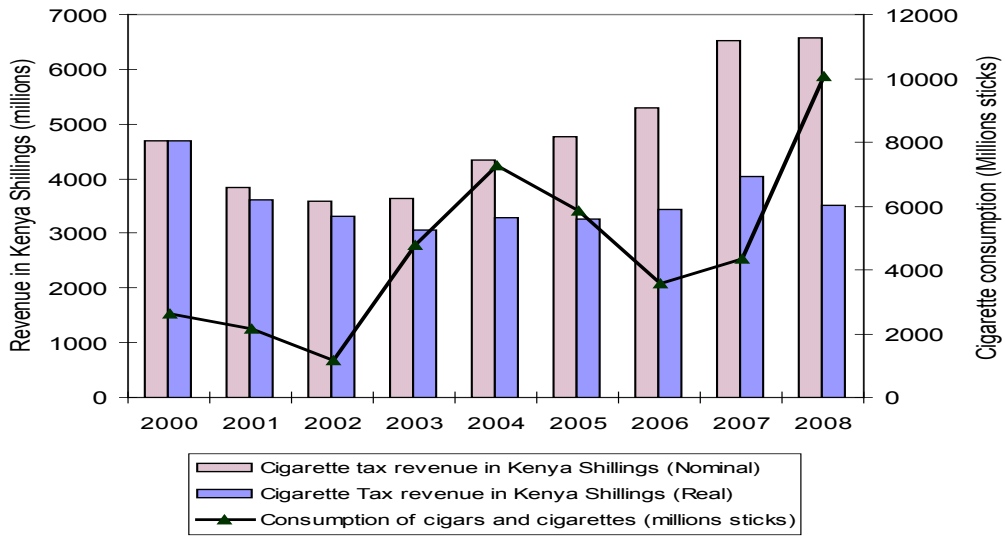
Figure 1: Excise Revenue by commodity



Source: Computations using data from GOK (various) Statistical Abstracts

Figure 2 shows the trends for nominal and real tobacco tax revenue. The curve for cigarette consumption is superimposed on the graphs to assess the correlation of the trends. It is expected that periods that experienced high tobacco consumption will also report high excise taxes and vice versa. Between 2000 and 2003, there was a 29 percent decline in nominal tobacco revenues from Ksh 4698 million to Ksh 3578 million. This decline is partially explained by the decline in tobacco consumption (from 2645 million sticks in 2000 to 1179 million sticks in 2002) and the fall in the affordability of tobacco products (the affordability index declined from 527 in 2000 to 509 in 2002). Between 2002 and 2004, there was a sharp rise in tobacco consumption but the increase in cigarette tax revenues was not commensurate. Nominal tax revenue maintained a continuously upward trend between 2003 and 2008 but this was not mimicked by cigarette consumption which fell rapidly between 2004 and 2008 and then regained a growth momentum between 2006 and 2008.

Figure 2: Cigarette tax revenues



Source: Computations using data from GOK (various) Statistical Abstracts

Generally, the trend in cigarette tax revenue (nominal) is not in synchrony with the trend in cigarette consumption. Ideally, the two trends should be positively correlated so that periods with high cigarette consumption will be matched with a correspondingly higher yield in taxes. From a policy perspective, this suggests three things. First, that the design and administration of excise duties is problematic. Second, that the tax system is exposed to the problem of smuggling and tax evasion including sales of non-duty products. Third, cigarette tax revenues have been negatively affected by the so-called Olivera-Tanzi effect. This effect suggests that inflation reduces the real value of taxes implying that Kenya's tax designers should prioritize the indexation of taxes in order to insulate the tax system from the effects of inflation.

3.0 The Tobacco Industry

3.1 Market Structure

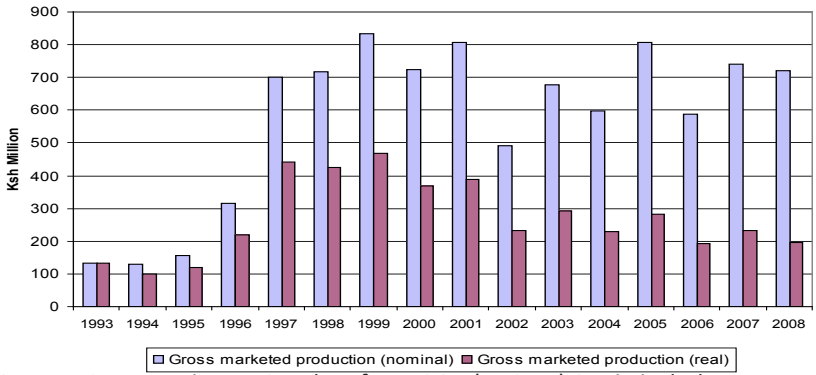
Since the 1970s, the BAT was the sole producer of cigarettes in Kenya. However, in 1988 Mastermind was established (with a launch of Supermatch in 1989) while Phillip Morris and RJ Reynolds International entered the market in 1996. Cut Tobacco was established in 1995 to import cigarettes for re-export to Somalia and Ethiopia but the company closed in 2003. Currently, the tobacco market remains oligoplistic, dominated by few producers (sellers) engaging in never ending rivalry for market share. Currently, the largest market share is held by BAT (78 per cent), followed by Mastermind Tobacco (20.3 per cent). The remaining 1.7 per cent is held by other small manufactures including Japan Tobacco and Phillip Morris. BAT and Mastermind benefit from strong brands and wide distribution networks.

