

Uruguay

Overview of

TOBACCO USE, TOBACCO CONTROL LEGISLATION, AND TAXATION

World Bank Group
Global Tobacco Control Program
Country Brief

Table of contents

Executive summary	3
Acknowledgments.....	5
Introduction	6
Tobacco control legislation	6
Smoke-free places	6
Tobacco advertising, promotion, and sponsorship.....	7
Smoking cessation.....	7
Tobacco packaging and labeling.....	7
Tobacco use.....	8
Tobacco use among adults.....	8
Smoking among women of childbearing age	11
Cigarette consumption.....	11
Tobacco use among youth	11
Tobacco use among health professionals	13
Tobacco growing	13
Tobacco production and sales.....	13
Tobacco taxation	15
Tobacco excise revenue	16
Cigarette and tobacco prices.....	16
Tobacco affordability.....	18
Cigarette smuggling.....	20
Discussion.....	23
Conclusions	24
Recommendations	25
References.....	25

Uruguay

Overview of Tobacco Use, Tobacco Control Legislation, and Taxation A Country Brief

Executive summary

In 2005, shortly after ratifying the Framework Convention on Tobacco Control (FCTC), Uruguay began an ambitious tobacco control campaign that brought the country to the global forefront in the fight against smoking. The comprehensive tobacco control policies reduced smoking prevalence in the country, especially among young people.

Tobacco taxation was one of the key elements of tobacco control. However, the impact of tobacco tax increase in 2005-2008 was modified by the fast economic recovery after the crisis. Cigarette price increases were not high enough to offset the income growth, and cigarette affordability increased. Volumes of cigarette and roll-your-own (RYO) tobacco sales did not change much, and real tobacco revenue did not increase.

Tax rates were sharply increased in July 2009 and in February 2010, and the increase in prices was high enough to make cigarettes less affordable despite the income growth. Tobacco sales decreased as well as tobacco consumption, while tobacco revenue increased both in nominal and real terms.

In 2011-2014, the tobacco tax rates were not changed. Affordability began to increase again, as real cigarette prices fell, and the income continued to rise. This was followed by an increase in cigarette sales, while tobacco excise revenue decreased in real terms. Despite the growth of legal cigarette sales, estimated volumes of cigarette smuggling also increased.

In 2015-2019, excise rates for cigarettes and roll-your-own tobacco were increased every year. While the tax increase by itself was not very high (in 2015-2017, on average 15% annually) its impact was reinforced by the tobacco industry pricing policy: the industry increased its part of the price in line with the excise rate increase, so the tax share in the final price almost did not change. The growth of cigarette price was fast enough to make cigarettes less affordable, and cigarette sales decreased, while the estimated number of smuggled cigarettes almost did not change. Real tobacco excise revenue increased in 2015-2017 but not in 2018, as the excises increased by 12% while the inflation rate was 8%, and sales continued to decline. In 2019, the excise rate was increased by 7.8%.

There were two periods when the tobacco taxation policy in Uruguay was really a “win-win” policy: tobacco consumption declined, and tobacco tax revenue increased. This was observed in 2009-2010 and in 2015-2017. The main feature of both periods was the presence of rather sharp increases in the excise tax rates. Another feature was the pricing policy of the tobacco industry, which increased its part of the price above inflation to keep its profits on a declining market. The impact of taxes on sales was also modified by the changes in population incomes, demonstrating the importance of ensuring that tax increases should be high enough to reduce the affordability of tobacco products.

The specific feature of the tobacco market in Uruguay is the high prevalence of RYO tobacco consumption. The tax and price of roll-your-own tobacco remain substantially lower than that of cigarettes. While the prevalence of roll-your-own tobacco use was declining over recent years, this kind of tobacco products is mainly used by the poorest smokers.

The following recommendations could strengthen tobacco control policy in Uruguay and ensure both the reduction in tobacco consumption and an increase in government tobacco excise revenue:

- Current tobacco taxation policy of the annual tax increases should be continued, while the rate of the annual increase could be increased to at least 20%.
- Tax rates for roll-your-own tobacco should be increased faster than those for the manufactured cigarettes: for example, if the annual cigarette tax increase is 20%, the RYO tax rate could be increased by 40%. Such a tax increase could encourage poorer but more price-sensitive RYO smokers to quit, and it would be very beneficial for their health and wellbeing.
- Tobacco use surveillance and monitoring should be further developed in Uruguay, including regular surveys with a collection of comprehensive information on consumed tobacco products.
- Uruguay authorities already implemented some effective policies to counteract tobacco smuggling. Such efforts should be strengthened in line with the provisions of the FCTC Protocol to Eliminate Illicit Trade in Tobacco Products. While cigarette smuggling is a problem, it should not be overestimated and used as an argument against further excise increases.

