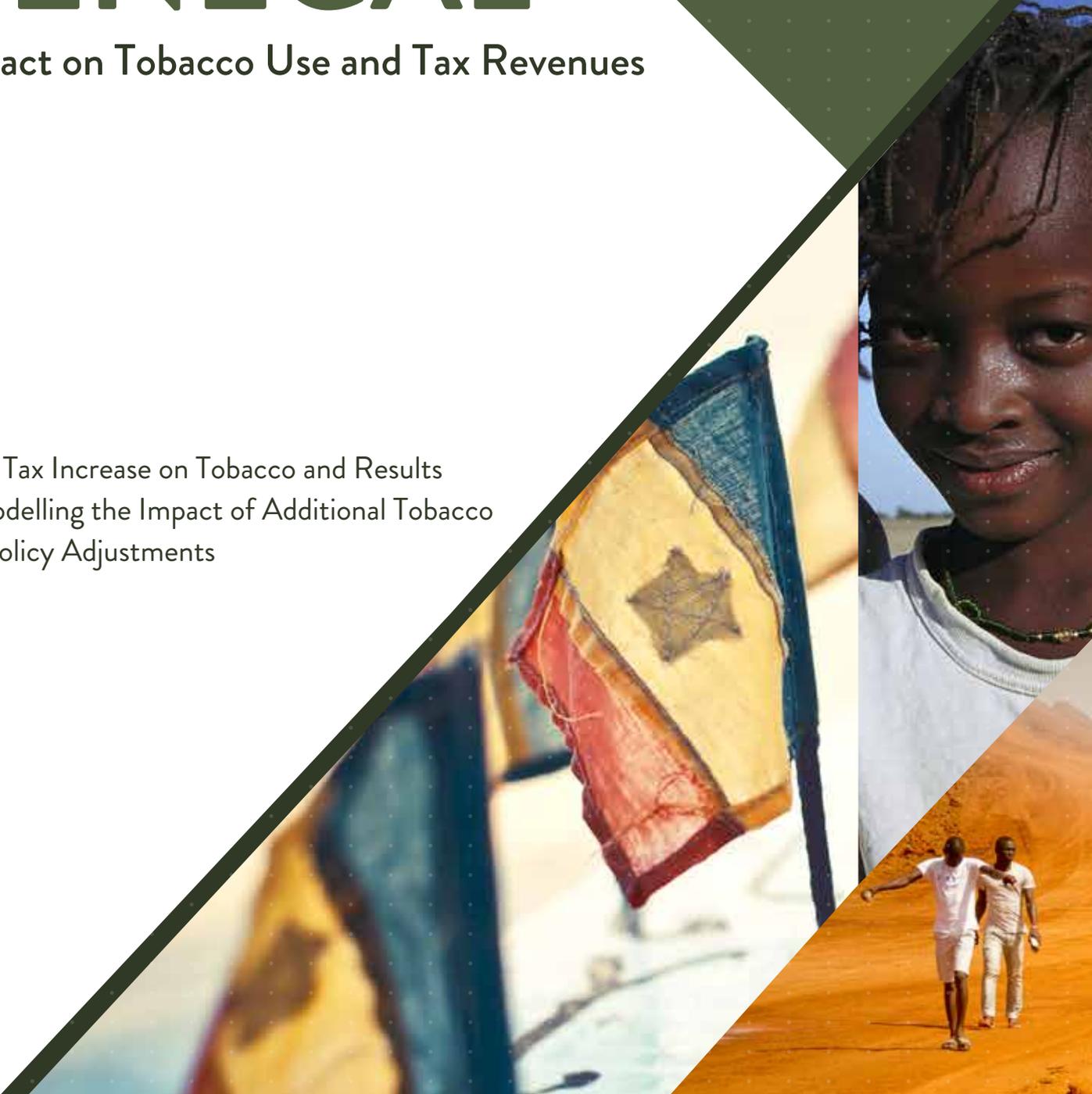


# SENEGAL

## Impact on Tobacco Use and Tax Revenues

2014 Tax Increase on Tobacco and Results  
of Modelling the Impact of Additional Tobacco  
Tax Policy Adjustments





# SENEGAL: IMPACT ON TOBACCO USE AND TAX REVENUES

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the Impact of Additional Tobacco Tax Policy Adjustments

January 2018



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# EXECUTIVE SUMMARY

## 1. Overview

This study has three main objectives. First, it aims to assess the impact of tobacco excise tax increases over 2012-14 on prices, consumption levels, and tax revenues in Senegal, as well as the response by tobacco companies to such increases. Second, the report models the potential impact of two scenarios involving future excise tax increases on tobacco products in Senegal, and considers alterations in the structure of tobacco excise taxation. Finally, it offers policy options to government authorities.

Tobacco use is the largest single preventable cause of premature death worldwide, killing 7.2 million people each year—more than HIV/AIDS, malaria, and tuberculosis combined (WHO 2017). Smoking-related deaths and illnesses have profound costs for households and for the economy as a whole. They deprive families of income, raise the cost of health care and significantly hinder economic development. The economic cost of smoking—from health expenditures and productivity losses together—has been estimated at 1.8% of global GDP, with almost 40% of this cost borne by developing countries (WBG 2017).

Of all public interventions against tobacco use, taxation is perhaps the most cost-effective. There is much global evidence that taxation and the resultant price increases lead to reduced tobacco consumption (Chaloupka et al. 2011). A tax increase that raises tobacco retail prices by 10% decreases consumption by up to 5% in low- and middle-income countries (Shafey et al., 2009:82). Tobacco taxes are a win-win-win from the standpoint of public policy: they improve health outcomes, promote fiscal stability, and are highly equitable. Nonetheless, tobacco taxes are underutilized. Only 33 countries, with 10% of the world's population, have introduced taxes on tobacco products amounting to more than 75% of the retail price (WHO 2017).

Senegal has been a leader among developing countries in its introduction of best-practice policy interventions against tobacco use. Taxes on cigarettes and other tobacco products, however, remain relatively low, at 38% of average retail price (WHO 2017:138). This is partly a legacy of regional trade provisions which predate global adoption of the Framework Convention on Tobacco Control (FCTC) at the 2003 World Health Assembly. Senegal's policy in this area is governed by a West African agreement dating to 1998 which set a 45% ad valorem ceiling on tobacco taxes, conflicting with more recent directives by other bodies which drew from the FCTC.

Member countries of the Economic Community of West African States (ECOWAS) recently agreed to a new draft directive providing for a minimum tobacco excise tax of 50%, and polling data from the 2015 Global Adult Tobacco Survey (GATS) show that 95.5% of adults in Senegal are in favor of raising taxes on tobacco products. The time is ripe, therefore, for serious exploration of additional taxes on tobacco products as a policy option. Furthermore, Senegal's experience can play a key role in convincing neighboring West African countries to harmonize policies on increased tobacco taxes.

## 2. Findings

The retrospective analysis shows that the 2014 cigarette tax increases in Senegal had a limited impact on retail prices if any, as tobacco manufacturers apparently absorbed the price increase in order to avoid any fall-off in consumption following the introduction of the tax. Three lessons emerge from the experience over 2012-14. First, the 45% ad valorem tax ceiling seems to have been too low to generate permanent changes in manufacturer price and consumption levels; the rate of taxation should therefore increase. Second, the ad valorem tobacco excise on ex-factory values should be combined with a specific tax (i.e. per unit) on tobacco products. Finally, there is an important role for better surveillance of manufacturer inventories to monitor patterns of supply and demand which may impact retail prices.

In keeping with these lessons, the report models two scenarios for future tobacco taxation. The first simulation set the ad valorem tax at 60% and the specific tax at CFAF 12 (US\$0.02) per cigarette. Such an intervention would reduce consumption of cigarettes by 17.1%, while more than doubling state tax revenues and increasing the average share of taxes in the price of a pack of cigarettes from 36.6% to 58%. The second scenario assumed an 80% ad valorem duty and a specific tax of CFAF 18 (US\$0.03) per cigarette. In this model, consumption would fall 35.6%, while revenues would increase by almost 128% above those projected for 2018 under current tax, and the average share of taxes in the final retail price would climb to 61%.

The analysis indicates clearly that the present rate and structure of tobacco taxation in Senegal is inadequate to reduce domestic consumption and meaningfully increase state revenues. Reforms to the tobacco tax regime scheduled for 2018 could consider therefore, the adoption of one of the above two scenarios, with a preference for the more aggressive framework. Such an intervention would impact only the domestic market, with little negative impact on the Senegalese tobacco industry, which exports roughly two-thirds of its total production.

The question remains whether taxes should be imposed on these exports, which are currently exempt. The authors conclude that, while such a shift could have substantial fiscal advantages, these would be realized only if the taxation policy is coordinated with neighboring states through regional trade bodies. Any attempt to pursue a unilateral export duty on tobacco, in this assessment, would simply lead to off-shoring of tobacco companies and zero net gain in revenue.



# 1

## BACKGROUND AND OVERVIEW

### 1. The Rationale for Taxing Tobacco

The close relationship between rates of smoking and real prices of cigarettes has long been understood by manufacturers, and was first demonstrated by health economists using government survey data in the early 1980s (Chaloupka & Warner 2000:1551). For many tobacco control advocates in the decades that followed, this co-occurrence of high cigarette taxes and reduced consumption recommended taxation as a policy tool for decreasing the burden of tobacco-related diseases (Jha and Chaloupka, 1999).

Studies modelling the impact of taxation on tobacco use were widely circulated at the time of the Tobacco Master Settlement Agreement in the United States (e.g. Grossman & Chaloupka 1997; see Brandt 2009:434-45). Subsequent empirical research in the U.S. and other developed countries made clear that imposition of taxes, and the resulting increases in retail price, produced declines in smoking (Chaloupka, Hu & Warner et al. 2000; Sung et al 2005; Mulye et al. 2009).

This experience informed policy at an international level, including Article 6 of the World Health Organization's 2003 Framework Convention on Tobacco Control. Early outcomes from countries implementing comprehensive tobacco control policies suggested a rough "yardstick": taxes should amount to between two-thirds and four-fifths of the retail price of tobacco products (Jha & Chaloupka 1999: 10). WHO's current recommendation of 70% indicates a stable consensus on this point (WHO 2011: 104).

International Monetary Fund recommendations offer a more nuanced policy framework (IMF 2016). They urge governments to consider a variety of demand-related factors before settling on a desirable level of tobacco excises. These include overall consumption (and therefore prevalence), price, income levels and the ensuing affordability of tobacco products, and the reaction of demand to tax increases. They also give due consideration to negative externalities from smoking. Indeed, harm suffered, in some form, by non-smokers, has been the primary economic argument for taxing tobacco products more heavily than other goods. The IMF recommendations also call attention to "internalities"—limits to individual self-control can provide a distinct rationale (other than external effects) for heavy taxes on smoking.

Recent findings documented by the IMF (Cevik 2016) show that the structure of cigarette taxes is critical in determining the relative prices of different tobacco products and brands across the price spectrum, and thereby influencing the behavior of tobacco consumers within a country.

## 2. The Trajectory of Tobacco Tax Policy in Senegal

The earliest tobacco control efforts in Senegal were facilitated by the WHO Program on Smoking and Health, launched at the 33rd World Health Assembly in 1980 (WHA33.35). Senegal imposed a ban on public tobacco advertising, then extended it to television ads (Law No. 81-58, 9 November 1981; Law No. 85-23, 25 February 1985). Subsequent legislation, however, soon removed the punitive force of this policy and by the mid-1990s advertising was again widespread (White 1997; Bassene & Mouvement Antitabac du Sénégal 2000).

Tobacco taxation was a matter of some debate in Senegal during the 1990s, though this discussion was driven primarily by fiscal considerations rather than tobacco control. In 1990 and 1992 the maximum rate of tobacco excise taxation was set at 32.4%, then eased to 30% during a 1994 fiscal reform (GATT 1994 : 66; IMF 1997 :15). However, cigarettes made from domestic tobacco, which dominated the market, were subject to a reduced rate of 15%.<sup>1</sup> In 2002, this ad hoc tiered system was formalized with a slightly different emphasis to comply with regional trade agreements: "economy" cigarette brands, taxed at 15%, were differentiated from "premium" brands, taxed at 30% (Law No. 2002-7, 22 February 2002). Even after Senegal's parliament ratified the Framework Convention on Tobacco Control in 2004, its immediate impact on tax policy was limited. In 2009 the excise tax on economy brands was still just 20% ad valorem, though it had been supplemented by a 3% specific tax on each cigarette and the tax on premium brands raised to 45% (Law No. 2009-19, 9 March 2009).

As shown by Cevick (2016), while tax policy can help reduce negative externalities associated with tobacco consumption, the taxation arrangement needs to avoid providing incentives to switch "down" to cheaper cigarette brands in response to tax related and other price increases. From a public health perspective, smoking cigarettes, either economy or premium, is equally harmful. The 2009 adjustments to the tax code in Senegal seem to have promoted exactly this unwanted market dynamic, as they preserved the disparity in taxation for economy versus premium cigarettes formalized in 2002.

<sup>1</sup> See Law No. 2001-07, September 18, 2001, under "taxe sur le tabac et taxe sur les alcools."

<sup>2</sup> Directive No. 03/98/CM/UEMOA of December 22, 1998, as modified by Directive No. 03/2009.

Moreover Philip Morris, by this time the sole domestic manufacturer of premium cigarettes in Senegal, soon responded to the tax increase by cutting the retail price of its Marlboro premium brand by 40%, a strategy reminiscent of its pricing behavior in the United States during the early 1990s (CFTFK 2011; Brandt 2009: 434).

Attempts by Senegal's tobacco control officials to leverage taxation as a tool were further impeded by extant multilateral trade agreements. At the sub-regional level, the Commission of the West African Economic and Monetary Union (WAEMU) addresses taxation by adopting community directives and regulations (directives on excise taxes and the Common External Tariff), which gain force when member states incorporate them into their domestic legal systems. According to one such directive from 1998, cigarette excise taxes in the eight WAEMU member states were not to exceed 45% ad valorem.<sup>2</sup> WAEMU directives are binding on States, although the member states of the Union have a degree of latitude in regard to implementation of the Community arrangement. But although Senegal ratified a second community directive through the Economic Community of West African States (ECOWAS), establishing a ceiling of 100% ad valorem on cigarette taxes, this policy was not adopted by WAEMU countries, where the lower limit remained in force. Thus, when Senegal overhauled its tax code in 2012, its only recourse for tobacco control was to double the excise on economy cigarette brands to 40%, bringing it closer to the rate for premium labels (Law No. 2012-31, 31 December 2012).

By this time, the retail tobacco market in Senegal had devolved into an effective duopoly, with the "economy" segment dominated by the Dakar-based Manufacture de Tabacs de l'Ouest Africain (MTOA) and the "premium" segment captured by Philip Morris, which had begun local production in 2007. The market impact of the 2012 tax increase was striking. Both for economy and premium cigarettes, prices rose on the order of 20% in the space of little over a year.

In 2014, Senegal abandoned the two-tiered taxation structure and instituted a single tax rate of 45% ad valorem on cigarettes. The retail tobacco market in Senegal was also significantly affected by nominal depreciation of the FCFA throughout 2015 against the US\$ to almost 20% above 2014, making domestically-produced cigarettes significantly cheaper than the imported premium cigarettes, which almost disappeared from the market. There was widespread anxiety among policymakers that this price trend would have profound public health implications.