In terms of cigarette type, filter cigarettes occupy about 84 per cent while plain cigarettes occupy 16 per cent of the market in 2006. The leading brands (and their respective market shares and manufacturers) are Sportsman (30.4 per cent, BAT Kenya), Supermatch (15.3 per cent, Mastermind Kenya), Rooster (11.3 per cent, BAT Kenya), Embassy (5.9 per cent, BAT Kenya), Sweet Menthol (4.3 per cent, BAT Kenya), Rocket (2.6 per cent, Mastermind Kenya).

3.2 Tobacco Production

A large proportion of cigarettes consumed in Kenya are produced locally using tobacco leaf that is grown locally. However, tobacco growing is not among the ten leading products that contribute a large proportion to agriculture sector's marketed production. The marketing of green leaf in Kenya has been highly variable as can be seen from figure 3. In nominal terms, the volume of marketed tobacco leaf increased from Ksh 132.2 million in 1993 to Ksh 834 million in 1999 (or 0.4 per cent of gross marketed production), a growth of 6.3 times. Comparatively, the marketed tobacco leaf in real terms between the same period increased from Ksh 132.2 million to Ksh 466.7 million, a growth of 2.5 times. However, between 2000 and 2008, the trend in marketed production was cyclical with an increase in one year being followed by a recession the following year.

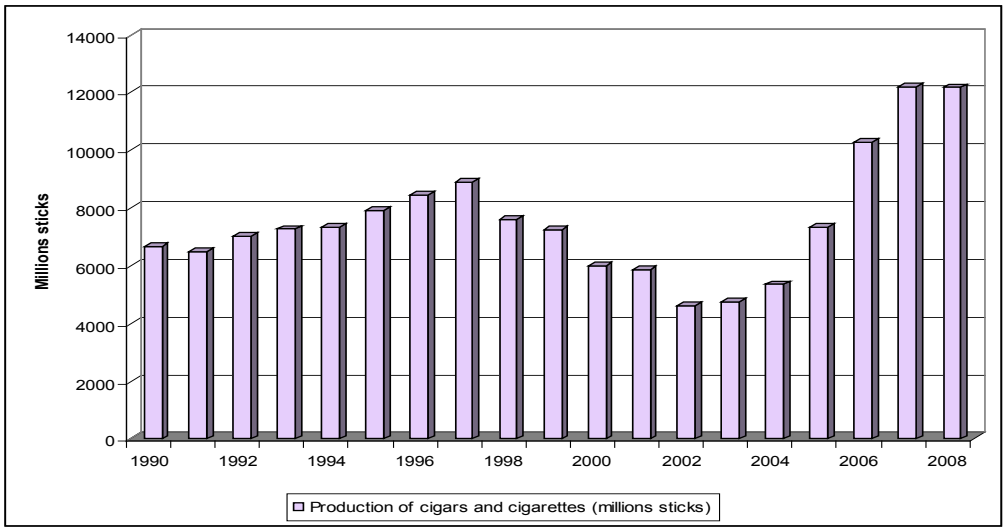
Figure 3: Gross marketed production of tobacco (1993=100)



Source: Computations using data from GOK (various) Statistical Abstracts

In 2008, Kenya produced 12 billion sticks of cigars and cigarettes compared to about 6.6 billion sticks in 1990 (See figure 4). For the most part of the 1990's, tobacco production increased substantially due mainly to two initiatives. First, Mastermind succeeded in developing export markets in countries such as South Africa and the Democratic Republic of Congo. Second, BAT closed their manufacturing operations in Uganda and Tanzania and centralized them in Nairobi. Third, Cut tobacco also joined the market in 1999. However, beginning 1997, production continually shrunk from 8.5 billion sticks to settle at 4.8 billion in 2003. Since 2003, volume has maintained an upward trend expanding by 156 per cent between 2003 and 2008.

Figure 4: Production of cigars and cigarettes

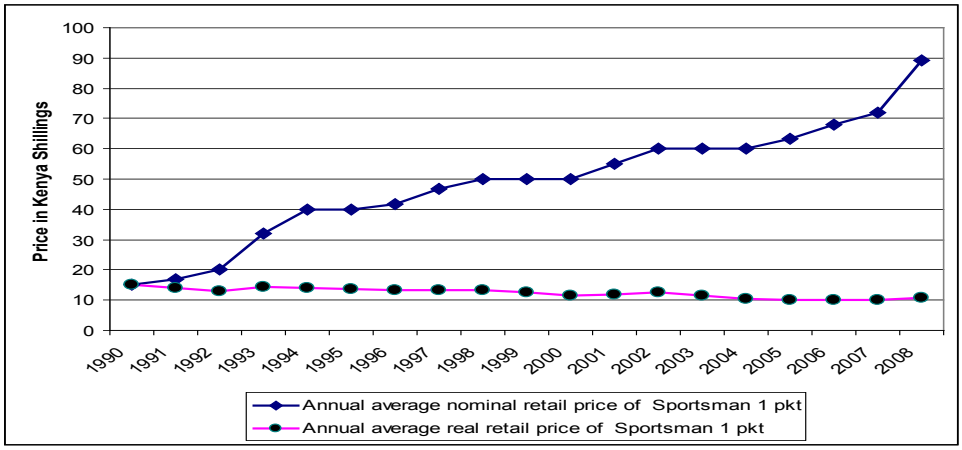


Source: Computations using data from GOK (various) Statistical Abstracts

3.3 Cigarette Prices

In order to assess the direction and magnitude of changes in the prices of tobacco products, annual average nominal prices of a packet of sportsman (Kenya's most popular brand) was obtained from the Statistical Abstracts, which are published by the Kenya National Bureau of Statistics. To correct the data series for inflation between 1990 and 2008, the annual average nominal prices of a packet of sportsman were deflated by the CPI taking 1990 as the base year. The series that is derived is the annual average real prices of a packet of Sportsman.