Acknowledgments

This country brief was prepared by a team from the World Bank Group Global Tobacco Control Program led by Patricio V. Marquez, including Konstantin Krasovsky, and Tatiana Andreeva.

June 20, 2019

Introduction

The Objective of the Country Brief

This country brief presents an overview of current tobacco control legislation, tobacco use, and taxation policy in Uruguay. Data and information were collected from various sources. The brief is intended to serve as the context for complementary assessments on different aspects of tobacco taxation in the country to be shared with government teams and other national and international stakeholders.

Tobacco control legislation

Uruguay ratified the WHO Framework Convention on Tobacco Control on September 9, 2004. In 2014, Uruguay ratified the WHO FCTC Protocol to Eliminate Illicit Trade in Tobacco Products and created an interagency committee for protocol implementation.

In 2005, shortly after ratifying the Framework Convention on Tobacco Control (FCTC), Uruguay began an ambitious tobacco control campaign that brought the country to the global forefront in the fight against smoking. The wide range of measures implemented in a relatively short period and the rigorousness with which policies were implemented and enforced have few precedents, even in the most developed countries [1].

In 2015 [2], tobacco control policies in Uruguay were assessed at 34 out of 37 points.

Smoke-free places

In March 2006, Uruguay became the first country in Latin America to adopt a 100% smoke-free national policy, which started as a Presidential Decree issued in 2005 and was codified later when Congress passed a national law in 2008. In addition to indoor enclosed places, the smoke-free legislation includes selected outdoor areas. Smoke-free legislation gets a very high level of compliance and great social acceptance [3].

As the ITC survey (conducted among smokers) shows, only 5% of them reported noticing smoking indoors in these venues in the last 6 months between 2008-09 and 2012. During this time, support for the ban has increased from 79% to 90% of smokers. The prevalence of smoking indoors in bars was slightly higher: about 10% of smokers noticed people smoking in these venues in the last 6 months between 2008-09 and 2012, while the support for the indoor ban also increased during this time from 70% to 82% of smokers [4].

Comparison of data from countries which conducted the Global Adult Tobacco Survey (GATS) in 2008-2010 showed that all the indicators of SHS exposure were the lowest in Uruguay including SHS exposure in the workplace (16.5%) [5], in government buildings (6.9%), in restaurants (4.4%), on public transportation (5.4%), in healthcare facilities (3.8%) [6]. In a recent study of in-vehicle smoking, it was observed in 2.2% of vehicles [7].

According to GATS, exposure to secondhand smoke (SHS) in homes, workplaces, and in various public places significantly declined from 2009 to 2017. In homes (at least weekly) exposure to SHS declined from 29.2% to 20.0%, representing a relative decline of 31.5%. In workplaces (in the last 30 days), exposure to SHS declined from 16.5% to 11.1%, representing a relative decline of 32.8%. The largest drop in exposure to SHS in various public places occurred in universities (in the last 30 days) from 27.5% to 11.3% representing a relative decline of 58.8%.

Tobacco advertising, promotion, and sponsorship

In 2008, Uruguay introduced a total ban on tobacco promotion and sponsorship and outlawed most tobacco advertising except at the point-of-sale, with a requirement that health warnings of equivalent size and visibility appear alongside in-store tobacco displays. However, the partial advertising ban proved difficult to enforce, as the tobacco industry employed various advertising, promotion and sponsorship tactics that violated the law, such as the use of brand elements without the corresponding required health warnings. In the face of strong opposition from the tobacco industry and merchant associations, which claimed that a ban on point-of-sale displays would violate the country's constitution and lead to an increase in illicit trade, Uruguay mobilized a coalition of governmental and civil society partners to make its advertising ban complete to ensure compliance with the WHO Framework Convention on Tobacco Control requirements. Only a list of tobacco products that are sold, with their prices, is permitted and it must have a Ministry of Health warning on the harms associated with tobacco use and SHS exposure. The successful expansion of Uruguay's TAPS ban shows that even strong tobacco control measures can be made even stronger [8].