## 2

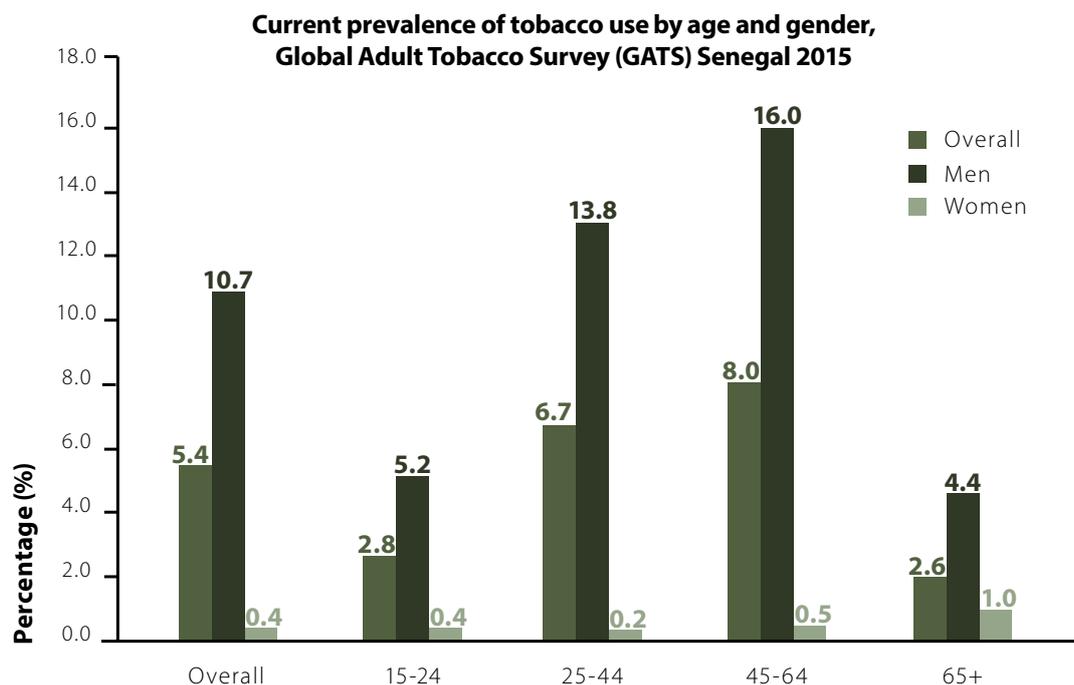
# HEALTH CONTEXT OF THE ANTI-TOBACCO CAMPAIGN IN SENEGAL

## 1. Prevalence of Tobacco Use in Senegal

Studies on the prevalence of tobacco use in Senegal have been mainly ad hoc surveys. There are virtually no cohort studies over a relatively long period of time. Surveys carried out on the subject have often focused on a specific segment of the population.

The 2015 Global Adult Tobacco Survey carried out among the adult population (15 years of age and over), using a random sample of 4,514 representative households, provides the most reliable figures on the prevalence of tobacco use in Senegal. It shows that 6.0% of the adult population (500,000 people) currently consumes tobacco products, of which 11.0% are men and 1.2% are women). Approximately 5.4% of the adult population (400,000) smokes tobacco, of whom 10.7% are men and 0.4% are women. The survey shows that 0.7% (100,000 people) of the adult population consumes smokeless tobacco. Women are the largest group in this market segment, with 1% compared to 0.3% for men.

**Figure 2.1: Prevalence of Tobacco use by age group and gender in Senegal**



Source: GATS, 2015

Tobacco use is more prevalent among the most active and productive segment of the population (25–64 age group), usually the parents of the youngest group (0–15 years).

Questions on tobacco use were included in the STEPwise survey (August 2016) that was conducted among the population of 18 to 69 years of age across the entire country in order to identify and monitor the risk factors of non-communicable diseases. It was carried out on the basis of a national representative three-tiered stratified random sample of 6,306 individuals and took into account one’s residential milieu (urban and rural).

The results confirm those obtained by the GATS on the prevalence of tobacco use in Senegal. According to this survey, overall tobacco consumption is 5.9%: 15.6% for men and 0.4% for women between the ages of 18 and 69.

**Table 2.1: Prevalence of smoking among adults 18-69 years of age**

SMOKERS						
Age group (years)	Men		Women		Overall	
	Number of Persons	%	Number of Persons	%	Number of Persons	%
18-29	603	8.3	1170	0.2	1773	2.9
30-44	632	21.3	1229	0.5	1861	7.6
45-59	445	19.4	621	0.3	1066	8.2
60-69	191	11.1	252	0.8	443	5.3
<b>18-69</b>	<b>1871</b>	<b>15.6</b>	<b>3272</b>	<b>0.4</b>	<b>5143</b>	<b>5.9</b>

Source: STEP Report (2016)

The Global Youth Tobacco Surveys (GYTS) carried out in schools across the country focused specifically on adolescents from 13 to 15 years of age (GYTS, 2002 & 2007 - see Annex). Although relatively dated, these surveys provide important information on the changes in the prevalence of tobacco use among this segment of the population, the changing consumption patterns and the issues and challenges combating tobacco consumption now and in the years ahead.

Data from these two surveys indicate that in Senegal the proportion of children who smoked their first cigarette before the age of 10 increased from 19.3% in 2002 to 25.9% (GYTS, 2002 and 2007). Tobacco use by adolescents aged 13 to 15 years old fell between 2002 and 2007, but consumption of other tobacco-based products increased. In 2002, 13.2% of school children (boys – 20.2%; girls – 4.4%) smoked cigarettes and 5.4% (boys – 7.3%; girls – 2.9%) consumed other tobacco products. In 2007, 7.5% of school children (boys – 12.1%; girls – 2.7%) smoked cigarettes, a drop of approximately 6 percentage points compared to 2002. However, consumption of other tobacco products grew from 5.4% to 9.3% (boys – 11.7%; girls – 7%).

Moreover, a comparison of the 2002 and 2007 studies shows an upward trend among young boys and young girls in the desire to begin smoking (15.6% in 2002 to 31% in 2007). This increase was significant both for girls (13.9% to 27.7%) and boys (17.7% to 37.2%).

Furthermore, a WHO survey report (2001) put the prevalence of smoking in Senegal at about 6.6%, of which 12.9% for men and 0.5% for women.

The table below summarizes the main results of the three most recent studies (WHO, GATS, STEP) which mainly involve adults.

**Table 2.2: Prevalence of smoking in Senegal**

Studies	Prevalence	Men	Women
WHO (2011)	6.6%	12.9%	0.5%
GATS (2015)	6%	11%	1.2%
STEP (2016)	5.9%	15.6%	0.4%

## 2. Challenges for the Anti-Tobacco Campaign in Senegal

The average age at which people begin to smoke in Senegal is 19 for men and 22 for women (Annex A8) (STEP 2016). The rate of exposure to cigarette smoke remains particularly high. In 2015, 30.4% of adults had been exposed to cigarette smoke in their place of work, 21.6% had been exposed in their home and 28.8% in restaurants (GATS, 2015).

According to data provided by the GYTS (2002 and 2007), at least one child in five has a parent who smokes. In 2002, 45.8% of school children lived in homes in which other people smoked in their presence and more than 6 in 10 (62.6%) had been exposed to tobacco smoke outside of their home. Similarly, in 2007 47.6% were living in a house in which other persons smoked in their presence, (an increase of about 2%age points). However, only 48.3% of those had been exposed to cigarette smoke outside of their home.

In 2002, 89.5% of schoolchildren believed that tobacco should be prohibited in public places. This%age dropped by about 5 points, settling at around 85.9% in 2007.

### 3. Tobacco and Health in Senegal

The World Health Organization has identified four major groups of non-communicable diseases (NCDs): diabetes, cardiovascular disease, cancer and chronic respiratory disease. Senegal, like most developing countries, has a model of epidemiological transition characterized by infectious diseases coexisting with NCDs. Half of the deaths in Sub-Saharan Africa are attributed to infectious diseases, a quarter to NCDs. There are some authors who are forecasting that 46% of deaths in Sub-Saharan Africa will be related to NCDs by 2030 [Gaylin et al., 1997, WHO, 2004, 2008] [http://www.who.int/healthinfo/statistics/bod\\_projections2030\\_paper.pdf?ua=1](http://www.who.int/healthinfo/statistics/bod_projections2030_paper.pdf?ua=1).

The results of the STEP survey do not establish any direct causal relationship between the current prevalence of smoking and that of NCDs in the country. Nevertheless, it is amply demonstrated in the literature that tobacco is an important risk factor that aggravates chronic non-communicable diseases (NCDs).

The results of the STEP survey (2016) show that high blood pressure, which can be related to or aggravated by smoking, is particularly high in Senegal. Overall, it affects 24% of the population. Women are more affected (see Table 3 below). The population group with the highest rate of tobacco use (ages 30 to 69) also has the highest rate of hypertension (see Table 3 below).

**Table 2.3: Prevalence of high blood pressure by age group and gender**

Blood hypertension						
Age group (years)	Men		Women		Overall	
	Number of Persons	%	Number of Persons	%	Number of Persons	%
18-29	623	10.4	1163	10.8	1786	10.6
30-44	637	21.3	1240	27.6	1877	25.5
45-59	447	37.7	677	46.3	1124	42.2
60-69	185	50.3	240	57.2	425	53.9
<b>18-69</b>	<b>1892</b>	<b>21.9</b>	<b>3320</b>	<b>26.0</b>	<b>5212</b>	<b>24.0</b>

Source: STEP Report (2016)

The STEPS survey revealed that the overall prevalence of diabetes is 2.1%. It impacts those groups most affected by tobacco use: 2.5% of men compared to 1.6% of women; it is more frequent in urban areas (2.9%) than in rural areas (1.3%); it occurs in 5.4% of the population between the age of 45 and 59, and affects 5.9% of the elderly (Annex).

The country profile of Senegal prepared by the WHO in 2014 (World Health Organization – cancer country profile, 2014) shows that cancer causes 2000 and 2800 deaths per year,

respectively, for men and women. The incidence among men is 1,392 men compared to 2,998 for women.

According to the cancer profile for Senegal prepared by the World Health Organization in 2014, smoking, insufficient physical activity, obesity, using solid fuel sources inside the home constitute the main risk factors for cancer among adults in the country.

Moreover, tobacco use is particularly harmful to oral health. Indeed, STEP data show that during the 12 months preceding the survey, pain and feelings of discomfort in the teeth or mouth were the predominant complaints, representing more than a third (31.8%) of the survey responses. This complaint is given as the major reason for visits to the health care centers by 79.5% of persons surveyed who had seen a dentist during the period (STEP 2015).

**Table 2.4: Prevalence of oral pain or discomfort by age group and gender**

Respondents reporting pain or discomfort						
Age group (years)	Men		Women		Overall	
	Number of Persons	Tooth or mouth pain or discomfort	Number of Persons	Tooth or mouth pain or discomfort	Number of Persons	Tooth or mouth pain or discomfort
18-29	633	25.6	1177	32.8	1810	29.3
30-44	659	27.7	1261	40.1	1920	34.2
45-59	459	28.9	678	37.9	1137	33.6
60-69	186	25.4	243	36.1	429	30.9
<b>18-69</b>	<b>1937</b>	<b>26.9</b>	<b>3359</b>	<b>36.4</b>	<b>5296</b>	<b>31.8</b>

It should be noted that in addition to chronic diseases (respiratory diseases, type 2 diabetes, cardiovascular disease, oral-dental illnesses, cancer, urological, neurological, ophthalmological and ENT disorders), the analysis of the effects of tobacco use on health in countries like Senegal must take into account other diseases such as tuberculosis, AIDS and maternal and infant health problems. These are the public health problems that have a disproportionate impact on the countries of the sub-region. And today the link between their progression and tobacco consumption is well established.

The overwhelming majority of the population that participated in the GATS (smokers as well non-smokers) is aware of the harmful effects of smoking on health. Indeed, in terms of knowledge, the perception of such consequences and the attitudes one should adopt, 93.9% of adults think that smoking can lead to serious illnesses. Moreover, in terms of the effects of exposure to tobacco, 91.9% of adults think that breathing second-hand smoke leads to serious illnesses for non-smokers (Annex A4).

Finally, it is important to point out that 67.7% of those surveyed think that smoking leads to cardiovascular incidents (GATS 2015).

#### **4. Main Conclusions**

In summary, major studies of health outcomes from the anti-tobacco campaign in Senegal found that:

- There is a relatively low prevalence of tobacco use in the country;
- Men tend to smoke more than women
- Smoking is more prevalent among the working adult population;
- The age at which one begins to smoke is dropping, and among women smoking is more prevalent as they get older;
- Chronic diseases are on the rise, which is due to or aggravated by smoking.

Careful analysis of the progression of smoking in the country shows disturbing trends which, although relatively weak, risk turning the country into fertile territory for increased tobacco consumption if they are not reversed.





# 3

## IMPACT OF THE TAX INCREASE ON CIGARETTE SALES IN SENEGAL IN 2013 AND 2014

### 1. Impact on Price

The effectiveness of tax reform policies from a tobacco control perspective depends on several factors, including the extent to which tax increases impact the sales price (IARC, 2011). The impact on the sales price depends on the tax structure and the configuration of the market (Stiglitz, 1999), which may or may not confer market power on the companies present in these markets.

The aim here is to analyze the effects of the increase in taxes on the prices of different categories of cigarettes: analyze the change in prices (in current CFA Francs and US dollars) charged to the final consumer and the prices declared by the tobacco companies before and after implementation of the tax increase.

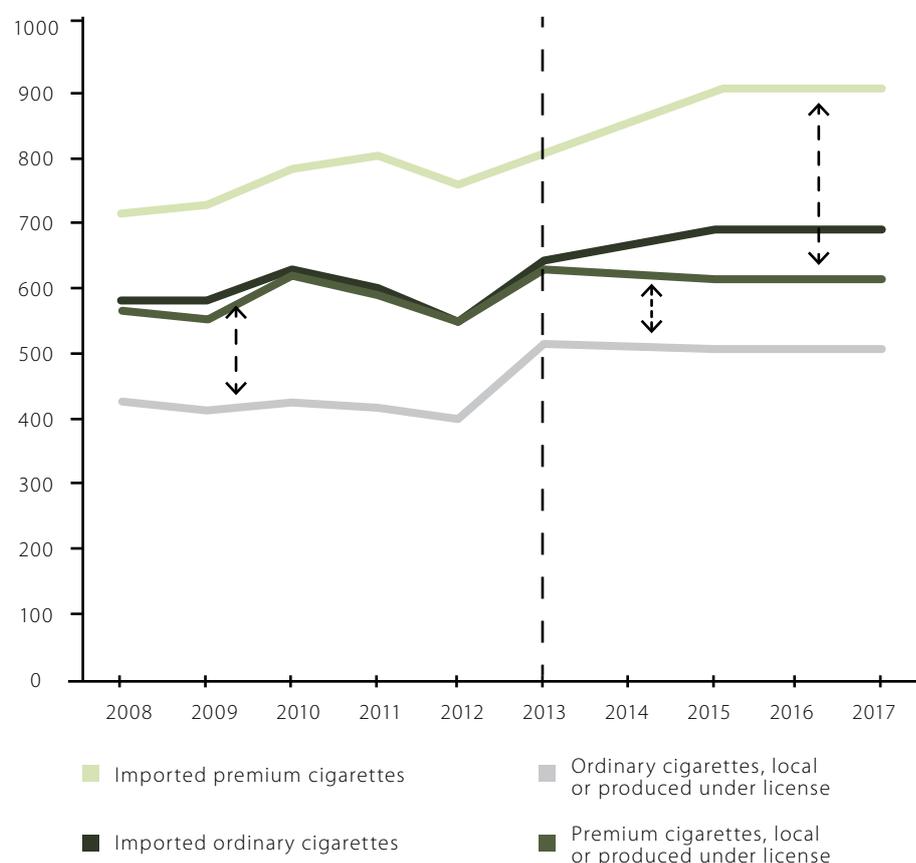
To better assess the impact on prices, we shall look at prices paid by the final consumer (ANSD 2017) and broaden the analysis to include the years prior to 2013.