Figure 5: Real and nominal prices of Sportsman (1990=100)



Source: Computations using data from GOK (various) Statistical Abstracts

Figure 5 reveals a wide gap in real and nominal prices of a packet of sportsman. The nominal price for a packet of sportsman first increased, primarily between 1990 and 1994, then flattened out before resuming the growth momentum from 1997 to 2008. Overall, the nominal price for a packet of sportsman grew by 8% annually between 1990 and 2008 (table 2). Unlike the graph for nominal prices, the graph for real price of sportsman gently slopes downwards. During the 1990 – 2008 period, the real price of one packet of sportsman grew by -2.2 per cent annually. This implies that in real terms, the price of one packet of sportsman actually became cheaper in 2008 relative to 1990. It is notable that whereas there was an average annual increase of 8 per cent in the nominal price of a packet of sportsman, the real price shrunk by 2.2 per cent.

Table 2: Growth in prices of basic commodities vs. prices of cigarettes and beer

Item	Growth in nominal price (%)	Growth in real price (%)
Cabbage (1 kg)	5.7	-4.3
Bread, White (1/2 a loaf)	7.8	-2.3
Kerosene (1 litre)	11.9	+1.8
Maize flour (1kg)	7.4	-2.7
Kales-Sukumawiki (1kg)	7.5	-2.6
Cigarettes Sportsman (1 packet)	8.0	-2.2
Beer Tusker (0.5 litre)	9.2	-0.8

Source: Computed from log trend estimates using both constant and nominal figures.

Table 2 shows average annual growth in prices of some selected basic commodities as well as the growth in the price of cigarettes and beer, which are luxury goods. The commodity with the fastest annual growth in nominal price is kerosene while the item with the least annual growth in price was the cabbage. Similarly, the average annual growth in the nominal price of a packet of sportsman is lower than the average annual growth in the price of kerosene, which is a basic commodity but very close to the increases in the price of bread, maize flour and kales. In real terms, it is only kerosene that became more expensive - all other items including beer and cigarettes became cheaper between 1990 and 2008 since their real prices shrunk. The commodity whose real price shrunk least was beer while the commodity whose price shrunk fastest was the cabbage. It is surprising that public policy has extended similar treatment to cigarettes as is the case for basic commodities such as bread, maize flour and Sukuma Wiki yet these basic commodities constitute about 50 per cent of the consumers' budget and therefore are more important for poverty alleviation. Tobacco and alcoholic drinks constitute only about 2 per cent of the consumers' budget. In a similar vein, Kerosene seems to have received worse treatment than cigarettes yet fuel and power constitute about 4% of the households budget in Kenya.

Between 1990 and 2008, the GDP per capita in Kenya decreased from Ksh 8360 in 1990 to Ksh 6685 in 2008, a decline of 20 per cent. However, this decline in real per capita GDP was less than the 28 per cent increase recorded in the price of one packet of sportsman. This helped to improve the affordability of cigarettes since Kenyans' consumers incomes increased much faster than the price of cigarettes. Figure 6 illustrates the affordability of cigarettes. This is done by dividing the real GDP per capita with the average real price of sportsman. The figure shows that although affordability has been increasing over time, the trend has been quite erratic. The affording index attained the lowest values during the period 1992 to 1997 due to poor economic performance which adversely affected per capita incomes. However, the index improved in 1998 and continued to increase until 2007 when the trend was reversed. The reversal was mainly attributed to poor economic resulting from the violence that followed the 2008 disputed elections.