Smoking cessation

Since 2004, treatment for tobacco dependence has been offered by the National Resources Fund (FNR) and was available free of charge in about two-thirds of the provinces in Uruguay. In 2005, more than 100 new tobacco dependence treatment programs operated by personnel trained by the FNR were established. Under the 2008 Smoking Control Regulations (Law No. 18.256), tobacco dependence treatment was integrated into the National Healthcare System. In March 2013, a national toll-free telephone quitline service was initiated by the Ministry of Health. The number is currently promoted on cigarette packaging [4].

Tobacco packaging and labeling

One of the authorized pictures and accompanying text warnings must be displayed on 80 percent of the two principal display areas of each tobacco product package. Warnings must be distributed evenly across each brand and new warnings are to be issued every 12 months. Six new graphic images appeared on packs in February 2010, covering the lower 80% of both principal display areas of all tobacco packages. Since then, the Ministry of Public Health of Uruguay has implemented seven rounds of new health warnings [4].

Misleading packaging and labeling, including terms such as "light" and "low tar" and other signs, is prohibited. Further, each tobacco brand may only bear a single form of presentation. For example, Marlboro Red was selected as the only brand variant for Marlboro, and other variants such as Marlboro Gold or Marlboro Blue could no longer be sold. The intent of this policy was to eliminate the false impression that one brand variant is more or less harmful than another. The tobacco industry responded to this law by creating new brands to replace their "lighter" cigarette variants [4].

An executive decree was issued in August, 2018, to advance the implementation of plain packaging of tobacco products. As of December 22, 2019, the color of all cigarette packages will change to brown, according to the regulations of the plain packaging law that was enacted on December 21, 2018¹. The Executive Power published the regulatory decree, in which it establishes that the color of all packages of tobacco products will be uniform. It also establishes that the Ministry of Public Health may change it in

¹ <https://legislativo.parlamento.gub.uy/temporales/docu360506756774.htm>

two years. The regulatory decree establishes that trademarks and other distinctive signs must be printed by the same type and size of letters.²

The tobacco industry's global efforts to challenge the use of warning labels were dealt a significant blow in July 2016, when the arbitral tribunal dismissed a case brought by Philip Morris (PM) against Uruguay.

PM had challenged Uruguay's strong packaging and labeling laws by bringing an international case against its government in early 2010 – the first claim under an investment treaty challenging WHO FCTC implementation. At the World Bank International Centre for Settlement of Investment Disputes, the company claimed that Uruguay had violated its bilateral investment treaty with Switzerland.

However, Uruguay was able to actively confront the tobacco industry and defend its national laws. WHO and the WHO FCTC Secretariat, as well as the Pan-American Health Organization, supported WHO FCTC implementation by filing independent amicus briefs that described the WHO FCTC and the underlying evidence base for the measures. Financial assistance was also provided to Uruguay by national and international NGOs and by Bloomberg Philanthropies.

On July 8, 2016, the International Center for Settlement of Investment Disputes (ICSID), an independent arm of the World Bank Group, dismissed the lawsuit in its entirety and ruled that Uruguay should be awarded compensation for all the expenses and costs associated with defending against these claims. In essence, the ruling accepted the claim made by the Government of Uruguay that its anti-tobacco measures were “about the protection of public health, not interference with foreign investment.” [9]. The tobacco company lost its 6-year landmark battle for compensation concerning Uruguay's strong tobacco packaging and labeling measures and had to reimburse Uruguay USD 7 million to cover its legal fees.

This decision represented a major victory for the people of Uruguay and shows countries everywhere that they can stand up to tobacco companies and win. Uruguay's experience is an important example for other countries that are considering implementing similar legislation and will strengthen the resolve of governments to not be intimidated by tobacco industry threats of litigation [10, 11]

Tobacco use

Tobacco use among adults

According to a 1988 survey conducted among 799 urban dwellers by the American Cancer Society in collaboration with Gallup organization [12], 44% of men and 23% of women were current smokers in Uruguay. In 1990, the prevalence of smoking in Uruguay was 40.9% among men and 26.6% among women [13].