**Table 3.1: Prices paid by final consumer (in CFA Francs)**

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Ordinary local cigarettes or licensed products	440	435	445	435	419	517	522	517	517	517
Imported ordinary cigarettes	583	583	614	604	550	653	667	681	683	683
Premium cigarettes, local or produced under license	567	547	607	589	550	637	626	620	620	620
Imported Premium cigarettes	717	733	790	799	767	817	875	917	917	917

Source: ANSD 2017

**Figure 3.1: Change in average prices charged to the final consumer for different categories of cigarettes in CFA Francs**



Note: Average price = the sum of prices over 12 months /12, except for the year 2017 = the sum of prices from January to May /5

For the two categories of cigarettes, prices rose sharply between 2012 and 2013, a period noted for an increase in tax rates on the low-cost category which climbed from 20% to 40% and the elimination of the standard category taxed at 31%. Prices of the economy category varied slightly during the period after 2014, despite the increase in the tax rate from 40% to 45%, but remained fairly constant. The price of imported premium cigarettes rose slightly the first year after the 2014 reform before stabilizing. The price of premium cigarettes produced locally dropped somewhat after 2014 and then stabilized.

The prices under consideration here pertain exclusively to local production and not imported cigarettes, corresponding to the tax base for tobacco (ad valorem tax) declared by the cigarette companies.

**Table 3.2: Average wholesale price (per pack of 20) declared on the low-cost category by MTOA and Philip Morris**

ECONOMY CATEGORY / YEAR	2013	2014	2015	2016
MTOA	247	248	249	250
Philip Morris	229	219	191	187
Weighted average price (20 cigarette pack)	238	233	220	218

Source: Philip Morris and MTOA Tax Returns

**Figure 3.2: Change in average ex-factory prices (20-cigarette pack) declared for the low-cost category by MTOA and Philip Morris between 2013 and 2016**

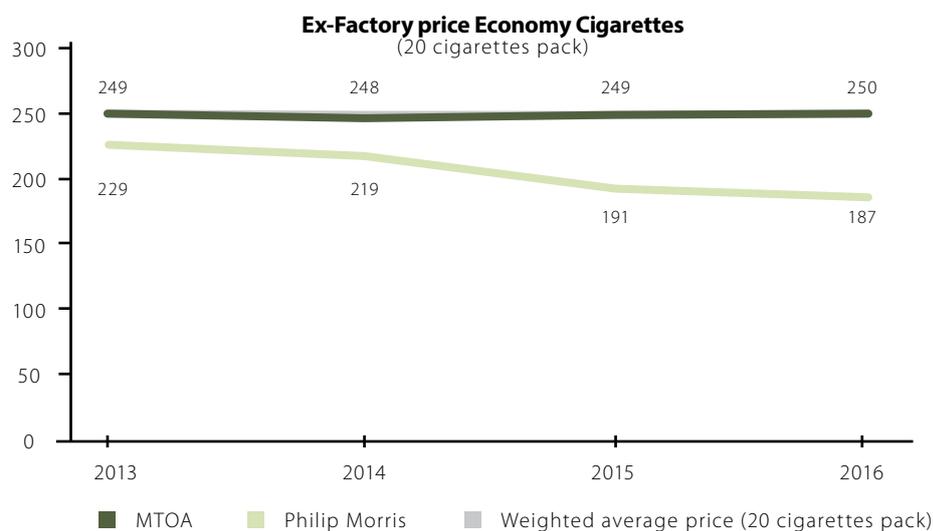


Fig. 3.2 shows that the average price for low-cost cigarettes (ad valorem tax base) is relatively stable for MTOA. However, for Philip Morris, it shows a continuous decline until 2015 before stabilizing in 2016.

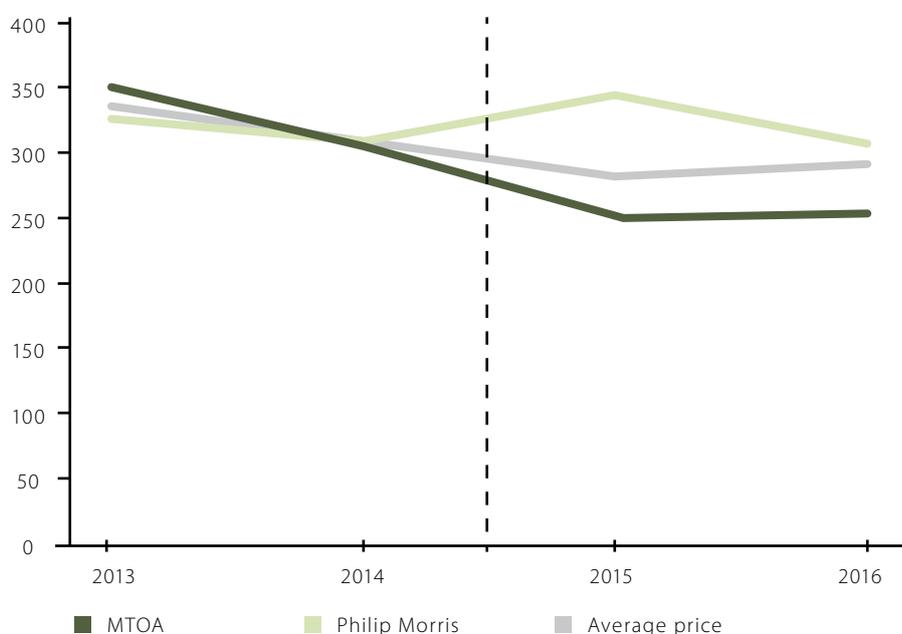
This situation could be explained by the strategic positioning of Philip Morris in the economy category, which had long been dominated by MTOA. The determination to win market share and exploit the inefficiencies in the Senegalese tax system may have fostered a price war that newly installed companies would be able to wage (IIARC, 2011). And this may have nullified the effects of the tax increase on prices and erased projected increases in tax revenues for the government.

**Table 3.3: Average ex-factory price (20-cigarette pack) declared for the premium category by MTOA and Philip Morris\***

Year	2013	2014	2015	2016
MTOA	339	312	-	-
Philip Morris	330	328	334	307
Weighted average price	330	328	333	306

Source: Philip Morris and MTOA Tax Returns

**Figure 3.3: Change in average ex-factory price (20-cigarette pack) declared on the premium category by MTOA and Philip Morris between 2013 and 2016**



The average declared ex-factory prices for premium cigarettes have generally trended lower. This major downward trend for premium cigarettes compared to low-cost cigarettes is paradoxical since price elasticity of demand for premium products is generally low and the additional 5% tax increase only targeted the low-cost cigarettes. Consequently, a drop in price for this category of cigarettes was unexpected.

For the purposes of tax reform scenarios and impact projections, we have used the weighted average price simulation (20-cigarette pack) employed by the MTOA company, known for specializing in this segment, as a basis for our simulations pertaining to the economy category.

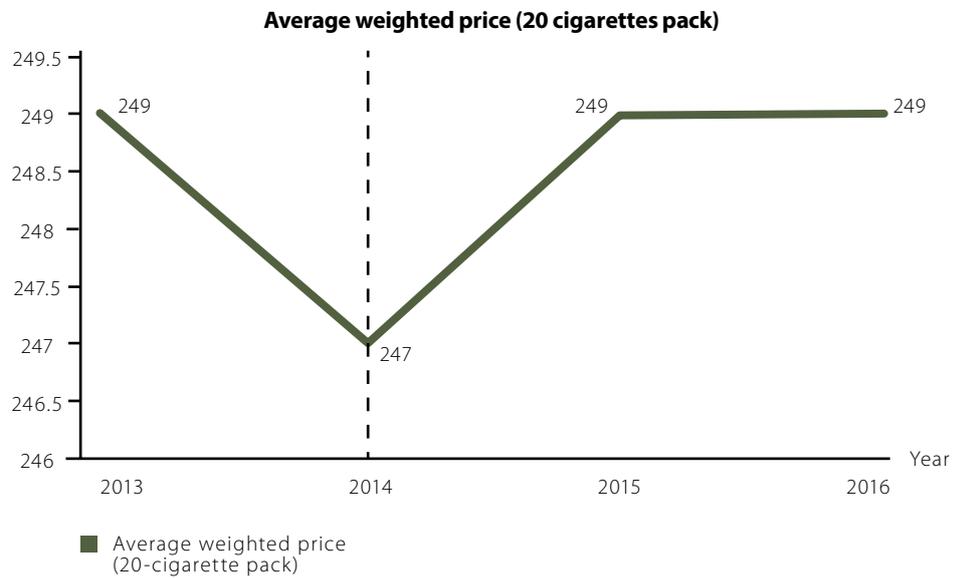
\* No amount was declared by the MTOA in 2015 and 2016

**Table 3.4: Average wholesale prices (20-cigarette pack) of the low-cost category**

Low-Cost Category / Year	2013	2014	2015	2016
Average weighted price (20 cigarette pack)	249	247	249	249

Source: MTOA Tax Returns

**Figure 3.4: Change in average weighted ex-factory prices (20-cigarette pack) between 2013 and 2016 for the low-cost category**



For the purposes of tax reform scenarios and projections in terms of impact, we have used the weighted average price simulation (20-cigarette pack) for the premium brands marketed by Philip Morris, known for specializing in this segment, as the basis for our simulations.

**Table 3.5: Average ex-factory price (20 cigarette pack) for premium category**

Year	2013	2014	2015	2016
Average weighted price	330	328	333	306

Source: Philip Morris tax returns

**Figure 3.5: Change in average ex-factory prices (20-cigarette pack) between 2013 and 2016 in the premium category, which is the basis for our simulations**



The non-existent or minimal impact of the tax increase in 2014 (contrary to that of December 2012) on sales prices paid by the end consumer could be explained by the strong market concentration of tobacco products in two major companies (MTOA and Philip Morris). This gives the companies relative power as price makers (Gilmore et al., 2010). They can under-adjust or over-adjust the increase in taxes to the prices paid by the consumer according to the impact this increase has on their profitability.

In Senegal, the data seem to indicate that tobacco companies have absorbed the tax increase in their pricing by keeping them low in order to maintain their customers and market share. This could mean that the companies have no interest in increasing their prices, which would now allow them to earn excess profits.

Ultimately, the impact of the tax increase on average retail sale prices to the consumer was neutralized by the reduction in average ex-factory price (which is the basis for ad valorem taxation on locally-produced cigarettes in Senegal). This demonstrates that when policymakers confine themselves to ad valorem taxation, the tobacco industry is able to neutralize or, at least to reduce, the effect of the tax increase. The companies make use of the price elasticity, their market power and their profit margin to ensure that consumption levels are not affected.

Another consequence of using the ex-factory price as the basis for taxation is the loss of tax revenue to the government. In Senegal, for example, the maximum ex-factory price for a pack of 20 cigarettes declared by the manufacturer was CFAF 306 for premium cigarettes in 2016, while a pack of cigarettes was sold to the final consumer for CFAF 620, more than double the amount.

A change in the tax base or the imposition of a minimum base price could considerably increase tax revenues for the State, and reduce the room for maneuver of companies to manipulate prices in order to reduce the effects of the tax increases on prices; as a result, cigarettes would become less accessible and tobacco use less prevalent.

Moreover, using the ex-factory price as the basis for taxation can also lead to behaviors that might be tantamount to tax fraud. Indeed, the experience of some countries such as Russia has shown that instituting an ad valorem tax based on the wholesale price led the tobacco industry to sell its products to distributors at a much-reduced price in order to lessen the impact of the tax. Once the tax was collected, distributors sold the cigarettes at a higher price and split the excess profits with the tobacco industry. To put an end to this practice, the Russian government decided to change the tax base, replacing the wholesale price with the maximum retail sales price.

It seems plausible that the two cigarette companies in Senegal might have been inclined to collude in maintaining the price at a higher level than their marginal cost, which would allow them to maintain their level of profit or even increase it with the sale of each additional unit. In some cases, this manipulation of the wholesale or ex-factory price to maintain low prices and thus reduce taxes could be considered tax fraud.

Therefore, the government of Senegal should learn from the Russian experience and choose the price paid by the final consumer as the basis for ad valorem taxation, but also combine the ad valorem tax with the specific tax on tobacco products (WHO 2011).

## **2. Increase in Cigarette Tax and Cigarette Company Inventory Strategies**

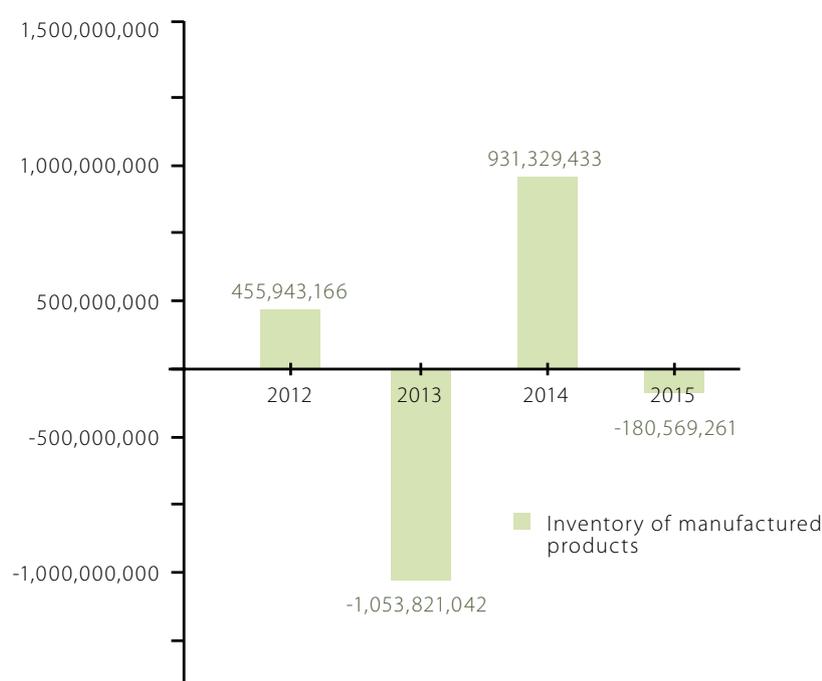
An analysis of the cumulative variation in inventory of the two major companies (MTOA and Philip Morris) points to a practice often mentioned in the literature – anticipating tax increases by a mass sell-off of available stocks before the new tax reforms come into effect.

In 2013, the consolidated data from the financial statements of MTOA and Philip Morris show that the companies sold off their surplus stock of products manufactured for export before the reform took effect, in order to avoid the increased taxes that would come on stream at the end of 2014.

**Table 3.6: Inventory change in products manufactured by MTOA and Philip Morris from 2012 to 2015 (CFA Francs)**

YEARS	2012	2013	2014	2015
Inventory of manufactured products	455,943,166	-1,053,821,042	931,329,433	-180,569,261

**Figure 3.6: Inventory change in products manufactured by MTOA and Philip Morris (CFA Francs)**



Source: Based on the consolidated data from the financial statements of MTOA and Philip Morris, 2017 (See Annex)

In Senegal, except for publishing their annual statements, tobacco companies have never been subject to any specific obligation regarding a declaration of their inventories and the manufacture of cigarettes. Consequently, the Government is deprived of an effective means for the continuous monitoring and assessing of inventories and production of the tobacco companies.

And yet, the concern of the Senegalese Government to keep an eye on the manufacture of products for which consumption is monitored is clear in the regulations that govern the tax on alcohol and alcoholic beverages. Indeed, Articles 422 and 423 of the Senegalese CGI set forth a complete monitoring regime over inventories and products of manufacturers of alcohol and alcoholic products in terms of the reporting requirements and sanctions in the event of violations. What justifies the favorable treatment for the producers of cigarettes? In other words, is the consumption of alcohol more dangerous for the health of our citizens than smoking cigarettes?