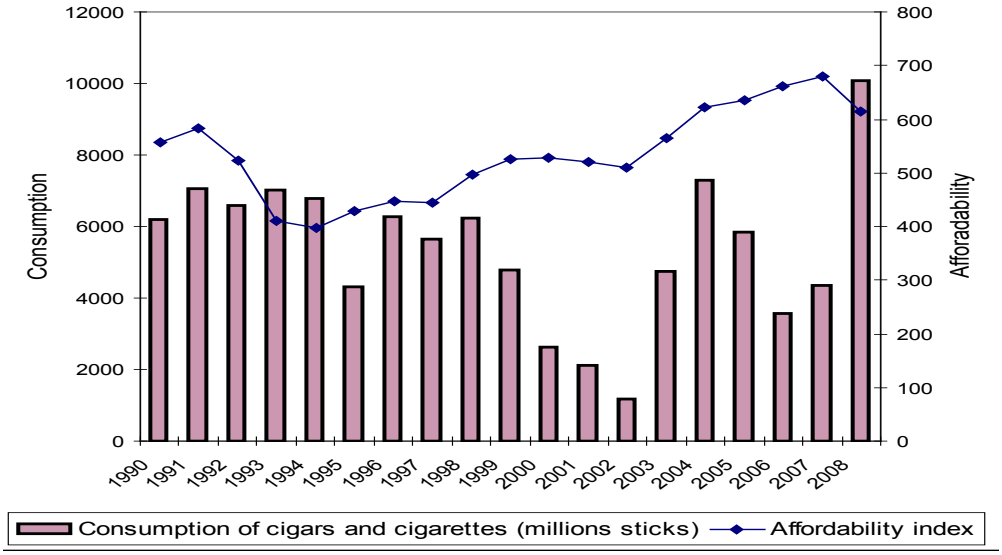
Figure 6: Affordability of cigarettes

Source: Computations using data from GOK (various) Statistical Abstracts

3.4 Consumption of Cigarettes

Consumption of cigarettes and cigars was 6187 million sticks in 1990, which increased to 7059 million sticks in 1991 buoyed by a rising affordability of cigarettes. Between 1991 and 1995, there was a 38 per cent decline in consumption while affordability index fell from 583 to 429. The falling trend was shortly reversed in 1996. Consumption fell again in 1997 but rose shortly in 1998. There were two periods that pose surprising trends: 1998 to 2002 and 2004 to 2007. During these two periods, the trend in consumption declines despite an upward trend in the affordability index. Again, despite a fall in excise tax rates in 2001, the effect on volumes is difficult to discern from figure 7. This suggests that there are other factors that overwhelm affordability in determining the consumption of cigarettes. One of these other factors includes addiction. When smokers get addicted to cigarettes, changes in their affordability may not necessarily lead to a decline in consumption.

Figure 7: Consumption of cigars and cigarettes in Kenya, 1990-2008



Sources: Computations using data from GOK (various) Statistical Abstracts

It is believed that non-duty paid sales occupy a sizeable share (about 20 per cent) of the local market. For instance, an ERC report of 2007 suggests that there has been an increase in non-duty paid volumes between 2000 and 2002 due to growing availability and quality of such products. The source markets of these are Tanzania and the false declaration of cigarettes for export which ultimately enter the Kenyan market. It is expected that sales will continue to suffer as a result of ongoing growth in the illicit trade in cigarettes, with these products attracting a growing number of consumers due to their lower price.

Overall, figure 7 shows that consumption of cigarettes has been highly variable. An analysis of per capita consumption figures reflect the same feature. For instance, per capita consumption falls sharply from 258 sticks in 1990 to 37 sticks in 2002 before rising sharply again to 263 sticks in 2008. This feature is not very good for planning (tax planning, production planning) because high variability makes it difficult for planners to clearly predict the future.

3.5 Cigarette Price Elasticities

Studies on cigarette price and income elasticities in Kenya are few. In this section, we review two studies that were conducted by Okello (2001) and Kiringai et al (2002). Since one of the problems experienced in estimating cigarette demand equations is the data, we explore the types of data that were used in the previous studies. Okello (2002), used time series data covering the period 1981/82 to 1995/96. Data on filter and plain cigarettes (prices, sales) was obtained from the Ministry of Finance database. This database is updated with data that is obtained from the main cigarette manufacturers. Quantity demanded was represented by the sales made to distribution agents by the manufacturers. The price used was the price the recommended retail prices inclusive of cost, all trade margins and all taxes. Kiringai et al(2002) used monthly data from BAT on prices and quantities sold from 1981 to December 2000. A sample of five brands (representing 45%) of the total sales of domestic production were used in the study.

In our study, we lacked monthly data from the manufacturers and our efforts to get such data from the Kenya Revenue Authority were not successful. We used annual data on cigarette consumption, the retail price of one packet of sportsman, population, CPI, GDP. This data was obtained from the Economic Surveys and Statistical Abstracts produced by the Kenya National Bureau of Statistics (KNBS). The long run equation included consumption of cigarettes (the dependent variable) and the price of one packet of sportsman cigarettes, population, lagged consumption and a dummy. We used the dummy to stabilize the model. Due to noise in the data used, we identified years that had any outliers in the data on consumption that could not be properly accounted for. For such years, we assigned them a value of 1 and 0 otherwise. The short run equation had the same variables as the long run equation apart from the fact that the data was differenced once. Similarly, we added a trend variable to the equation. In the reported results, we have not included an income variable (such as GDP, GDP per capita) because the inclusion of the variable in the estimated equations always yielded non-sensible results.

Table 3: Price and Income Elasticities for cigarettes

Study	Data type and range	Price elasticities Short run	Long Run	Income elasticities Short run	Long run
Okello (2001)	Monthly data from 1981/82 to 1995/96	Filter cigarettes (-0.4) Plain cigarettes (-0.35)	Filter cigarettes (-0.36) Plain cigarettes (-0.26)	Filter cigarettes (0.48) Plain cigarettes (-0.39)	Filter cigarettes (0.47) Plain cigarettes (-1.92)
Kiringai et al (2002)	Monthly data from 1981 to 2000	All cigarettes (-0.49)	All cigarettes (-1.78)	All cigarettes (0.145)	All cigarettes (0.775)
Current study[6]	Annual data from 1990 - 2008	All cigarettes (-0.28)	All cigarettes (-0.42)		

The current results in table 3 show that the consumption of cigarettes in Kenya is price inelastic. In the long run, a 10 percent increase in the prices of cigarettes will reduce consumption by only 4.2 per cent. However, in the short run, a 10 per cent increase in the price of cigarettes reduces consumption by only 2.8 per cent. The price responsiveness in the short run is lower than is the case in the long run because consumers take time to adjust to changes in the market. So, any short run changes in the price do not affect consumption as much as is the case in the long run. From a policy perspective, cigarettes in Kenya are price inelastic implying that further increases in cigarette prices will not reduce consumption significantly.