Several surveys have been conducted in Uruguay systematically or at least more than once.

STEPS was conducted in 2006 [14] and 2013 [15]. The first survey was conducted among people aged 25-64 years; the second one also included those from 15 years. The prevalence of daily smoking is shown in Table 1. The overall change in the prevalence of daily smoking between the two STEPS constituted 3-6% depending on the demographic groups being larger in younger groups and smaller in older ones. However, none of the groups was characterized by a significant decrease in the prevalence.

² <https://www.elpais.com.uy/informacion/salud/partir-diciembre-cajas-cigarrillos-pasaran-marrones.html>

Table 1. Prevalence of daily smoking in Uruguay according to STEPS

Gender	Age	2006	2013
Men	15-24		16,6% (10,3-22,8)
	25-64	37,2% (33,4-41,0)	32,5% (29,0-36,0)
Women	15-24		16,9% (11,6-22,2)
	25-64	28,6% (26,0-31,2)	25,4% (22,8-28,0)
Both	15-24		16,7% (12,7-20,8)
	25-34	33,8% (29,2-38,4)	27,6% (23,0-32,2)
	35-44	35,2% (30,4-40,0)	30,7% (26,2-35,1)
	45-54	33,3% (29,1-37,5)	30,3% (25,9-34,7)
	55-64	27,2% (23,0-31,4)	26,1% (22,1-30,1)

On average, in 2013 STEPS, daily smoking men smoked 13.3 and women 11.9 cigarettes per day.

The national survey (ENPTA) was conducted in 2008: the prevalence of last week smoking was 29.4% for men and 20.9% for women³.

Global Adult Tobacco Survey was conducted in Uruguay twice: in 2009 and in 2017. The results of the Global Adult Tobacco Survey conducted in Uruguay in 2009 show that among men, the prevalence of current smoking was 30.7% (28.2–33.4), daily cigarette smoking 24.3% (, mean cigarettes per day 17.6; among women, these estimates were 19.8% (18.1–21.6), 16.4% and 12.5 respectively [16]. Uruguay was characterized by the largest proportion of former tobacco users (24%) compared to other GATS countries. The male/female odds ratio was the lowest in Uruguay (2.08) which shows that women smoking is most widespread compared to other countries of this group [17, 18]. The comparison of the two surveys shows that the overall tobacco smoking prevalence significantly declined from 25.0% in 2009 to 21.6% in 2017, a relative decline of 13.4%. Tobacco smoking significantly declined among males from 30.7% in 2009 to 25.6% in 2017; among females, tobacco smoking was 19.8% in 2009 and 18.0% in 2017, and the difference was not statistically significant. By age group, there was a significant decline in tobacco smoking only among the group aged 15-24 years (24.7% to 14.6%), representing a relative change of 40.9%⁴.

According to the National Survey of Risk Factors for Non-communicable Diseases conducted among people aged 15 years and older in 2014 [10], 18.5% of adults smoked daily (22.8% of men and 14.8% of women).

In 1998-2011, the prevalence of smoking in Uruguay decreased from 34% to 23.5% [19].

It was also reported that smoking prevalence among the adult population dropped from 33.5% in 2005 to 22% in 2016 [20].

According to published international estimates [21], the age-standardized adult smoking prevalence in Uruguay decreased from 31% in 1980-1996 to 23.6% in 2012. In 2012, the prevalence was 27.2% among men and 20.4% among women.