### 3. Impact of the Tax Increase on Final Consumption

The impact of the tax increase on consumption will be analyzed from two perspectives:

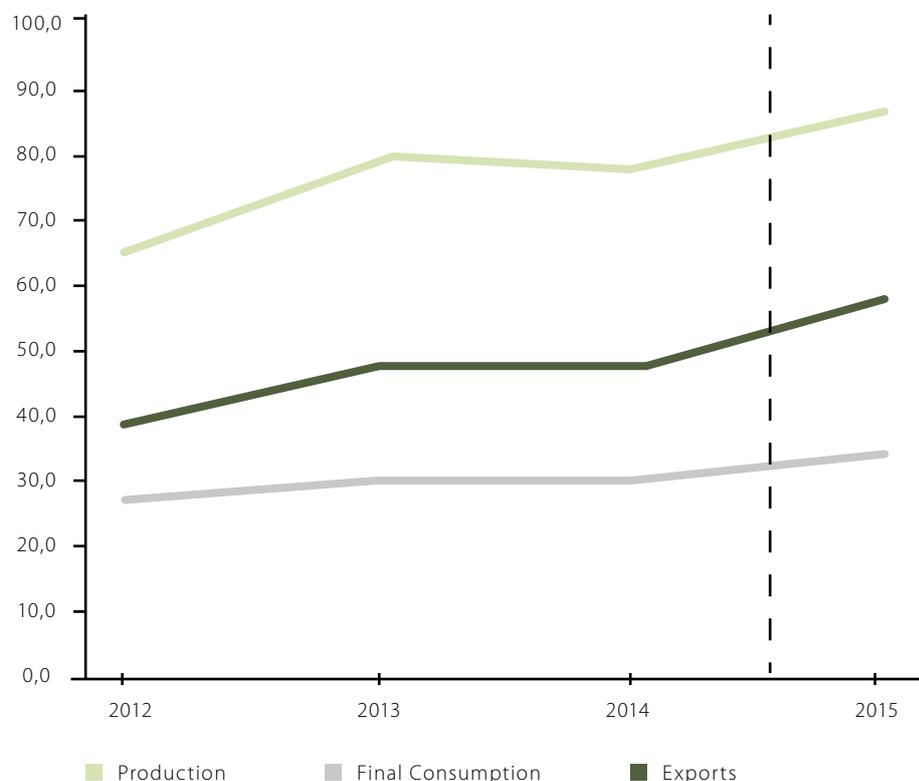
- The change in final consumption (in billions of CFA Francs) from data collected from the ANSD (2017);
- The change in quantities of tobacco sticks produced by the two companies (proxy for consumption)

**Table 3.7: Final consumption, production and export of tobacco (in billions of CFA Francs)**

MANUFACTURE OF TOBACCO-BASED PRODUCTS	2012	2013	2014	2015
Production	63.0	78.4	77.9	86.2
Final Consumption	26.2	29.9	29.5	30.9
Exports	36.8	48.5	48.3	55.3

Source: ANSD, 2017

**Figure 3.7: Change in final consumption, production and export of tobacco (in billions of CFA Francs) between 2012 and 2015**



Source: ANSD, 2017

The tax hike on tobacco has not led to a drop in the value or volume of production, consumption, or exports, except between 2013 and 2014. Production and consumption, which had dropped slightly between 2013 and 2014, climbed in 2015 (the year which followed the year of the last tax increase). The same is true for exports.

This suggests that tobacco companies have not only increased their production but have also profited from differential tax rates among States and the exemption of taxes on tobacco exports to increase their sales outside the country.

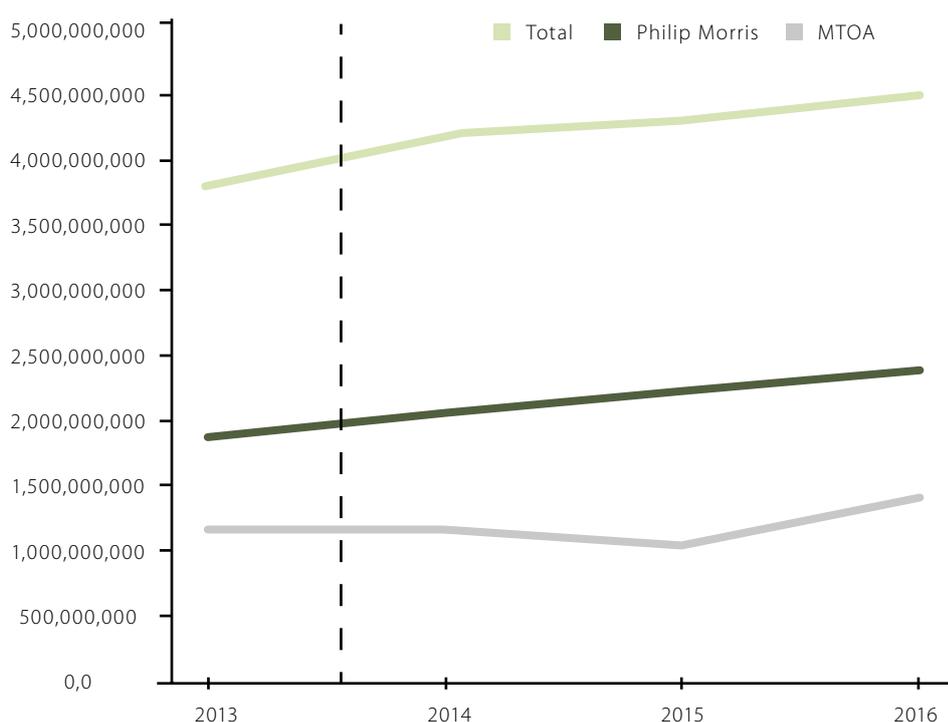
The increase in exports in the sub-region as well as in the rest of the world (other countries) is a perfect illustration of this (see Annex 11 and Annex 12 for summary tables of imports and exports).

**Table 3.8: Quantities of sticks produced for local sales by the two companies (proxy for consumption)**

YEARS	2013	2014	2015	2016
MTOA	1,088,240,560	1,111,581,200	1,091,160,280	1,267,467,900
PHILIP MORRIS	838,879,600	905,863,600	963,173,300	970,090,000
TOTAL	1,927,120,160	2,017,444,800	2,054,333,580	2,237,557,900

Source: Tobacco company tax returns

**Figure 3.8: Change in quantities of sticks produced by MTOA and Philip Morris between 2013 and 2016**



The production of individual cigarettes by the two Senegalese manufacturers has steadily increased between 2013 and 2016. However, production by MTOA dipped slightly in 2015, the year that followed that of the increase in the tax on tobacco, and then continued its upward trend starting in 2016. This exceptional drop in production in tobacco sticks could be explained by MTOA's response, when it reduced its principal production—low-cost cigarettes—the only ones concerned by the tax increase.

#### 4. Impact of the Tax Increase on Tax Revenues for the State

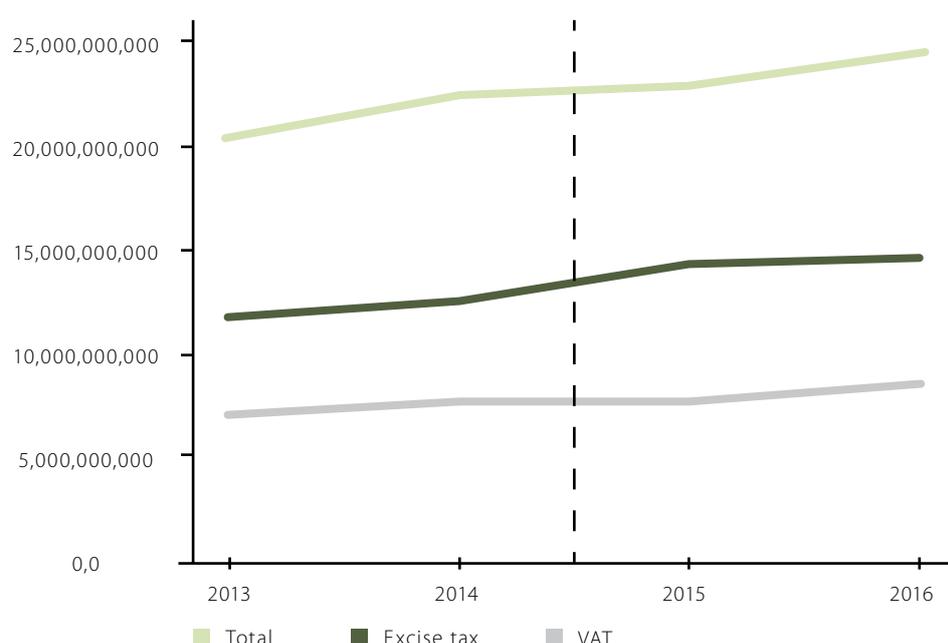
To assess the impact of the increase in tobacco taxes on tax revenues for the State, we analyze the following changes:

- Tax revenues from excise taxes before and after 2014, and
- Taxes on tobacco collected in Senegal by the DGID during the 2007-2016 period

**Table 3.9: Tax revenues from excise taxes and VAT**

YEARS	2013	2014	2015	2016
Excise Tax	13,011,428,070	13,325,063,237	14,063,886,375	14,208,895,051
VAT	7,628,500,653	7,868,495,243	7,803,174,319	8,065,076,863
TOTAL	20,639,928,723	21,193,558,480	21,867,060,694	22,273,971,914

**Figure 3.9: Change in Tax revenues from excise taxes and VAT**



The 2014 tax reform had the effect of increasing excise tax revenues. Indeed, the increase in the amount of excise tax paid by the tobacco companies in 2015 for local production and imports was considerable.

In that year, the increase in tobacco excise taxes amounted to CFAF 739 million in absolute value, or 5.54% in relative value. This increase in revenue derived from the tobacco tax in 2015, compared to the amounts from the years 2014 (2.41%) and 2016 (1.03%), shows that the effect of the tobacco tax increase on government revenues was indeed real, although relatively modest in the first year and was even less starting in the second year.

The drop in VAT revenues, which also occurred in 2015 (see Table 3.10), further confirms the real impact of the tax hike on revenues collected from cigarettes. Indeed, in 2015, the year following the tobacco tax increase when VAT revenues dropped because of the reaction of the tobacco companies, which lowered their production (see Table 12) and/or increased significantly tobacco exports, which are tax exempt (see Table 12), the 5.45% increase in tobacco tax revenues was important. This positive impact on tax revenues is even more marked as it was noted that the increase in tobacco tax revenues occurred despite the action taken by the tobacco companies. By reacting in terms of pricing, the tobacco companies were able to absorb the tax increase on tobacco products with a relative drop in the VAT. In Senegal, there is only one ad valorem tax, and the problem of not using the sales price to the final consumer as the minimal basis for the excise tax allows the companies to react, effectively neutralizing the tobacco tax increase.

The table below shows the change in excise tax receipts during the 2013 to 2016 period.

**Table 3.10: Change in excise tax receipts before and after the rate increase on the low-cost category from 40% to 45%**

YEARS	2013	2014	2015	2016
Tax on cigarettes collected by the State	13,011,428,070	13,325,063,237	14,063,886,375	14,208,895,051
Annual increase in numbers	-	313,635,167	738,823,138	145,008,676
Annual increase in % age	-	2.41%	5.54%	1.03%

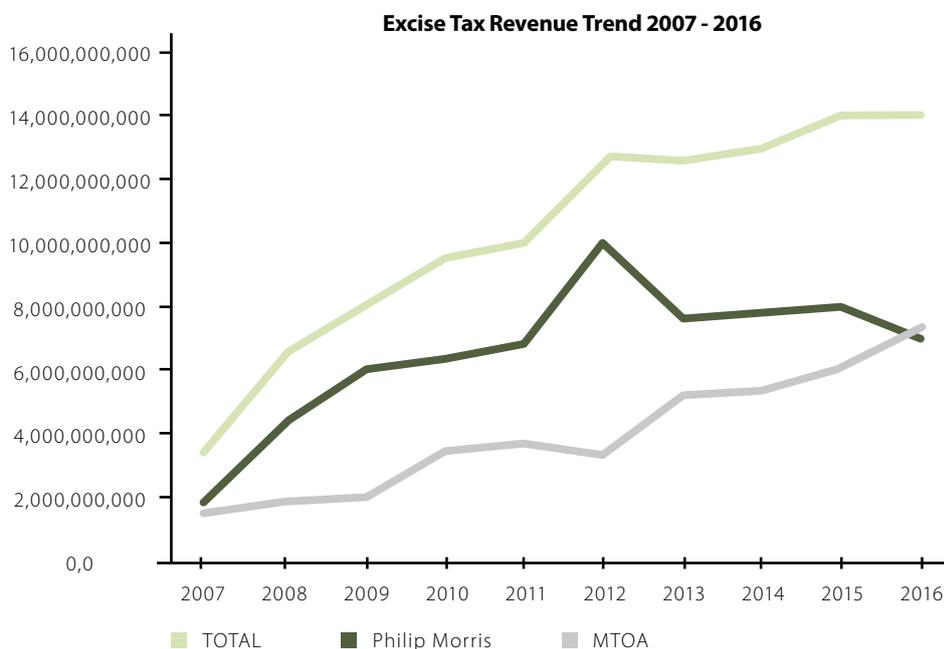
Tobacco tax revenues increased significantly during the period following the tax increase in 2014. This change is clearly seen in the table and figure below, which take into account the period from 2007 to 2016, although this period goes beyond the period under study.

**Table 3.11: Collection of Locally Produced Tobacco Taxes in Senegal, 2007-2016**

YEARS	PHILIP MORRIS	MTOA	TOTAL	VARIATION
2007	1,652,914,217	1,204,617,551	2,857,531,768	
2008	4,213,340,542	1,872,689,185	6,086,029,727	112.98
2009	5,878,619,106	2,089,312,796	7,967,931,902	30.92
2010	6,068,282,061	3,369,809,400	9,438,091,461	18.45
2011	6,415,505,200	3,523,544,780	9,939,049,980	5.31
2012	10,103,298,000	3,023,065,616	13,126,363,616	32.07
2013	7,518,515,600	5,425,948,672	12,944,464,272	-1.39
2014	7,769,479,600	5,456,007,892	13,225,487,492	2.17
2015	7,845,596,081	6,159,243,019	14,004,839,100	5.89
2016	6,938,501,965	7,023,254,342	13,961,756,307	-0.31

Source: DGID

**Figure 3.10: Change in the collection of locally produced tobacco taxes in Senegal, 2007-2016**



Source: Data provided by the DGID

There was an appreciable drop in the collection of taxes from locally produced cigarettes, after more than five years of increases prior to 2014. This change is due mainly to Philip Morris, as the amounts collected from the MTOA have continued to increase.

## 5. Impact of the Tobacco Tax Increase on Employment in the Tobacco Industry (TI)

We did not have all the data required for an exhaustive analysis of the impact on employment. Nevertheless, to analyze in a summary manner the impact of the 2014 tobacco tax hike on employment in the tobacco industry, we shall follow the evolution of aggregate payroll, the overall number of employees, looked at separately, before examining the correlation of the variation in aggregate payroll with workers and the correlation between the evolution of total sales, production and total employees in the tobacco industry.