[6] *Detailed results are presented in annexes 1 and 2*

4.0 Best Practices in Tobacco Taxation

Policy makers in Kenya as well as tobacco control advocates are currently concerned about three main issues regarding tobacco taxation. First, there is intense debate whether it will be prudent to continously and systematically adjust the price of cigarettes upwards through taxation. Second, there is a provision in the Tobacco Control Act 2007 that established a Tobacco Fund. Although it was anticipated that the Government would allocate some money to the funds for tobacco control activities, this has not yielded much fruit. Third, Kenya's excise tax regime continues to receive criticism that it is not well designed. These issues will guide us as we review tobacco excise taxation practices in Kenya while comparing them with other countries.

4.1 Tax Share in Cigarette Price

Two recent WHO (2009 and 2010) reports provide estimates of tobacco prices and the respective tax shares in almost all countries. Currently, tobacco excise taxes (or other taxes uniquely applied to tobacco products) in nearly all countries account for less than 70 per cent of retail prices, with taxes in most countries accounting for less than half of retail prices. On average, at the global level, the share of total cigarette taxes in the price of cigarettes is about 50 per cent. The average price of cigarettes is about US$2.53 per pack. The average price and tax share in the lower-middle income group and (US$1.73/pack and 45 per cent respectively) and in the low-income countries (US$1.06/pack and 39 per cent respectively) are below the global average.

Table 4 gives comparative data for cigarette prices and the proportion of taxes of the cigarette price in selected countries. It is evident that prices of cigarettes in Kenya, as is the case in developing countries, are low compared to developed countries. For example, the price of a packet of 20 cigarettes in Singapore is five times the price prevailing in Kenya.

Country	Most sold brand of cigarettes			
	Price of a 20-cigarette pack in US$ at official exchange rates		Total tax as a % of price	
	2007	2008	2007	2008
Botswana	2.14	2.33	39	48
Brazil	1.27	1.03	60	58
Burundi	0.45	0.49	50	54
China	0.68	0.73	36	36
Denmark	6.31	6.24	73	72
Egypt	0.45	0.49	55	59
Ghana	-	1.16	63	29
India	1.73	1.65	60	55
Kenya	1.91	1.54	42	55
Malawi	0.46	1.03	63	51
Malaysia	2.48	2.60	45	48
Mauritius	2.13	2.05	82	81
Netherlands	5.89	6.12	73	76
Nigeria	1.70	1.89	32	32
Qatar	2.63	1.65	63	62
Rwanda	0.92	0.89	59	57
Singapore	7.08	8.06	76	67
South Africa	2.31	2.04	48	45
Uganda	-	0.51	-	63
United Arab Emirates	1.63	1.77	33	31
Tanzania	1.06	1.09	35	35
United States of America	-	4.58	-	37
Zambia	1.56	1.14	60	44

Source: WHO (2009) Report on the Global Tobacco Epidemic, Geneva, Switzerland

In South Africa, excise tax activism and tobacco control advocacy since the 1970's have been significant push factors for excise tax increases in the country. This[7] was spearheaded by a vocal tobacco control lobby[8] led by the Medical Research Council (MRC) and the National Council Against Smoking (NCAS). The tobacco control lobby wanted the government to earmark a proportion of the tobacco excise taxes for general health promotion strategies. They pointed out that that the real excise tax rate had been decreasing during the 1970's, and even faster during the 1980's. Even though this point was well taken in the Department of Health, The Ministry of Finance did not increase the tax for two reasons. First, they were fears that increasing the tax would stimulate smuggling. Second, it was argued that an increase in the tax might, in fact, decrease government revenue, because the tax-induced price increase would cause a sharp reduction in demand. As a rule, the South African Government does not earmark revenues because of the fact that earmarking distorts the prioritization of government policies, and could lead to economic inefficiency in the spending of these funds.

In the early 1990's, after the ban on the ANC had been rescinded, and negotiations for a democratic transition were taking place, the tobacco control groups started lobbying the ANC for stricter tobacco control measures, including rapid tax increases. The lobbyists found support in the Minister of Health who had the full support of the president-to-be. After the Minister of Finance announced of the 50 per cent tax proportion of the retail price, the tax was increased by only 25 per cent in 1994 but the tax was increased by substantially greater percentages in subsequent years. The industry reacted negatively to these tax increases. They argued that tobacco was already the most highly taxed product so that large tax increases will spur smuggling, they predicted a reduction in consumption, retrenchment of workers.
The establishment of the Economics of Tobacco Control Project at the University of Cape Town strengthened the lobby's efforts. The project provided empirical estimates of the revenue losses accruing to the government as result of the falling real excise tax. These, plus other results, were used by the lobbyists to counter the industry's arguments. The tobacco control became more dependent on communication of information, results, experiences, especially in South Africa to influence policy makers.