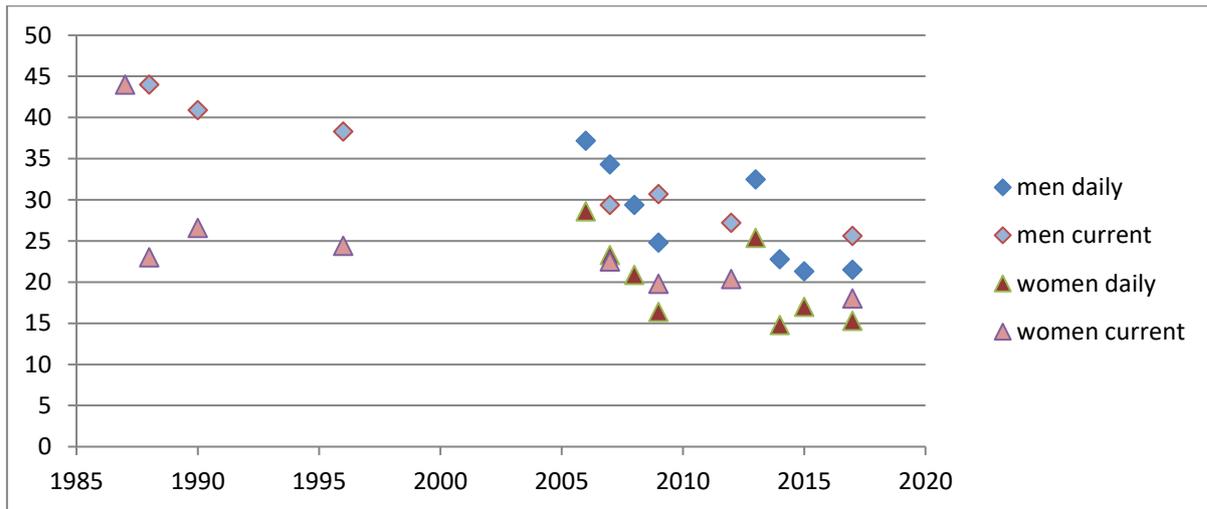
³ <http://cieturuguay.org.uy/wp-content/uploads/2012/08/Enpta-oct08.pdf>

⁴ <https://nccd.cdc.gov/GTSSDataSurveyResources/Ancillary/DownloadAttachment.aspx?ID=3400>

In 2015, the age-standardized prevalence of daily smoking in Uruguay was reported to be 21.3% (18.8-24.0) among men and 17.0% (14.8-19.3) among women. The annualized rate of change in 2005-2015 was -2.3 among men and -1.8 among women [22].

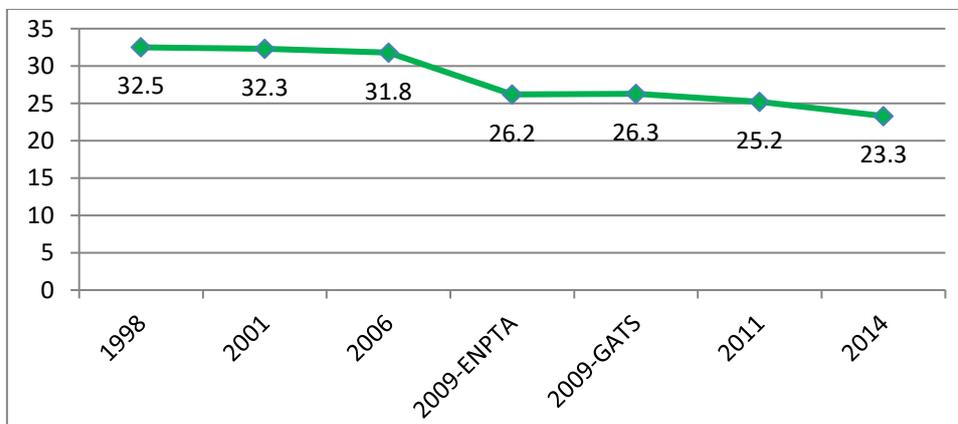
We summarized the results of various surveys conducted among adults in Uruguay for daily and current smoking among men and women separately (Figure 1). The graph shows that since 1985 the prevalence of current smoking among men declined from about 45% to about 25%; among women the overall decline was smaller - from about 26% to 18%.

Figure 1. The prevalence of daily and current smoking according to the surveys of adult population of Uruguay.



The results of numerous national surveys on current smoking prevalence were summarized by D.Curti (2015) [23]. In order to have comparable prevalence series, he conducted age-standardization of survey results. The databases of the Continuous Survey of Homes of the National Institute of Statistics (INE) for 2011 and 2014 were taken, and only the data of people aged between 12 and 64 were included in the prevalence calculation, which is a range of ages similar to that considered in the 1998, 2001 and 2006 (4th END – National Drug Survey) surveys. Then, using the adjustment done in INE’s Continuous Survey of Homes for 2011 and 2014, a similar adjustment was applied to the 2009 ENPTA (National survey on tobacco use prevalence⁵) and GATS surveys. The result is summarized in Figure 2.