**Table 3.12: Change in employment, total sales and aggregate payroll in the tobacco industry in Senegal**

YEARS	COMPANIES	REVENUE	TOTAL WORKFORCE	PERMANENT WORKFORCE (NATIONALS)	PAYROLL	PAYROLL (PERMANENT NATIONALS)
2013	MTOA	40,322,743,540	203	171	2,329,269,121	1,700,340,391
	Philip Morris	39,848,776,322	204	199	2,399,996,779	2,305,574,221
	TOTAL	80,171,519,862	407	370	4,729,265,900	4,005,914,612
2014	MTOA	41,159,513,041	228	191	2,934,071,168	2,237,086,190
	Philip Morris	36,690,567,408	218	211	2,681,061,703	2,597,253,365
	TOTAL	77,850,080,449	446	402	5,615,132,871	4,834,339,555
2015	MTOA	41,617,386,440	187			
	Philip Morris	44,500,442,416	240	229	2,859,542,047	2,702,898,473
	TOTAL	86,117,828,856	427		2,859,542,047	
2016	MTOA	35,754,131,325	188	151	2,345,601,661	1,711,755,403
	Philip Morris	47,436,367,054	266	243	3,924,809,705	3,530,586,160
	TOTAL	83,190,498,379	454	394	6,270,411,366	5,242,341,563

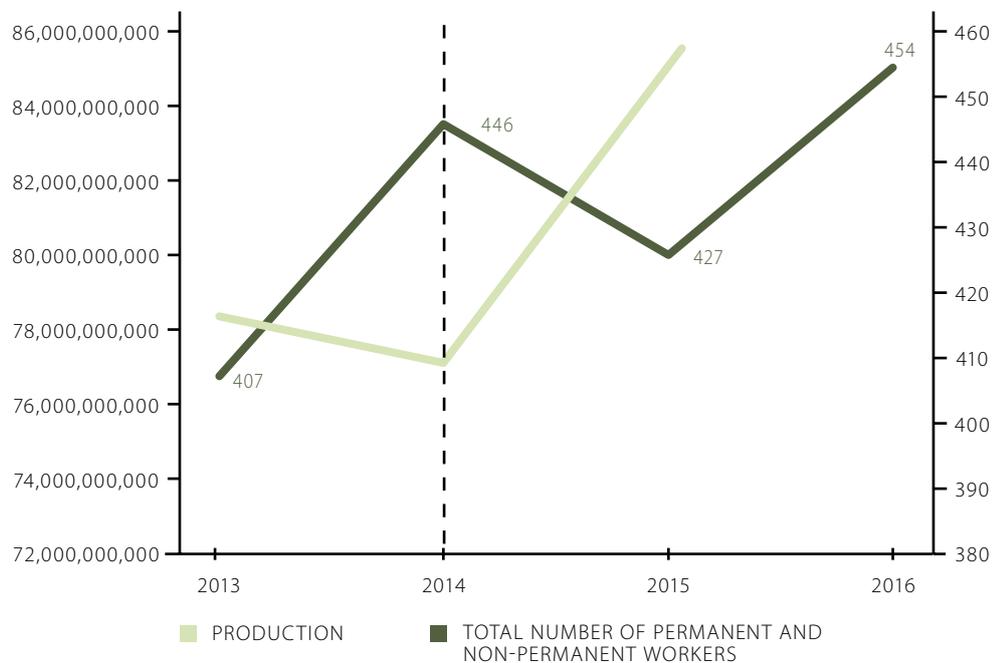
**Figure 3.11a: Change in aggregate payroll relative to overall employees**



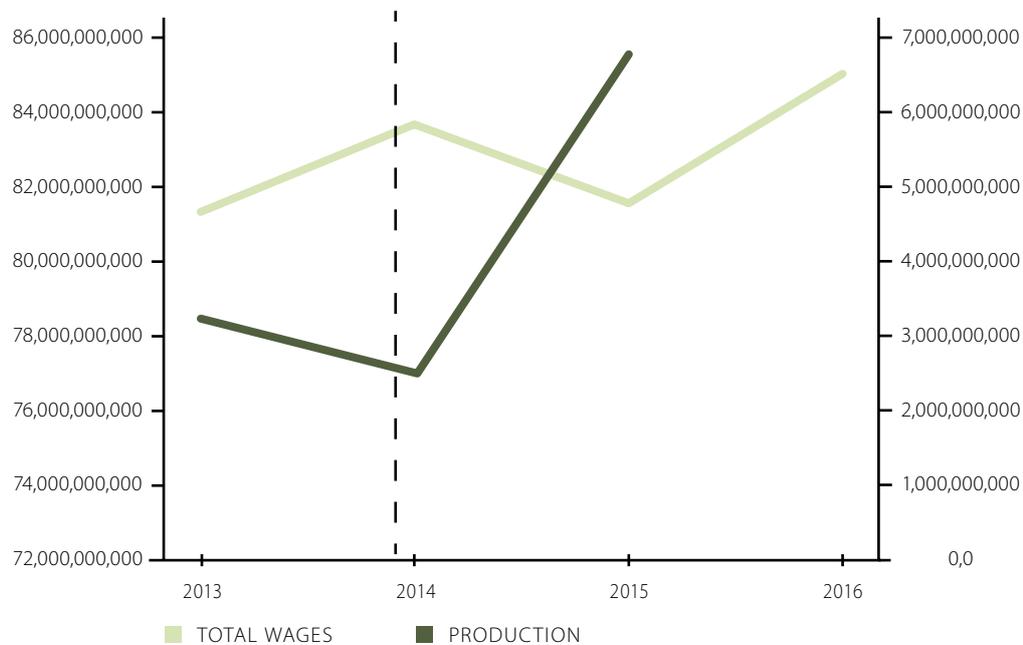
**Figure 3.11b: Change in total sales relative to payroll**



**Figure 3.12a: Change in production relative to total workforce**



**Figure 3.12b: Change in Production Relative to Payroll**



## 6. Conclusions

An analysis of the data in the above tables and figures leads us to the following conclusions that need to be confirmed in a more detailed impact study:

- The 2014 tax increase was accompanied by a drop in employment and payroll from the first year (2015) and by a recovery starting with the following year (2016).
- The total sales figure moved in the opposite direction compared to payroll. Indeed, while total sales of the tobacco industry trended lower between 2013 and 2014, payroll increased. However, the increase in total sales after the 2014 tax hike was paradoxically accompanied by a drop in payroll.
- The production of tobacco products appeared to move in the opposite direction of total workforce and payroll until 2015. This phenomenon can be explained by the fact that the surplus in production was attributable to investments in machinery (modernization and mechanization of production). This propensity of the tobacco industry to progressively substitute machines for local labor can be assessed by examining in detail the change in investments of the two major players in the market. The lack of data for 2016 does not allow us to draw conclusions without judging definitively how these indicators are evolving.
- Finally, the vast majority of permanent employees in the tobacco industry of Senegal is composed of permanent nationals. The lion's share of the payroll paid to employees of the tobacco companies goes to this group.

In sum, it is our opinion that the impact of the tobacco tax hike on employment should be studied in greater detail as it cannot be covered adequately within the framework of this study.



# 4

## MODELLING THE IMPACT OF TOBACCO TAX INCREASES

### 1. Background

On July 10-14 2017 a WBG team visited Dakar, and, in consultation with the Ministry of Finance (MoF) of Senegal, the Tax and Customs Agencies and the Tobacco Technical Committee, agreed to conduct modelling work to assess the likely impact of tobacco excise tax increases on prices, consumption, and revenue mobilization under two policy scenarios.

In conducting the modelling work, the WBG team considered the commitment of the Government of Senegal to harmonize tobacco taxation policy in the framework of the community provisions regulating tobacco taxation in the West African Economic and Monetary Union (WAEMU) and the Economic Community of West African States (ECOWAS).

While Senegal has adopted the maximum ad valorem tax rate of 45% allowed by WAEMU<sup>3</sup>, the ECOWAS member countries have agreed to a new draft directive which provides for the adoption of a minimum excise tax of 50%, the elimination of all tax exemptions on tobacco products (Article 6), as well as the obligatory application of a combination of ad valorem and specific taxes. The challenge for Senegal as a member of both organizations is to assert its right to apply the ECOWAS maximum rate of 100% and to convince the other WAEMU member countries to agree to harmonize positions on increasing tobacco taxes toward the ECOWAS and WHO targets.

### 2. Scenarios

The aim here is to make forecasts on the basis of the draft ECOWAS directive that proposes the imposition of a minimum ad valorem tax of at least 50% on tobacco products, and recommends changes to the tax structure by introducing a mixed system, combining ad valorem and specific taxes on tobacco products.

The simulation exercise was carried out adapting the TAXSIM model developed by the WHO to Senegal excise tax structure. The simulation model used 2016 and 2017 tax structure as baseline including the existing 45% ad valorem tax currently in effect, and introducing a specific tax in 2018 projections (see WBG Final Report on Modelling Tobacco Excise Tax Impact in Senegal – September 2017).

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<sup>3</sup>Senegal is one of the four members of the eight-member Union that is currently applying the maximum rate (45%) prescribed in the WAEMU Directive No. 03/98/CM/UEMOA of December 22, 1998 on the harmonization of the legislation of Member States on excise taxes, as modified by Directive No. 03/2009.

A specific tax has a number of advantages:

- **It is predictable.** Because the tax is insensitive to price variations, revenues do not change when the manufacturers change their prices. Public revenues are therefore protected from price manipulation and price wars among manufacturers. The Government can estimate revenue from taxes on tobacco based on the demand for tobacco.
- **It increases the price of all products.** A specific tax is fixed and does not depend on the pricing strategy of the tobacco industry. Moreover, to the extent that this tax is applicable to all products at the same rate, a tax increase usually leads to a similar and systematic increase in price, whatever the product. A specific tax reduces the price difference between inexpensive products and more expensive products.
- **It is easy to determine the amount of the tax.** A specific tax is calculated based on quantity. This calculation requires only a precise definition of what “one unit” or the quantity represents.
- **It is easy to administer.** Administrative costs of a specific tax are low as it is easier to count the number of products than to estimate their value. Contrary to the ad valorem tax, collected at different points during the production process, a specific tax is collected just once, either from the producer/importer or from the retailer, which makes tax fraud less probable and tax collection more efficient.

**Table 4.1: Senegal Proposed Tax Policy Measures for 2018 - Summary Results**

GOVERNMENT REVENUE TYPE	YEAR	MOF CURRENT EXCISE TAX STRUCTURE: 45% AD VALOREM	POLICY OPTION 1: 60% AD VALOREM, AND US\$ 0.02 SPECIFIC TAX	POLICY OPTION 2: 80% AD VALOREM, AND US\$0.03 SPECIFIC TAX
Proposed Tax Policy Measure		<i>Current 45% ad valorem excise forecast-2018</i>	<i>Alternative Policy Scenario B018: 60% ad valorem and a uniform specific of US\$0.02/ 12 FCFA per stick</i>	<i>Alternative Policy Scenario B018: 80% ad valorem and a uniform specific of US\$ 0.03/ 18 FCFA per stick</i>
Total excise tax revenue (FCFA billion)	2018	14.73	38.99	43.35
Total excise tax revenue (US\$ million)		\$24.84	\$65.75	\$73.10
Total government revenue (excise, VAT, and levies, FCFA billion)		24.46	51.91	55.76
Total government revenue (excise, VAT and levies, US\$ million)		\$41.26	\$87.53	\$94.03

Source: WBG Staff estimates

Table 4.1 summarizes the results of modelling excise tax increases, including revenue mobilization options for 2018. Both scenarios are compared to current excise tax structure, projected to 2018.

Under Scenario A, an ad valorem tax rate increase is assumed from the current 45% to 60%, and establishment of a uniform specific excise tax<sup>4</sup> of US\$0.02 per stick. This policy option would assist Senegal to harmonize the excise tax structure under a mixed system with the proposed ECOWAS directive. Under Scenario B, a higher – 80% ad valorem excise tax rate is considered<sup>5</sup>, mixed with a US\$0.03 uniform specific tax.

### **Scenario A: 60% ad Valorem Tax and Specific Tax of CFAF 12 (US\$0.02) per cigarette in 2018**

The main results of this simulation exercise are as follows, in particular in terms of projections for 2018:

- A 17.1% drop in total cigarettes taxed (as a proxy to consumption of cigarettes).
- Increased State tax revenues from tobacco, from CFAF 24.46 billion (projected for 2018) to CFAF 51.91 billion
- Excise taxes on tobacco products grow from CFAF 14.73 billion to CFAF 38.99 billion
- The contribution of excise taxes to GDP increased from 0.15% to 0.39%
- The contribution to GDP of additional excise taxes on tobacco products rises from 0.003% to 0.24%, an increase of 79%.
- The average share of taxes in the price of a pack of cigarettes rises from 36.6% (2016) to 58%.

### **Scenario B: 80% ad Valorem Tax and Specific Tax of CFAF 18 (US\$0.03) per cigarette in 2018**

The main results of this simulation are as follows, in particular in terms of projections for 2018:

- A 35.6% drop in total cigarettes taxed (as a proxy to consumption of cigarettes).
- Increase in State tax revenues from tobacco, from CFAF 24.46 billion (projected for 2018) to CFAF 55.76 billion.
- Excise tax revenues on tobacco products climb from CFAF 14.73 billion to CFAF ?>43.35 billion.

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<sup>4</sup>Current best practice corresponds to a uniform specific excise tax, applied equally to economy, mid-price, premium and non-filter cigarettes. The uniform specific taxes, are adjusted regularly to account for increases in the price level and increases in average incomes.

<sup>5</sup>A It should be noted that ECOWAS (of which Senegal and the other WAEMU countries are members) provides for a maximum rate of 100%.

- The contribution of excise taxes to GDP increases from 0.15% to 0.43%.
- The contribution of additional excise taxes on tobacco products to GDP rises from 0.003% à 0.29%.
- The contribution to GDP of total government revenues (VAT, excise taxes, levies) rises from 0.24% to 0.55%.
- The average share of taxes in the price of a pack of cigarettes climbs from 36.6% (2016) to 61%.

### 3. Discussion

The modelling horizon focused on possible 2018 alternative scenarios to assess the potential impact of alternative policy options, compared to the projected revenue in 2018 under the current structure. These policy options would assist the Government of Senegal to harmonize the excise tax structure under a uniform mix system<sup>6</sup> with the proposed ECOWAS directive.

To simulate the baseline 2017 cigarette excise tax revenue, and the fiscal revenue impact of proposed tobacco tax increases in Senegal for 2018, the parameters of the simulation model<sup>7</sup> are as follows (details can be found in the tables included in Annex 1):

**Actual situation in 2013 to 2016, and 2017 baseline projections.** The model was run using the 2013 excise tax structure with two tiers with 40% low price cigarettes, and 45% premium cigarettes from January to December 2013, and 2014; and the uniform ad valorem excise tax of 45% for all cigarettes brands and categories (economy domestic, premium domestic, and economy and premium imported) excise tax structure set for following years 2015, 2016 and projected for 2017.

**Estimations of the average market retail price.** In the model, the average retail prices per 20 cigarettes pack of the different categories, were estimated using the equivalent classification (in brackets) used by the ANSD in the monthly basket price surveys for the period 2013 – 2017 as follows:

- Economy domestic ("*Cigarettes ordinaire locales ou produites sous licence*");
- Premium domestic ("*Cigarettes deluxe, locales ou produites sous licence*");
- Economy imported ("*Cigarette ordinaire importee*");
- Premium imported ("*Cigarette de luxe importee*")

<sup>6</sup>A uniform mix system is common in EU and many other countries where a uniform specific excise and an ad valorem tax apply to all tobacco products. In addition, many countries impose a minimum specific excise floor tax, so that the tax liability born by both excises does not fall below the minimum floor tax.

<sup>7</sup>The simulation model was developed using a WHO Tobacco Tax Simulation Model (TaXSiM) and adjusted to Senegal's current cigarette excise tax structure.

The simulation model was calibrated by considering the estimated total number of cigarettes taxed and the average market price for all the adopted categories in 2013 to 2016 and projected for 2017 (See Table 4.1).

With those figures, the model projected an excise tax revenue for the years 2013, 2014, 2015 and 2016. Comparing the expected excise tax revenue to be collected in 2016 according to the tax revenue forecasted by the model, it was 14.24 billion FCFA (US\$ 24.0 million) which is close to the 14.21 billion FCFA reported revenue by the end of 2016 (less than 0.2% difference).

The excise tax revenue reports from the MoF for 2013 to 2016 further allowed the calibration of the simulation model matching MoF reports within the model-predicted and actual figures (+/- 0.5%).

**Baseline Modelling outcome.** The excise tax revenue projected by the model for 2017 is estimated at FCFA 14.38 billion (US\$24.3 million), generating an additional revenue of only FCFA 143.4 million (about US\$0.24 million), equivalent to 0.002% of GDP. Including the excise tax, duties, levies and VAT on cigarettes, total government tobacco tax revenue is expected to reach FCFA 23.9 billion (or US\$40.3 million) or 0.23% of GDP.