In Kenya, the response by the Ministry of Finance to tobacco control efforts has been mixed. The ATSA Report notes that progress on tobacco taxation appears to be very slow. It observes that the Ministry supported tobacco control in Kenya by increasing taxes on tobacco products by 10 per cent each year between 2007 and 2009. However these increases did not translate into price increases that could contribute to reduced consumption as they were effectively absorbed by the Tobacco Industry. Further in 2009/2010 budget, there was no increase for the

[7] *WHO Regional Office for Africa (AFRO) recommends that countries increase tax rates for tobacco products to be at least 70% of retail prices and ensure that they are adjusted periodically to keep pace with inflation and rise faster than consumer purchasing power. It is also recommended that countries strengthen tax administration to reduce the illicit trade in tobacco products.*

[8] *Lessons from South Africa are borrowed from Walbeek C van (2003)*

first time in 3 years meaning that the priority of tobacco taxation may be low. For instance, the Parliamentary Finance Committee made several unpopular changes as contained in the Finance Act, No. 10 of 2010). These changes led to (a) a more complex tobacco tax structure, (b) reduced cigarette prices thus negating the objective of making cigarettes less affordable and (c) loss in cigarette tax revenue accruing to government. The powers of Parliament to change tax policy is likely to become stronger given the immense powers that the Kenyan Parliament has in the 2010 Constitution. It is important to note that whereas Section 7 of the Tobacco Control Act establishes the Tobacco Control Fund, this is yet to be operationalized.

4.2 Tobacco Tax Earmarking

One of the recent innovations in tobacco taxation is the hypothecation or earmarking of tobacco tax revenues for spending on specific activities. Earmarked taxes help governments to increase taxes as a way of promoting public health and covering the social costs resulting from tobacco smoking and tobacco use. Prior to this earmarking, health financing has been mainly through out-of-pocket payments, private philanthropies, mutual associations and social insurance plans. Earmarking is usually effected through the passage of a law, otherwise, it is termed dedicating. Dedicating is a mere commitment by the government to set aside revenues from tobacco taxes for a specified purpose. Earmarking is usually designed in two different ways. First, it can be designed to have either a strong or weak link between the tax and the expenditure it finances. When it is designed to have a strong link, a large proportion of the expenditure is devoted entirely in financing a particular expenditure. However, only a small portion of the revenue is applied to finance the expenditure in question. Second, it can be designed to be either narrow or broad depending on the type of expenditure benefiting. Broad earmarking is where the spending program is broadly defined (e.g. health, education) whereas specific earmarking is where the spending is narrowly defined (e.g. smoking prevention). Earmarking has been criticized for introducing rigidities in the budgetary process that limit the use of funds for alternative purposes.

Table 5: Countries earmarking tobacco tax revenues by region

Region/country (no. of countries in brackets)	Link between tax and spending program	Type of spending program
Africa (3)	**Weak**	**Broad**: Youth, sports and recreation (Madagascar), University Hospital of Brazzaville (Congo), health (Comoros)
Central and South America (9)	**Weak**	**Broad:** Health (El Salvador, Guatemala, Jamaica), education, social and old age security (Costa Rica), sports (Colombia), debt canceling and Anti-Cancer Commission (Uruguay), agriculture, including subsidies to tobacco producers (Argentina), emergency relief (Paraguay), **Narrow**: Oncologic Institute (Panama)
Europe (10)	**Weak**	**Broad** spending examples: health, social security, culture **Narrow** spending examples: smoking prevention, treatment of tobacco related diseases (Finland, Iceland, Poland, Serbia, and Switzerland)
North America (U.S.A) (36)	**Weak**	**Federal:** Broad (children's health insurance policy) **States:** Broad in all states. Often revenues are shared among spending programmes according to predetermined percentages. Spending examples: health, education, sports and recreational activities.
North Africa and Middle East (7)	**Weak**	**Broad:** High Council for the Youth (Jordan), Solidarity National Fund (Tunisia) **Narrow:** Tobacco control and treatment of tobacco diseases (Yemen), tobacco control (Djibouti, Iran and Qatar), health Insurance for students (Egypt)
South East Asia (3)	**Weak**	**Broad:** Health (India, Nepal, Thailand), social security (India)
Western Pacific (6)	**Weak**	**Broad**: Health (Korea, Mongolia, Philippines), education (Marshal Islands), railways and forest special service accounts (Japan) **Narrow**: tobacco control (Tuvalu)

Source: WHO (2010)

Currently, earmarking of tobacco taxes for health purposes is practiced by more than 20 countries in the world. As seen from the table, most of these programs have a weak link between the tax and the expenditure it finances. One of the models that has not yet been applied is earmarking tobacco taxes to help tobacco farmers and those employed in the manufacturing of tobacco products to substitute crops or undergo retraining so that they can shift to alternative economic activities. It has been argued that tobacco tax increases that are earmarked for anti-tobacco media campaigns, prevention programs, subsidization of tobacco cessation products and programs, and other activities to reduce tobacco use, generate even larger reductions in tobacco use and improvements in health than the tax increase alone.

The model applied by Thailand in tobacco tax earmarking has received international recognition (WHO, 2010). The country enacted the Health Promotion Foundation Act, which established the ThaiHealth Promotion Foundation. The Foundation receives 2 per cent (or US$35 million per year) of the total national tax revenue on alcohol and tobacco products and spends these on supporting groups and organizations that are already working on public health issues. The council reports directly to the cabinet and parliament each year.