Figure 2. The prevalence of current smoking among people aged 12-64 years in Uruguay



⁵ <http://cieturuguay.org.uy/wp-content/uploads/2012/08/Enpta-oct08.pdf>

The estimates from 2009 and beyond are statistically different from the estimates made between 1998 and 2006. Starting from the surveys conducted in 2009 and later, sustained declines are observed in the prevalence estimates [23].

Similarly, no trends in the prevalence of tobacco use in adults were detected for 2000-2005; however, from 2005 to 2011, the prevalence of current tobacco use in Uruguay decreased annually by an estimated 3.3% (2.4-4.1) [24].

Smoking among women of childbearing age

The nationwide survey of 5,169 women of childbearing age conducted in Uruguay in 1987 found that 44% were smokers [12].

A survey of pregnant women in 2005 [25, 26] found that 53.0% of women in Uruguay had ever smoked regularly, and this was the highest prevalence among all countries participating in the study; of these, 33.8% kept smoking during pregnancy which constitutes 18% of all surveyed pregnant women. Uruguay was also among the countries with the highest (54.4%) proportion of women who reported that smoking was allowed in their homes.

Analysis of smoking of women of childbearing age based on GATS data [27] showed that the prevalence of smoking (24.7%) was higher among urban women (25.0%) than rural ones (20.7%) and women aged 25-34 years (29.3%) compared to younger and older ones. The positive finding was that the more educated women were, the lower the prevalence of smoking was.

Cigarette consumption

Estimated cigarette consumption in Uruguay were as follows: 1970: 3.1bl; 1995: 2.9bl; 2000: 3.6bl [28].

In 2003, total (licit + illicit cigarettes and RYO) tobacco consumption was estimated to be 4,163,702,000 cigarettes equivalents [29]. In 2008, based on ENPTA Survey results which considered the population aged 15 years and older (2.6 million), among whom the prevalence of smoking was 24.8% and the average daily consumption constituted 15.5 cigarettes, cigarette consumption (manufactured and RYO) was estimated to be 3.6 billion units per year [30].

Estimated per capita annual cigarette consumption among adults (>15 years of age) from 1970-72 to 1990-92 increased from 1630 to 1700 [13]. Per capita, cigarette consumption in Uruguay in 1985 was estimated to be 1760 [12]. However, after 1990, the per capita consumption reduced to 1200 and then increased again to 1450 by 2000 [28].

In 2001–09, per person consumption in Uruguay decreased from 1404 to 994 cigarettes per population aged 15 years or older. During 2005-11, per-person consumption of cigarettes (including RYO) in Uruguay decreased by 4.3% per year [24].

Tobacco use among youth

According to the survey conducted among 10,496 high school students in Montevideo in 1975, among adolescents aged 12-16 years, 33% of boys and 32% of girls were current smokers, among those aged 17-18 years, 50% of boys and 45% of girls were current smokers [12]. In 2001 in Montevideo, the smoking rates among youths aged 13-15 year were high: 26.5% were estimated to be smoking at least one cigarette in the past 30 days [31].

The Global Youth Tobacco Survey (GYTS) was conducted in Uruguay at the national level in 2000 and 2007 [32], and then in 2014 [10].

Table 2. The prevalence of current tobacco use (at least once during the last 30 days) among adolescents aged 13-15 years in Uruguay, %, GYTS

	2000	2007 ⁶	2014
Currently used any tobacco product		23,2	12.8
<i>boys</i>		21.4	12.7
<i>girls</i>		24.5	12.5
Currently smoked cigarettes	25.6	20.2	8.2
<i>boys</i>	21.2	16.4	7.2
<i>girls</i>	28.6	22.9	8.7
Currently smoked other tobacco product		7.9	2,7
<i>boys</i>		10,3	3,4
<i>girls</i>		6.1	2,1