**2018 projections from Baseline Modelling<sup>8</sup>.** The excise tax revenue projected by the model for 2018 with current excise tax structure, with an ad valorem tax rate only, is estimated at FCFA 14.73 billion (US\$24.8 million), generating an additional revenue of only FCFA 343.8 million (about US\$0.58 million), equivalent to 0.003% of GDP. Including the excise tax, duties, levies and VAT on cigarettes, total government tobacco tax revenue is expected to reach FCFA 24.5 billion (or US\$41.3 million) or 0.24% of GDP (see Table 4.2).

**Policy Option Scenario A for 2018 (low-end: 60% ad valorem tax rate coupled with the adoption of a \$0.02 specific tax per stick).** As observed in Table 4.2 below, the 2018 total excise tax revenue would exceed the expected revenue projected for 2017, with a total estimated amount of FCFA 39 billion (US\$65.8 million) more than double of the excise tax revenue projected for 2018 without the tax increase. Such result would be equivalent to generating an additional revenue of FCFA 24.6 billion (or about US\$41.5 million), or 0.24% of GDP. Including the excise tax, duties, levies and VAT on cigarettes, total government tobacco tax revenue would be expected to reach FCFA 52 billion (or US\$87.5 million) or 0.52% of GDP (see Table 4.2).

**Policy Option Scenario B for 2018 (high-end: 80% ad valorem tax rate and the adoption of an \$0.03 specific tax per stick).** As indicated in Scenario A, for the 2018, it will imply additional increase of the ad valorem to 80% compared with 45%

<sup>8</sup>It is assumed that the number of cigarettes taxed (as a proxy for consumption) will continue growing in 2018 as estimated in 2017 (1.1%), with a relative small price increase, from an average retail price of US\$0.98 in 2017 to \$1.02 per 20 cigarettes pack

without tax increase, plus the adoption of an uniform specific tax of US\$0.03 (FCFA 18) per stick. As observed in Table 4.2 below, the 2018 total excise tax revenue under this scenario, would generate an amount well above the expected revenue for 2017, with an estimated FCFA 43.4 billion (US\$73.1 million) slightly more than three times the excise tax revenue projected for 2017. Such a result would be equivalent to generating an additional revenue of FCFA 29 billion (or about US\$48.8 million), equivalent to 0.29% of GDP.

Including the excise tax, duties, levies and VAT on cigarettes, total government tobacco tax revenue would be expected to reach FCFA 55.8 billion (or US\$94 million) or 0.55% of GDP (see Table 4.2 below).

**Table 4.2: Results of modelling scenarios A and B for 2018 - Preliminary GDP Impact Assessment [1]**

GOVERNMENT REVENUE TYPE	Baseline: Current 45% ad valorem excise forecast-2017	Expected Contributions to GDP	Current 45% ad valorem excise forecast-2018	Expected Contributions to GDP	Alternative Policy Scenario B018: 60% ad valorem and a uniform specific of US\$0.02/ 12 FCFA per stick	Expected Contributions to GDP	Alternative Policy Scenario B018: 80% ad valorem and a uniform specific Of US\$ 0.03/ 18 FCFA per stick	Expected Contributions to GDP
Total cigarettes taxed (billion pieces) [1]	2.30		2.33		1.91		1.48	
Average cigarette price (FCFA per pack)	581.46		603.62		937.29		1,695.38	
Average cigarette price (US\$ per pack)*	\$0.98		\$1.02		\$1.58		\$2.86	
Average excise tax (FCFA per 1000 pieces)	6246.2		6,326.0		20,434.7		29,246.3	
Average excise tax (US\$ per 1000 pieces)	\$10.53		\$10.67		\$34.46		\$49.32	
Total excise tax revenue (billion FCFA)	14.38		14.73		38.99		43.35	
Total excise tax revenue (US\$ million) [1]	\$24.26	0.15%	\$24.84	0.15%	\$65.75	0.39%	\$73.10	0.43%
Additional tobacco excise (million FCFA) /percentage of GDP	143.4		343.8		24607.0		28963.0	
Additional tobacco excise (US\$ million) *	\$0.24	0.002%	\$0.58	0.003%	\$41.50	0.24%	\$48.84	0.29%
Total government tobacco tax revenue (excise, VAT and levies, billion FCFA) [1]	23.90		24.46		51.91		55.76	
Total government revenue (excise, VAT and levies, US\$ million)	\$40.30	0.26%	\$41.26	0.24%	\$87.53	0.52%	\$94.03	0.55%
Percentage change in total cigarette consumption (%)	1.1		1.1		-17.1		-35.6	

\*World Bank Group Forecast;

[1] Projected by the simulation model from calibrations made for 2016 with the number of taxed cigarettes and the assumptions made included in Annex 1.

Under Scenarios A and B, it is estimated that the year-to-year tax and price increases would be above the expected inflation of 1.8% for 2018, and the estimated GDP per capita growth of 3.9%—this scenario would imply that the consumer prices would be higher in real terms as they will be adjusted for inflation and per capita GDP growth, and would contribute to effectively lower consumption. Without new taxes, the projected number of cigarettes taxed (as a proxy for consumption) for 2018 is expected to increase 1.1%. However, the estimated increase in cigarette average retail price in both scenarios is expected to result in a reduction of the number of cigarettes subject to excise tax (as a proxy for consumption) under Scenario A by 17%; and an estimated 35% under Scenario B, as compared to the expected increase in 2017.

As observed in Table 4.3 below, the excise tax increase under Scenario A brings the average retail price increase for 20-cigarette pack from projected FCFA 604 (US\$1.02) to FCFA 937.29 (US\$1.58) in 2018. Meanwhile Scenario B would bring the average retail price to FCFA 1,695 (\$2.86) for the same year. Despite this increase the average cigarette tax burden (total tax - excise, VAT, duties, and levies as%age of retail price) ranging between 58% to 61% although improved, remains below the 70% recommended by WHO to have a substantial impact on consumption, leaving opportunities for major increases in the excise taxes.

**Table 4.3: Modelling outcomes for 2017 (baseline) and 2018 (forecast) Current Excise Tax and Scenarios A & B**

SUMMARIZED OUTPUT	Baseline: Current 45% ad valorem excise forecast 2017	Current 45% ad valorem excise forecast 2018	Alternative Policy Scenario B018: 60% ad valorem and a uniform specific of US\$0.02/ 12 FCFA per stick	Alternative Policy Scenario B018: 80% ad valorem and a uniform specific Of US\$ 0.03/ 18 FCFA per stick
<b>CIGARETTES</b>				
Total cigarettes taxed (billion pieces)	2.30	2.33	1.91	1.48
Average cigarette price (FCFA per pack)	581.46	603.62	937.29	1,695.38
Average cigarette price (US\$ per pack)	\$0.98	\$1.02	\$1.58	\$2.86
Average excise tax burden (excise tax as%age of retail price)	21.5	21.0	43.6	34.5
Average excise tax (FCFA per 1000 pieces)	6,246.2	6,326.0	20,434.7	29,246.3
Average cigarette tax burden (total tax - excise, VAT, duties, and levies as%age of retail price)	35.7	34.8	58.0	61.0
Total excise tax revenue (billion FCFA)	14.38	14.73	38.99	43.35
Total government tobacco tax revenue (excise, VAT, and levies, billion FCFA)	23.90	24.46	51.91	55.76
Total expenditure on cigarettes (billion FCFA)	66.95	70.27	89.42	125.64
<b>Percentage change in (year to year):</b> Total cigarette consumption (%)	1.1	1.1	-17.1	-35.6

Table 4.4<sup>9</sup> presents an average retail price comparison (premium and low cost) among the four WAEMU member countries including Senegal (out of eight) which are currently applying the 45% maximum rate mandated by the WAEMU directive. The shaded blue countries are ECOWAS member countries. For 2016, the average premium retail prices in comparable US Dollars, Senegal shows the lowest price among the seven selected countries, including the four WAEMU countries.

From Table 4.4, although the projected average price increase for a pack of cigarettes in Senegal for 2018 in Scenario A (\$1.58) is only above Gambia's premium cigarette pack, when compared to the premium imported at 2018 prices projected in Scenario A (US\$1.92), it would exceed Gambia and Benin, but would remain under the other countries in the table. Only under Scenario B, the projected average retail price of premium imported cigarettes of US\$3.26 reach a comparable price with those in Cabo Verde, and above the rest of countries in the Table. ECOWAS proposal by setting a minimum ad valorem of 50% and the uniform specific excise tax under a mix system, reduces price differentials among its member states, while allowing the governments to go further if they desire to increase excise tax.

**Table 4.4: Retail price for a pack of 20 cigarettes - premium brand in selected African countries\***

2016 AVERAGE RETAIL PRICES	PRICE OF A 20-CIGARETTE PACK OF MARLBORO OR ANOTHER PREMIUM BRAND			
	COUNTRY	IN REPORTED CURRENCY	CURRENCY REPORTED	IN US\$ AT OFFICIAL EXCHANGE RATES
	Benin [1]	1,000.00	XOF	1.69
	Cabo Verde [1]	300.00	CVE	3.02
	Gambia [1]	60.00	GMD	1.44
	Ghana [1]	10.00	GHS	2.53
	Niger [1]	1,500.00	XOF	2.54
	Senegal [1]	700.00	XOF	1.19
	Togo [1]	1,200.00	XOF	2.03

\*Source: Global Tobacco Control Report, 2017 - National retail price for a pack of 20 cigarettes of premium brand

[1] WAEMU member States;

[2] ECOWAS member States;

## 4. Illicit Tobacco Trade

According to previous research by the Guardian/Observer (Doward – 2013),<sup>10</sup> the total value of the illicit tobacco trade in northern Africa is thought to exceed \$1bn (£632m). The United Nations Office on Drugs and Crime (UNODC) estimates that Africans smoke 400bn cigarettes a year, of which 60bn are bought on the black market. WHO<sup>11</sup> estimates the illicit tobacco trade in Africa to be around 10.6% of the total share of retail sales. WHO also

<sup>9</sup>Source: WHO Report on the Global Tobacco Epidemic, 2017 - Monitoring Tobacco Use and Prevention Policies

concludes that seizure statistics mostly reflect the strength of customs activity rather than the size of the illicit trade problem.

According to WHO, one in every 10 cigarettes might be illicit. From a health perspective, increased availability and affordability of untaxed and inexpensive cigarettes puts more people at risk of being harmed because of increased smoking, addiction to a deadly product, and the resulting ill health, premature mortality and disability associated with tobacco-related diseases. From a fiscal perspective, the illicit tobacco trade only benefits a few (often criminal) enterprises at the cost of tax revenues forgone by the government.

One illicit tobacco trade study carried out in South Africa (Blecher – 2010)<sup>12</sup> concluded: “At its current levels illicit trade counts for less than 10% of the total market. It is likely that if the government pursues a more aggressive taxation strategy again in the future that total consumption (not only legal consumption) will fall and government revenue will rise even if there is some growth in illicit trade.”

Based on available evidence, in order to estimate the illicit trade cost in foregone excise taxes due to an increase in the cigarettes excise taxes in Senegal, the following assumptions were made:

- Apply the WHO estimate of 10.6% illicit trade for Africa (see reference above);
- Increase in illicit market share as a result of the increase in the excise tax, %age of the total market (2%) (Corne Van Walbeek – 2013)<sup>13</sup>.

Applying the calibrated Simulation Model outputs for the 2018 projections and the simulations 1 and 2, Table 4.5 shows the results.

Based on (a) the default set of inputs; (b) the price and income elasticity assumptions for the different categories; and (c) the imposition of a 60% ad valorem and FCFA 240.00 uniform specific excise tax per pack, it would be expected to increase the average retail price from FCFA 581.46 in 2017 to FCFA 937.29 in 2018; it would decrease the legal consumption from 11.5 million packs to 9.54 million packs, increase illicit consumption from 1.22 million packs to 1.41 million packs, and, raise FCFA 38.99 billion in excise tax revenue (Scenario A). Comparing the projected increase of excise revenue (FCFA 24.6 billion) with the estimated foregone excise tax revenue close to FCFA 78 million, it would represent a relatively low risk of about 0.3% in additional revenue loss due to the marginal illicit trade generated by the tax increase.

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<sup>10</sup> <https://www.theguardian.com/world/2013/jan/27/cigarette-smuggling-mokhtar-belmokhtar-terrorism>

<sup>11</sup> WHO – Illicit Trade in Tobacco a Summary of the Evidence and Country Responses

<sup>12</sup> A mountain or a molehill: is the illicit trade in cigarettes undermining tobacco control policy in South Africa?; Evan Blecher; Published online: 30 April 2010, # Springer Science+Business Media, LLC 2010

<sup>13</sup> A Simulation Exercise for an Additional Levy on Tobacco Products in Namibia, Corne van Walbeek, and Patricio Marquez, May 2013.

If the increase excise tax were to be imposed under Scenario B (80% ad valorem and FCFA 360 per pack), the average retail price would increase by a greater amount, consumption would drop by a greater amount, and more revenue would be raised (Scenario B)<sup>14</sup>.

**Table 4.5: Modelling the impact of illicit tobacco trade under Scenarios A and B**

SUMMARIZED OUTPUT	Baseline: Current 45% ad valorem excise forecast -2017	Current 45% ad valorem excise fore- cast-2018	Alternative Policy Scenario B018: 60% ad valorem and a uniform specific of US\$0.02/ 12 FCFA per stick	Alternative Policy Scenario B018: 80% ad valorem and a uniform specific Of US\$ 0.03/ 18 FCFA per stick
<b>CIGARETTES</b>				
Total cigarettes taxed (billion pieces)	2.30	2.33	1.91	1.48
Legal consumption (million packs)	11.51	11.64	9.54	7.41
Illicit consumption (million packs)	1.22	1.23	1.41	1.37
Average cigarette retail price (FCFA per pack)	581.46	603.62	937.29	1,695.38
Average excise tax burden (excise tax as%age of retail price)	21.5	21.0	43.6	34.5
Total excise tax revenue (billion FCFA)	14.38	14.73	38.99	43.35
Total foregone excise tax revenue (est. million FCFA)			77.98	86.70
<i>Percentage change in (year to year):</i> Total cigarette consumption (%)	1.1	1.1	-17.1	-35.6

Source: World Bank Staff estimates

## 5. Implications in Terms of Tax Policy

Implementation of these scenarios will allow the State to reduce the number of cigarettes taxed for local consumption and thus the prevalence of tobacco, and increase tax revenues and the contribution of tobacco taxes to GDP. The second scenario yields more significant results for the attainment of these objectives.

Given the less than convincing results of the rates currently in force across all indicators (consumption, tax revenues, price increases, etc.) we believe it is vital to step up tax legislation on tobacco products by moving in the direction of the proposed scenarios. The 45% rate currently applied does not appear sufficient to bring about the real changes needed for attaining the objective of significantly reducing consumption.

In addition to these scenarios, the State could roll out other tools to increase tax revenues from tobacco by eliminating certain exemptions, in particular those on the import and export of tobacco products.

## 6. Implications on the Viability of the Tobacco Industry in Senegal

It bears recalling that the PSE focuses on several key areas including the broadening of access to social services and welfare programs and the preservation of the conditions for

<sup>14</sup> Note: This analysis assumes that the illicit market increases by 2%age points in both scenarios, something that may be disputed, but that can be adjusted for in the model

sustainable development. The public health goal is clearly set forth in the PSE - to provide Senegal with healthy and available human resources. Achieving this objective assumes that the health of the population will be protected, in particular against tobacco externalities.

The issue is whether the increase in the rate of the ad valorem tax and the introduction of a specific tax could negatively affect the viability of the tobacco industry in Senegal.

In Senegal, the tobacco companies export roughly 64% of their production. As a result, the proposed increase in the tobacco tax will impact only around 36% of their production, which is for local consumption.

Consequently, it is our opinion that the newly proposed taxation system, while allowing the tax hike to be more effectively passed on to the price of cigarettes consumed in Senegal, will not impact in any significant way the overall production of the tobacco industry and consequently, its viability.