4.3 Choice Between Uniform and Differential Rate System

As discussed in section 2.1, Kenya's excise tax design has fluctuated between uniform rates and differential rates in an ad hoc fashion. Before 1993/94, cigarettes were subject to three different price-based excise duty brackets but this changed in 1993/94 to two length-based bands. In 1997/98, excise duty on cigarettes was rationalized to a uniform rate of 135 per cent. In 2003/4 the country reverted to specific excise duty regime with a hybrid excise duty defined by a minimum specific tax and an additional ad valorem rate on both domestic and imported cigarettes. The specific duty regime consisted of four bands, equivalent to an effective rate of 110 per cent. In June 2005, the excise tax bands were revised by increasing the rates averagely by 10 per cent across the board. In 2007, there was a shift away from the use of ex-factory price in determining excise tax rates to one based on cigarette length and packaging. The Finance Act of 2000 redefined the four classes of products based on both the retail selling price and the type of cigarette.

According to the WHO (2010), 33 out 155 countries impose a differential excise tax system, and among these, 21 countries levy a tiered specific rate, including large cigarette consuming countries such as Brazil, Egypt, India, Indonesia, Indonesia and the Philippines; 6 countries including Bangladesh, levy a differential ad valorem excise; and 6 countries including China, Pakistan, Russia, Ukraine levy a differential mixture of both excises. However, the global trend is for governments to simplify their excise tax systems. A unified system taxes all cigarettes and tobacco products at the same level. It has been proven that the imposition of a unit rate reduces incentives for substitution among different brands, reduce non-compliance and eliminates incentives for various pricing strategies by manufacturers to reduce tax liability.

Box 1: Experiences from earmarking tobacco taxes

The experiences of VicHealth and Healthway in Australia, ThaiHealth in Thailand and the Korean Health Promotion Fund show that earmarking of health promotion foundations or funds can greatly improve the health promotion activities in a country. They were created after intense and long-term effort from health promotion advocates. Here are some of the lessons learned in advocating for earmarking tobacco (and alcohol) taxes for health promotion funds or the creation of a health promotion foundation.

- The Finance Ministry, in particular, needs cogent logic on the economic benefits and public health good of raising and earmarking taxation
- An extensive community support network should be created, with high profile, articulate spokespersons, probably already part of bureaucracy. All actors should have agreed and common goals.
- Evidence should be available of the expected positive effect on health and the cost-benefit effectiveness of those effects in the local context. All expert information should be readily available. The main message is always that the extra tax will protect the community and strengthen public health
- Surveys should be undertaken to show public support for the initiative
- Draft legislation should be prepared, including the exact mechanism for collecting the levy and for managing it.
- Lobbying should involve arguments to convince the government that it must act, that such action is a bi-partisan, visionary step that will mark history.
- It is important to find common ground with those who might have economic losses, e.g., those who would lose tobacco sponsorship. Proponents of VicHealth stressed its goal of using funds to replace tobacco advertising and were thus able to win over potential adversaries.
- Lobbying activity should keep the time period short, for the tobacco industry has money and will use it to subvert support if given the time.
- ThaiHealth followed the model of VicHealth, feeling it was a more flexible and adaptable structure with legislative backing and a guaranteed source of income so as not to have to fight for its budget each year.
- From the experience of lobbying for ThaiHealth, it is suggested that a two-step process may be useful: first get cigarette tax increases, then go for earmarking for a health promotion foundation.
- The basic context of the creation of a Health Promotion Foundation has been seen to be strong leadership, stable government and a commitment to health. Evaluation once in place is essential for continued support
- There is a danger in the Master Settlement Agreement approach: direct agreement with the tobacco industry meant that there was no restriction on the tobacco industry's ability to promote tobacco products; in 2001 in the US, the tobacco industry spent $11.2 billion on advertising, the effect of which partially offset the effects of the higher prices.
- Alcohol taxation issues appear more complex than those for tobacco. While reducing consumption, they may not generate excess revenue. If large alcohol tax increases are politically unacceptable, one approach could be a progressive application of tax according to the amount of alcohol in the purchased item.

Source: Slama (2005)

5.0 Conclusions and Recommendations

5.1 Conclusions

Although Kenya has domesticated the provisions of the WHO FCTC by enacting the Tobacco control Act 2007, there is a feeling among the tobacco control community that the Government, through the Ministry of Finance, has not given sufficient priority to implementing tax measures that are aimed at reducing tobacco consumption. Given this ambivalence by the Ministry of Finance, Kenya's tobacco tax regime remains complex with four different tax bands based on the type of cigarette and the retail selling price. Similarly, the share of cigarettes taxes in excise tax yield has fallen from 35 per cent in 2000 to 30 per cent in 2008. Surprisingly, the trend in cigarette tax revenue does not mimic the trend in cigarette consumption raising the prospects of smuggling and tax evasion. Globally, Kenya is among the 33 that impose differential tax structures. However, these structures are becoming unpopular because they create incentives for substitution among different brands, they increase non-compliance and introduce incentives for various pricing strategies by manufacturers to reduce tax liability.