Indeed, the tax increase will have no effect on exports. Similarly, in terms of local consumption, we are of the view that it will be less the tax increase that will affect the viability of the cigarette companies. The desirable effect is for motivating the industry to pass the increase to consumers rather than neutralize the price increase in order to maintain consumption levels.

Finally, it is important to point out that it is a generally well-known fact that fiscal criteria are not a primary consideration when a company decides where to establish itself, but it often plays a role after other criteria are examined, such as:

- The degree of regulation in terms of required procedures to create a company and ensure one's investment,
- The consequences of regulations such as time periods and costs required to execute a contract, complete bankruptcy procedures or import and export goods.
- The extent of legal protections for property; for example, the protection of investors against abuse by executives of the company or the variety of assets that can be used as a guarantee in accordance with the laws on guaranteed transactions.

Similarly, we believe that the loss to the State caused by the use of tobacco in terms of the costs to public health and a drop in the productivity of the population affected seems more significant than the gain in terms of duties and taxes generated by the tobacco industry. A study of the economic and budgetary impact of tobacco use in Senegal is recommended to enlighten all policymakers on this issue.



# 5

## CONCLUSIONS, POLICY RECOMMENDATIONS, AND DISCUSSIONS OF OPPORTUNITIES TO RAISE TAXES ON TOBACCO

### 1. Overview

Raising the price of tobacco through increased tobacco taxes is the most effective and efficient way to reduce tobacco use. Tobacco taxation could also be a notable contributor to fiscal revenue collection for expanding the fiscal space in Senegal to provide financing for various health programs. Given current fiscal pressures, it is relevant and timely to focus on using tobacco taxation increases as a source of additional public revenues over the near and medium-terms.

By introducing the uniform specific excise tax, the cigarette producers and importers will no longer have the past leverage to absorb the tax increase and undermine the expected tax-induced price increase. In that case, the excise price increase will be implemented across the board to all categories and cigarette brands, independent from the declared CIF or ex-factory cost. Furthermore, as recommended in the WAEMU-WHO report, “the continued increase in excise tax will push the boundary of tax share in retail price upward resulting in revenue gain for the government”.

Due to the multiplier impact of a mix system (ad valorem and uniform specific), manufacturers have less incentive to upgrade the products and increase retail prices at minimum rate in response to a tax increases. Consumers on the other hand, under a uniform mix system, will have less incentives to switch down to cheaper cigarette brands. The use of specific excise taxes enhances the impact of tobacco taxation on public health by reducing price gaps between premium and lower-priced alternatives, which limits opportunities for users to switch to less-expensive brands in response to tax increases. Taxing all tobacco products comparably reduces incentives for substitute.

**While high taxes may create incentives for illicit trade,** evidence indicates that other factors have a much bigger effect on illicit trade of tobacco products. The trade thrives where the potential for illicit gains is high, and the risk to illegal operators is low.

More specifically, as noted in a new report by the World Health Organization (WHO), factors driving illicit trade include: the ease and cost of operating in a country, tobacco industry participation, sophistication of crime networks, and low capacity in a nation's tax administration system, and the likelihood of being caught and punished.

**Annexes 3 and 4** below elaborate on the successful policy measures adopted in different countries to control illicit tobacco trade even in the context of high taxes and prices for these products.

An important policy option to consider is to introduce the uniform specific excise tax following the new ECOWAS draft directive which provides for the adoption of a minimum excise tax of 50%, the elimination of all tax exemptions on tobacco products (Article 6), as well as the obligatory application of a combination of ad valorem and specific taxes. This is a step towards cigarette excise tax harmonization by Senegal with the ECOWAS member states, establishing a uniform specific excise tax under a mix system – in line with international best practice – as proposed under Scenarios A and B for 2018.

## 2. Maintain Tobacco Import Exemptions on Cigarettes?

The issue here is whether the exemption of excise duties on imported raw materials for the production of tobacco should be continued.

Article 433 of the General Tax Code (CGI) exempts the specific tax on tobacco, bulk tobacco, and tobacco in bunches (maniques) or in leaves, when they are intended for the production in Senegal of cigars, cigarillos, cigarettes, smoking tobacco and other uses such as chewing or as snuff.

Let us assess the gains that the State could derive from imports in 2016 if import exemptions did not apply.

**Table 5.1: Estimate of potential gain in tax revenues if exemptions on tobacco imports were eliminated**

Total excise duties not assessed on imports of tobacco products	6,825,027,810
Total excise duties assessed on imports of tobacco products	247,138,744
Excise duty potential on imports of tobacco products	7,072,166,554

Source: DGD data

The gain would be more than CFAF 7 billion per year instead of CFAF 247,138,744 collected by the State on imports of tobacco intended for the production of cigarettes.

Given this enormous potential, the issue is whether Senegal should continue its policy of not taxing tobacco received in bulk for the production of cigarettes. Alternatively, in line with the policy on alcoholic products, a general assessment system for all imports including bulk tobacco for the production of cigarettes in Senegal could be introduced. These assessments would be levied once the products are released for consumption and the taxes paid would be set off against taxes already collected, with no possibility of a reimbursement.

This second option paves the way for excise taxes to be levied at least once on all tobacco products, without exception (whether or not the products are raw materials for the tobacco industry, or whether or not they are for the production of a good for export), once the product is made available for consumption in Senegal, or after the first sales transaction is realized.

Knowing that no taxes will be applied to the resale of an already taxed tobacco product in Senegal or to tobacco exports, the second option will have the following advantages:

- Tobacco products will not be taxed twice;
- The government will be able to collect excise taxes quickly on all tobacco products at least once and eliminate all risks on imported products temporarily exempted from the tobacco tax.

### 3. Continue the Exemption on Tobacco Exports?

A look at the changes over the past several years in the legal provisions governing the tax exemptions on tobacco exports helps to better understand the reasons for these exemptions.

**Table 5.2: Changes in the legal provisions governing tax exemptions on tobacco exports**

GENERAL TAX CODE (CGI) BEFORE 2013	GENERAL TAX CODE (CGI) AFTER 2013
The exemption stated as follows: The exports and resale of tobacco already subject to the scheduled tax	The export exemption is phrased differently. The new wording “exports of products subject to tax” appears to exclude from exemption the exports of tobacco not already subject to tax.

Prior to 2013, exports were simply exempted from the tax on tobacco while resale of tobacco products was only exempted if the products had already been subject to taxation at the first sale.

After 2013, the exemption of tobacco exports was written differently. The new wording for the exemption of tobacco exports leaves room for interpretation and allows the tax administration to interpret it favorably by excluding from exemption all tobacco products that have not already been subject to excise taxes in Senegal.

Such an interpretation, provided that it conforms to the accepted spirit of exemption, allows the government to limit the scope of tax exemption of exports and increase tax revenues. This interpretation gains credibility from the fact that the WAEMU and ECOWAS directives on excise taxes contain no provisions for any exemption.

**Table 5.3: Evaluation of the benefit in potential tax revenues if exemptions on the export of tobacco are eliminated and the tobacco industry is retained in Senegal**

Volume of exports of tobacco products in 2015 (in CFA Francs)	55,300,000,000
Applicable excise duty rate (in CFA Francs)	45%
Potential excise taxes on tobacco exports in 2015 (in CFA Francs)	24,885,000,000

Source: ANSD data

The gain would be more than 24.8 billion CFA Francs per year instead of zero CFA Francs collected by the State on the export of tobacco.

#### 4. Should Senegal Continue to Exempt Tobacco Exports and Products from Excise Taxes?

- Impact of eliminating the exemption for the tobacco industry
- Impact on the industry of eliminating exemptions for importing tobacco products in bulk to produce cigarettes

Beyond the fact that the proposal to eliminate is in keeping with WAEMU and ECOWAS directives currently in effect, elimination of the exemption would not result in the double taxation of the products in question.

It would simply allow the Government of Senegal to ensure the amount of tax revenues by collecting the tax when the products are imported and allow the tobacco companies,



(similar to what is done with alcohol), to charge the tax, which is paid at customs, against the tax due when the cigarette produced is sold in Senegal. There would be no double taxation, because each year the tax on tobacco collected locally on local sales of the tobacco companies is far greater than what would be paid on imported bulk tobacco products.

## **5. The Impact on the Industry of Eliminating the Exemption of Taxes on Exported Tobacco Products**

The impact of eliminating the export exemptions will be real. In our opinion, a decision of this kind should only be envisaged together with all WAEMU and ECOWAS countries.

If done in isolation by Senegal, it would end the export of cigarettes by the companies in Senegal and benefit the companies of other countries in the Union. The risk of offshoring tobacco companies to other WAEMU countries or ECOWAS countries would be real.



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# ANNEXES

## Annex A1: Presentation of data collected, and resource persons

SOURCES	DATA RECEIVED	RESOURCE PERSONS
MEFP	Philip Morris VAT declarations from 2013 to 2016;	Mor SALL, Technical Advisor to the Minister of Economy, Finance and Planning, Chairman of Steering Committee
	Philip Morris excise duty declarations from 2013 to 2016;	
	Philip Morris financial statements from 2013 to 2016.	
DGID / CGE (Center for Major Businesses)	VAT declarations of the two tobacco companies from 2013 to 2016;	Mr. Cheikh Ahmed Tidiane BA, DGID (General Directorate of Taxes and Public Lands)
	VAT reimbursements benefiting Philip Morris;	Mr. Bassirou Samba Niasse (DGID)
	MTOA excise duty declarations from 2013 to 2016;	Mr. Hady DIEYE, Director of the CGE Ms. Yama KOUYATÉ DIABY, Chef Office Director DGID
	Amount paid by MTOA following a tax adjustment;	Mr. Magatte DIAKHATÉ, Office Director DGID Mr. Ahmet Tidiane BA - Assistant to Bureau Chief, CGE Collections
	Collection of VAT and excise duties from Philip Morris;	Mr. Assane DIOUF, Brigade Chief
	VAT and excise duty collection from MTOA;	Mr. Yatta DIOP, CGE, DGID Mr. Amadou Tidiane MAR, CGE, DGID
	MTOA Financial Statements from 2013 to 2015.	Pape Ousmane GUEYE, Customs Head Office

SOURCES	DATA RECEIVED	RESOURCE PERSONS
DGD / DSID (Office of Customs Information Systems)	Duties paid on imported tobacco products from 2013 to 2016 (customs duties, VAT, domestic tax (excise duty), surtax, Community Solidarity Contribution, COSEC Contribution ECOWAS Community Levy, late payment interest	Mr. Demba SAKHO, DGD
	Export of tobacco products from 2013 to 2016.	
Members of the Committee	<p>Mr. Abdoulaye GNINGUE, Taxes and Public Lands Inspector</p> <p>Mr. Abdoulaye FAYE (General Directorate - Taxes and Public Lands)</p> <p>Mr. Ansou Souba BADJI (Foreign Trade Head Office);</p> <p>Samuel NDIONE (Domestic Business Head Office);</p> <p>Ms. Anta FALL DIALLO (Economic Policy Coordination and Monitoring Unit (UCSPE)/ Director General for Planning and Economic Policy (DGPPE)/MEFP)</p> <p>Mr. Bachir NDIAYE (Customs Head Office)</p> <p>Mr. Cherif Habidine BA (DGCPT)</p> <p>Mr. Mor Cissé (DGCPT/MEFP)</p> <p>Mr. Djibril BEYE (PNLT at MSAS) - National Anti-Tobacco Campaign at Ministry of Health and Social Action</p> <p>Mr. Dominique TINE (DGD): Customs Head Office</p> <p>Mr. El Hadj Omar SENHOR (ANSD): National Agency of Statistics and Demography)</p> <p>Mr. Mamadou DAFFE (ANSD)</p> <p>Ms. Gomis Anna Pondou Katieusse (MSAS, PNLT)</p> <p>Ms. Nogaye DIENG NDIAYE (PNLT)</p> <p>Mr. Oumar BA (PNLT)</p> <p>Mr. Ismaila DIALLO (Technical Advisor MEFP)</p>	

## Annex A2: The main anti-tobacco laws of Senegal 1980-2016

Law	Principal Measures
Law No. 81-58 of 09 November 1981	<ul style="list-style-type: none"> <li>• Prohibition on advertisement of tobacco products and their use in certain public places</li> </ul>
Law No. 85-23 of 25 February 1985	<ul style="list-style-type: none"> <li>• Amendment to Law No. 81-58 : criminal penalties stipulated in Article 13 of said law and a review of the list of places where it is allowed to smoke</li> </ul>
Law No. 92-40 of 09 July 1992 General Tax Code	<ul style="list-style-type: none"> <li>• Uniform rate of 30% applicable to all products. No distinction was made among the different types of products</li> </ul>
Law No. 2002-07 of 22 February 2002	<ul style="list-style-type: none"> <li>• Different tax rates for low-cost cigarettes (15%) and premium cigarettes (30%)</li> <li>• Higher level of taxation: excise duty of 16% for low-cost cigarettes and 40% for premium cigarettes</li> </ul>
Law No. 2004-30 of 12 August 2004	<ul style="list-style-type: none"> <li>• Introduction of a new category of cigarettes (standard cigarettes) taxed at 31%</li> <li>• Ratification of the WHO Framework Convention on Tobacco Control</li> </ul>
Law No. 2004-36 of 14 December 2004	<ul style="list-style-type: none"> <li>• The rate of the excise duty increases to 20% for low-cost cigarettes and 45% for premium cigarettes</li> </ul>
Law No. 2009-19 of 09 March 2009	<ul style="list-style-type: none"> <li>• Elimination of the "standard" category introduced in 2004</li> <li>• Maintenance of certain cigarettes in the premium category (reaction to declassification strategies adopted by tobacco companies to pay less tax on cigarettes in the premium category)</li> </ul>
Decree No. 14202 of 12 December 2011	<ul style="list-style-type: none"> <li>• Tax rate revised up to 40% for the low-cost category and 45% for the premium</li> </ul>
Law No 2012-31 of 31 December 2012 (effective as of January 2013)	<ul style="list-style-type: none"> <li>• Amendment to Article 434 of the General Tax Code (CGI)</li> <li>• Institution of a single 45% rate</li> </ul>
Law No. 2014-29 of 27 October 2014 (effective as of November 2014)	<ul style="list-style-type: none"> <li>• Distinction between low-cost and premium cigarettes is abolished, resulting in a 5% increase in the tax on low-cost cigarettes.</li> </ul>

### Annex A3: Demographic indicators: Population of Senegal

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Total Population	13,508,715	13,926,253	14,356,575	14,799,859	15,256,346	15,726,037	16,209,125	16,705,608	17,223,497	17,738,795	18,275,743
Percentage 0-4 years	15.73	15.88	16.05	16.22	16.42	16.63	16.55	16.45	16.35	16.25	16.14
Percentage 5-14 years	26.17	26.01	25.83	25.65	25.44	25.22	25.28	25.35	25.42	25.49	25.57
<b>Percentage 0-14 years</b>	<b>41.9</b>	<b>41.89</b>	<b>41.88</b>	<b>41.87</b>	<b>41.86</b>	<b>41.85</b>	<b>41.83</b>	<b>41.8</b>	<b>41.77</b>	<b>41.74</b>	<b>41.71</b>
Persons under 15 years	5,660,152	5,833,707	6,012,534	6,196,701	6,386,306	6,581,346	6,780,277	6,982,944	7,194,255	7,404,173	7,622,812
Percentage 15-64 years	54.37	54.42	54.47	54.5	54.53	54.56	54.57	54.59	54.6	54.61	54.62
Percentage 65 or older	3.73	3.69	3.65	3.63	3.61	3.6	3.6	3.61	3.63	3.65	3.67
<b>Percentage of Persons aged 15 or older</b>	<b>58.1</b>	<b>58.11</b>	<b>58.12</b>	<b>58.13</b>	<b>58.14</b>	<b>58.16</b>	<b>58.17</b>	<b>58.2</b>	<b>58.23</b>	<b>58.26</b>	<b>58.29</b>
<b>Persons aged 15 or older</b>	<b>7,848,563</b>	<b>8,092,546</b>	<b>8,344,041</b>	<b>8,603,158</b>	<b>8,870,040</b>	<b>9,146,263</b>	<b>9,428,848</b>	<b>9,722,664</b>	<b>10,029,242</b>	<b>10,334,622</b>	<b>10,652,931</b>