Analysis of cigarette prices shows that between 1990 and 2008, the nominal price of one packet of sportsman grew by 8 per cent annually while the real price shrunk by 2.2 per cent annually. This implies that in real terms, the price of a packet of cigarettes has become much cheaper in 2008 relative to 1990. However, public policies that affect prices seem to have accorded cigarettes similar treatment as has been extended to some basic commodities such as bread, maize flour and kales. These falling real prices of cigarettes have contributed a lot to the generally increasing affordability of cigarettes. However, it is surprising that the trend in affordability does not mimic the trend consumption, which is also highly variable with per capita cigarette consumption falling from 258 sticks in 1990 to 37 sticks in 2002. In 2008, the price of a packet of cigarettes in Kenya was US$1.91, which is higher than the average price in the low income countries (US$1.73) but lower than the global average (US$2.53) and the price existing in countries such as Botswana (2.33), Mauritius (2.05), South Africa (2.04) and Nigeria (1.89). Taxes account for 55 per cent of the cigarette price in Kenya, which is much lower than the recommended rate of at least 70 per cent.

Elasticity estimates show that cigarette consumption is price inelastic. In the long run, a 10 per cent increase in the price of cigarettes will reduce consumption by 4.2 per cent. In the short run, a 10 per cent increase in the price if cigarettes reduces consumption by 2.8 per cent. These results suggest that cigarette smokers respond faster to price changes in the long than is the case in the short run. This is why it is important to put in place complementary strategies like cessation programmes while at the same time implementing tax increases for tobacco products.

One of the recent innovations in tobacco taxation is the earmarking of tobacco tax revenues for spending on specific activities as one way of promoting public health and covering the social

costs resulting from tobacco smoking. About 20 countries in the world have implemented tobacco tax earmarking. However, Kenya is yet to adopt the policy of earmarking tobacco tax revenues.

5.2 Recommendations

Review the current tax structure: Evidence provided in this study has shown that Kenya's cigarette taxes are complex. We recommend that the system should be simplified by adopting specific cigarette tax regime. Specific taxes are superior to ad valorem. They are not subject to price changes, which makes them predictable thus protecting government revenue from industry price wars and manipulations. Because specific taxes are fixed, they lead to price changes for all products.

The Ministry of Finance should Shift cigarette taxation towards internationally accepted norms. Such practices include increasing tax rates for tobacco products to be at least 70 per cent of retail prices and ensure that they are adjusted periodically to keep pace with inflation and rise faster than consumer purchasing power. The Ministry of Finance should have a clear indexing principle in place upon which the excise tax (and other taxes) is regularly adjusted for changes in inflation.

The cigarette tax regime should be reviewed by taxing all tobacco products equally to prevent tobacco users from switching tobacco brands and types due to price differences. This is because all tobacco products have the same negative health impact on the users (including second hand smokers) and none is safer than the other.

Tax policy should not create opportunities for the tobacco industry to reduce their prices in order to avoid/ evade paying excise taxes. This creates a problem both for the Government as it receives less revenue and the public- as the tobacco products become increasingly affordable especially to the youth.

The Ministry of Finance should liaise with the Ministry of Public Health to develop mechanisms that result in earmarking tobacco revenue for Public Health Programs. This will create synergy between the revenue argument for tobacco taxation and the health argument. High income countries have found that the public will support tobacco tax increases more strongly when the tax revenue is directed towards tobacco prevention or other health programs

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Annex 1: Regression results for Short Run Elasticities

Dependent Variable: DLOG(CONSUMPTION)
Method: Least Squares
Date: 04/13/11 Time: 11:59
Sample (adjusted): 1991 2008
Included observations: 18 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.151453	0.238034	-0.636268	0.5356
DLOG(PRICE)	-0.276810	2.151650	-0.128650	0.8996
DLOG(POPULATION)	-3.891655	2.411927	-1.613505	0.1306
DUMMY -0.700825	0.281309	-2.491303	0.0270	
TREND 0.059529	0.024068	2.473389	0.0280	

R-squared	0.446467	Mean dependent var	0.027078
Adjusted R-squared	0.276149	S.D. dependent var	0.506482
S.E. of regression	0.430912	Akaike info criterion	1.384309
Sum squared resid	2.413911	Schwarz criterion	1.631635
Log likelihood	-7.458783	F-statistic	2.621373
Durbin-Watson stat	1.914245	Prob(F-statistic)	0.083507

Annex 2: Regression results for Long Run elasticities

Dependent Variable: LOG(CONSUMPTION)
Method: Least Squares
Date: 04/13/11 Time: 11:56
Sample (adjusted): 1991 2008
Included observations: 18 after adjustments

Variable Coefficient	Std. Error	t-Statistic	Prob.	
C	3.033064	12.68499	0.239106	0.8148
LOG(PRICE)	-0.421224	2.195078	-0.191895	0.8508
LOG(POPULATION)	0.602909	1.948731	0.309385	0.7619
LOG(CONSUMPTION(-1))	0.557355	0.247156	2.255075	0.0420
DUMMY -0.518166	0.240051	-2.158562	0.0502	

R-squared	0.442046	Mean dependent var	8.485403
Adjusted R-squared	0.270368	S.D. dependent var	0.516059
S.E. of regression	0.440810	Akaike info criterion	1.429728
Sum squared resid	2.526076	Schwarz criterion	1.677054
Log likelihood	-7.867553	F-statistic	2.574857
Durbin-Watson stat	1.825642	Prob(F-statistic)	0.087291

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