Source: Population estimates for Senegal/MEFP/ANSD- August 2015

### Annex A4: Passive smoking in Senegal

	MEN (%)	WOMEN (%)	OVERALL (%)
Adults exposed to tobacco smoke at the workplace	33.0	25.1	30.4
Adults exposed to tobacco smoke at home at least once a month	24.5	19.0	21.6
Adults exposed to tobacco smoke at the following public places			
Administrative buildings	26.8	20.3	24.2
Health care facilities	11.7	9.1	10.2
Restaurants	27.0	32.9	28.8
Public transport	17.5	10.9	14.3
Universities	61.1	50.2	57.0
Schools	22.0	19.0	20.7

Source: GATS (2015)

**Annex A5: Prevalence of tobacco use among 13-15 year-olds in Senegal - 2002 and 2007**

Prevalence	2002			2007		
	Total	Boy	Girl	Total	Boy	Girl
Ever smoked cigarettes	20.3 (17.3 - 23.9)	32.7 (27.7 - 38.2)	5.2 (3.5 - 7.6)	12.8 (8.5 - 18.9)	20.7 (13.8 - 29.9)	5.2 (3.1 - 8.7)
Ever Smokers, first smoked cigarettes before age 10	19.3 (15.4 - 23.9)	19.4 (15.4 - 24.3)	18.0 (8.4 - 34.7)	25.9 (18.3 - 35.2)	24.3 (18.2 - 31.5)	38.9 (19.6 - 62.4)
Current cigarette smoker	13.2 (10.9 - 15.8)	20.2 (16.4 - 24.7)	4.4 (3.0 - 6.6)	7.5 (4.6 - 12.1)	12.1 (7.6 - 18.9)	2.7 (1.3 - 5.4)
Current user of other tobacco products	5.4 (4.1 - 7.0)	7.3 (5.5 - 9.8)	2.9 (2.0 - 4.2)	9.3 (5.5 - 15.3)	11.7 (8.4 - 15.9)	7.7 (3.0 - 18.0)
Never smokers likely to initiate smoking in the next year	15.6 (12.7 - 19.1)	17.7 (14.0 - 22.3)	13.9 (10.6 - 22.3)	31.0 (20.0 - 44.6)	37.2 (24.4 - 52.2)	27.7 (17.6 - 40.8)

Source: GTYS (2002 &amp; 2007)

**Annex A6: Knowledge, attitude and perceptions about tobacco**

	CURRENT SMOKERS (%)	NON-SMOKERS (%)	OVERALL (%)
Adults who think that smoking can cause serious illness	92.5	93.9	93.9
Adults who think that smoking causes:			
Lung cancer	88.1	92.9	92.7
Heart attack	71.9	71.3	71.3
Stroke	66.1	67.8	67.7
Adults who think that second-hand smoke causes serious illness for non-smokers	87.4	92.1	91.9
	CONSUMERS OF SMOKELESS TOBACCO (%)	NON-CONSUMERS (%)	OVERALL (%)
Adults who think that consumption of smokeless tobacco causes serious illness	74.5	79.1	79.0

**Annex A7: Average duration of tobacco consumption, age group and sex**

Age group (years)	Men		Women		Overall	
	Number of persons	Average duration	Number of persons	Average duration	Number of persons	Average duration
18-29	45	8.5	-	-	45	8.5
30-44	113	17.6	6	22.0	119	17.8
45-59	73	28.1	1	14.0	74	27.9
60-69	18	42.1	2	37.0	20	41.6

Source: STEP (2015)

**Annex A8: Average age smoking begins**

Average age at the start of tobacco use						
Age group (years)	Men		Women		Overall	
	Number of persons	Average Age	Number of persons	Average Age	Number of persons	Average Age
18-29	45	16.7	0	0	45	16.7
30-44	113	19.1	6	17.5	119	19.0
45-59	73	21.2	1	39.0	74	21.4
60-69	18	19.1	2	27.5	20	19.9
<b>18-69</b>	<b>249</b>	<b>19.3</b>	<b>9</b>	<b>22.1</b>	<b>258</b>	<b>19.4</b>

Source: STEP (2015)

**Annex A8a: Prevalence of diabetes and prevalence of impaired fasting glycemia, by age group and gender**

Age group (years)	Hyperglycemia or diabetes treatment and/or diagnosis of diabetes						Abnormal glycemia on an empty stomach* by age and gender					
	Men		Women		Overall		Men		Women		Overall	
	Number of Persons	%	Number of Persons	%	Number of Persons	%	Number of Persons	%	Number of Persons	%	Number of Persons	%
18-29	564	0.3	1036	0.8	1600	0.6	564	1.6	1036	1.1	1600	1.3
30-44	553	1.8	1126	1.3	1679	1.5	553	1.7	1126	2.3	1679	2
45-59	391	8.1	597	2.9	988	5.4	391	0.5	597	1.6	988	1.1
60-69	172	6.2	200	5.6	372	5.9	172	1.1	200	6.6	372	3.9
<b>18-69</b>	<b>1680</b>	<b>2.5</b>	<b>2959</b>	<b>1.6</b>	<b>4639</b>	<b>2.1</b>	<b>1680</b>	<b>1.4</b>	<b>2959</b>	<b>1.9</b>	<b>4639</b>	<b>1.7</b>

Source: STEP (2015)

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**Annex A9: Macroeconomic indicators for Senegal**

Subject Descriptor	Units	Scale	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Average Exchange rate Local currency 1US\$ (Estimate)			493,891	493,631	591,154	592,711	617,459	619,430	619,353	618,937	620,644	624,085
Gross domestic product, constant prices	National currency	Billions	5492.26	5730.43	6102.17	6503.31	6944.93	7431.44	7956.53	8521.02	9126.76	9714.97
Gross domestic product, constant prices	Percent change		3.60	4.34	6.49	6.57	6.79	7.01	7.07	7.10	7.11	6.45
Gross domestic product, current prices	National currency	Billions	7338.23	7583.17	8078.11	8763.23	9528.01	10391.56	11318.68	12334.80	13451.22	14585.50
Gross domestic product, current prices	U.S. dollars	Billions	14.86	15.36	13.67	14.79	15.43	16.78	18.28	19.93	21.67	23.37
Gross domestic product, constant prices	National currency	Units	388835.81	394127.11	407725.98	422136.30	437946.37	455260.98	473528.04	492661.05	512634.58	530111.40
Gross domestic product, current prices	National currency	Units	519524.84	521554.76	539751.52	568880.05	600835.15	636602.63	673624.43	713162.67	755531.49	795878.55
Gross domestic product, current prices	U.S. dollars	Units	1051.91	1056.57	913.05	959.71	973.09	1027.72	1087.65	1152.24	1217.31	1275.28
<b>Real GDP growth</b>			3.60	4.30	6.50	6.60	6.80	7.00				
Inflation, average consumer prices	Index		104.51	103.38	103.51	104.39	106.39	108.54	110.73	112.97	115.25	117.58
Inflation, average consumer prices	Percent change		0.71	1.08	0.13	0.85	1.92	2.02	2.02	2.02	2.02	2.02
Inflation, end of period consumer prices	Percent change		0.08	0.78	0.39	2.06	1.91	2.02	2.02	2.02	2.02	2.02
General government revenue	National currency	Billions	1659.00	1877.21	2026.44	2334.65	2383.76	2567.62	2783.27	3018.69	3310.31	3421.68
General government revenue	Percent of GDP		22.61	24.76	25.09	26.64	25.02	24.71	24.59	24.47	24.61	23.46

Source: IMF, 2017

## Annex A10: Consolidated financial statements - MTOA and Philip Morris Senegal

DESCRIPTIONS	2012	2013	2014	2015
Products	60,950,611,416	78,161,642,656	77,087,288,052	85,088,197,094
Turnover	63,064,419,719	80,171,519,872	77,850,080,449	86,117,828,856
Children	32,068,430,153	46,032,907,378	42,287,128,804	52,458,545,093
Raw material inventory change	1,866,733,273	3,696,642,345	577,750,674	5,125,178,571
Purchases of merchandise	56,104,118	129,675,880	173,351,894	200,665,454
Merchandise inventory change	86,818,892	47,113,576	6,858,808	403,001
Other purchased-goods inventory change	127,036,122	46,731,399	81,358,017	2,437,821,979
Imports	-	-	-	-
Exports	28,687,425,056	40,322,743,540	27,233,426,409	27,816,965,966
Total operational cost	65,873,034,331	75,860,044,815	77,676,116,143	42,939,861,380
Personnel cost	5,500,598,486	5,935,006,420	7,051,002,811	6,763,782,775
Telecommunication expenses	-	115,553,302	108,353,914	50,845,969
Fees	-	2,765,086,271	2,609,830,271	2,996,479,718
Sub-contracting	-	140,960,436	-	-
Gross margin on materials	28,978,147,713	35,804,184,813	34,758,733,914	38,451,528,797
Value added	5,791,377,578	15,288,516,173	10,526,479,142	13,628,110,824
Gross operating surplus	290,779,092	9,353,509,753	3,475,476,331	6,864,328,049
Total current assets	35,835,239,250	41,861,838,925	37,824,543,933	25,637,487,209
Total current liabilities	21,605,560,965	23,946,520,135	24,178,096,242	15,176,277,053
Inventory of manufactured products	445,943,166	1,053,821,042	931,329,433	180,569,261

Source: MTOA et PM, 2017

## Annex A11: Summary of imports according to origin of tobacco products (source DGD)

YEARS	ZONE	CIF VALUE (CFA FRANCS)	NET WEIGHT (KG)	TAXES (PAID) (CFA FRANCS)
2013	WAEMU	246 064	1	327 095
	ECOWAS	1 733 795	257	3 677 887
	OTHER	89 564 111	9 472	155 981 248
	SUB-TOTAL 1	91 543 970	9 730	159 986 230
2014	WAEMU	0	0	0
	ECOWAS	0	0	0
	OTHER	106 288 674	15 114	226 147 253
	SUB-TOTAL 2	106 288 674	15 114	226 147 253
2015	WAEMU	0	0	0
	ECOWAS	0	0	0
	OTHER	75 327 110	5 839	133 144 655
	SUB-TOTAL 3	75 327 110	5 839	133 144 655
2016	WAEMU	171 060 403	18 453	122 308 189
	ECOWAS	171 060 403	18 453	122 308 189
	OTHER	195 525 291	20 863	383 240 994
	SUB-TOTAL 4	537 646 097	57 769	627 857 372
TOTAL	810 805 851	88 452	1 147 135 510	

### Annex A12: Summary of exports according to the origin of tobacco products (source DGD)

YEARS	ZONE	CIF VALUE (CFA FRANCS)	NET WEIGHT (KG)
2013	WAEMU	7 002 438 551	480 259
	ECOWAS	13 991 793 657	1 198 096
	OTHER	11 219 390 263	931 285
	Sub-total 1	32 213 622 471	2 609 640
2014	WAEMU	6 055 623 680	391 739
	ECOWAS	13 335 592 289	1 320 438
	OTHER	9 289 868 318	668 868
	Sub-total 2	28 681 084 287	2 381 045
2015	WAEMU	9 498 860 579	632 450
	ECOWAS	19 007 190 764	1 679 390
	OTHER	9 957 818 015	767 939
	Sub-total 3	38 463 869 358	3 079 779
2016	WAEMU	18 079 399 275	1 151 056
	ECOWAS	27 866 652 749	2 156 069
	OTHER	8 051 656 110	553 585
	Sub-total 4	53 997 708 134	3 860 710
<b>TOTAL</b>		<b>153 356 284 250</b>	<b>11 931 174</b>

### Annex A13: Summary Cigarette Tax - Scenarios Output – 2017 -2018

SUMMARIZED OUTPUT	Actual 2016	Baseline: Current 45% ad valorem excise forecast 2017	Current 45% ad valorem excise forecast 2018	Alternative Policy Scenario B018: 60% ad valorem and a uniform specific of US\$0.02/ 12 FCFA per stick	Alternative Policy Scenario B018: 80% ad valorem and a uniform specific Of US\$ 0.03/ 18 FCFA per stick
CIGARETTES	Actual 2016	Baseline 2017	2018 Forecast	Scenario 1 2018	Scenario 3A 2019
Summarized output	Actual 2016	Baseline 2017	2018 Forecast	Scenario 1 2018	Scenario 3A 2019
Total cigarettes taxed (billion pieces)	2.28	2.30	2.33	1.91	1.48
Average cigarette price (FCFA per pack)	566.91	581.46	603.62	937.29	1,695.38
Average cigarette price (US\$ per pack)*	\$0.96	\$0.98	\$1.02	\$1.58	\$2.86
Average excise tax (excise tax as percentage of retail price)	22.0	21.5	21.0	43.6	34.5
Average excise tax (FCFA per 1000 pieces)	6,246.2	6,246.2	6,326.0	20,434.7	29,246.3
Average cigarette tax burden (total tax - excise, VAT, duties, and levies as %age of retail price)	36.6	35.7	34.8	58.0	61.0
Total excise tax revenue (billion FCFA)	14.24	14.38	14.73	38.99	43.35
Total government tobacco tax revenue (excise, VAT, and levies, billion FCFA)	23.66	23.90	24.46	51.91	55.76
Total expenditure on cigarettes (billion FCFA)	64.	66.95	70.27	89.42	125.64
<b>Percentage change in (year to year):</b> Total cigarette consumption (%)	<b>5.5</b>	<b>1.1</b>	<b>1.1</b>	<b>-17.1</b>	<b>-35.6</b>

Source: WBG Final Report on Modelling Tobacco Excise Tax Impact in Senegal, September, 2017

### Annex A14: Tobacco Excise Tax Scenarios – Preliminary GDP Impact Assessment

GOVERNMENT REVENUE TYPE	Baseline: Current 45% ad valorem excise forecast-2017	Expected Contributions to GDP	Current 45% ad valorem excise forecast-2018	Expected Contributions to GDP	Alternative Policy Scenario B018: 60% ad valorem and a uniform specific of US\$0.02/ 12 FCFA per stick	Expected Contributions to GDP	Alternative Policy Scenario B018: 80% ad valorem and a uniform specific Of US\$ 0.03/ 18 FCFA per stick	Expected Contributions to GDP
Total cigarettes taxed (billion pieces)	2.30		2.33		1.91		1.48	
Average cigarette price (FCFA per pack)	581.46		603.62		937.29		1,695.38	
Average cigarette price (US\$ per pack)*	\$0.98		\$1.02		\$1.58		\$2.86	
Average excise tax (FCFA per 1000 pieces)	6246.2		6,326.0		20,434.7		29,246.3	
Average excise tax (US\$ per 1000 pieces)	\$10.53		\$10.67		\$34.46		\$49.32	
Total excise tax revenue (billion FCFA)	14.38		14.73		38.99		43.35	
Total excise tax revenue (US\$ million)	\$24.26	0.15%	\$24.84	0.15%	\$65.75	0.39%	\$73.10	0.43%
Additional tobacco excise (million FCFA) /percentage of GDP	143.4		343.8		24607.0		28963.0	
Additional tobacco excise (US\$ million) *	\$0.24	0.002%	\$0.58	0.003%	\$41.50	0.24%	\$48.84	0.29%
Total government tobacco tax revenue (excise, VAT and levies, billion FCFA)	23.90		24.46		51.91		55.76	
Total government revenue (excise, VAT and levies, US\$ million)	\$40.30	0.26%	\$41.26	0.24%	\$87.53	0.52%	\$94.03	0.55%
Percentage change in total cigarette consumption (%)	1.1		1.1		-17.1		-35.6	

Source: WBG