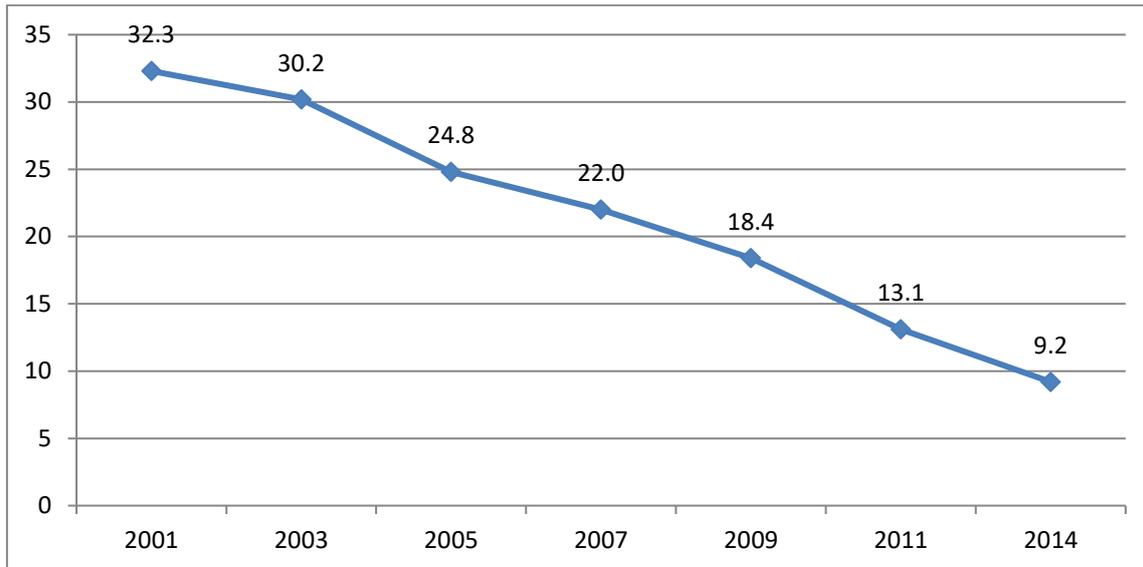
In all three GYTS surveys, cigarette smoking rates were much higher among girls, while rates of the other tobacco use (probably, RYO tobacco) was higher among boys. In the 2007-2014, the prevalence of any tobacco use decreased by 45%, cigarette smoking – by 59%, other tobacco smoking – by 66%. The reduction of the prevalence was occurring faster among girls than among boys.

The Global School-based Health Survey (GSHS) was conducted in Uruguay in 2006 [33]. Similarly to the GYTS 2007 results, the prevalence of current smoking (defined as smoking cigarettes on one or more days in the past 30 days) was higher among girls (21.4% ± 2.7) than among boys (13.3% ± 2.7). The prevalence of smoking in Montevideo was slightly higher (17.8% ± 2.9 on average) than in the rest of the country (17.6% ± 2.8), however, the difference was not significant.

On the basis of log-linear regression analysis, Abascal et al (2012) [24] estimated that the prevalence of tobacco use among adolescents (13-17 years old) in Uruguay decreased in 2005-2009 by 8.0% annually: the 30-day tobacco-use prevalence in surveyed students decreased in Uruguay from 24.8% (23.5–26.1) in 2005 to 18.4% (16.8–19.9) in 2009. Female Uruguayan students had a persistently higher prevalence of tobacco use than their male classmates (female-to-male prevalence ratio=1.32). However, the annual proportional decrease in tobacco use prevalence in female Uruguayan students was indistinguishable from that in male students (p=0.704).

In 2001, a series of surveys on drugs, specifically among young people between the ages of 13 and 17, was initiated. The survey has been conducted approximately every two years by the National Drug Board (JND) of the Office of the President of the Republic. A sustained decrease was observed in the prevalence of 30-day consumption of tobacco in young people aged 13-17: from 32.3% in 2001 to 9.2% in 2014 [23] (Figure 3).

⁶ <https://nccd.cdc.gov/GTSSDataSurveyResources/Ancillary/DownloadAttachment.aspx?Id=518>

Figure 3. The prevalence of 30-day consumption of tobacco among young people aged 13-17 years, %

Tobacco use among health professionals

The study of fourth-year medical students aged 22-26 years in Montevideo in 1989 revealed that 24% of them were smokers [12]. Global Health Professions Students survey conducted in 2008 revealed that among male medical students, 31.3%(29.5 - 33.2) were current cigarette smokers and among female students, 32.4%(31.2 - 33.7) [34]. Among dental students, the measured prevalence of current tobacco use was even higher: among male students - 32.0%, among female student - 41.4% [35]. Among nursing students, the prevalence of current cigarette smoking was among males 23.9% and among females 44.7%; additionally, 8% of females used other tobacco products [36].

Tobacco growing

In 1983, 0.1% of arable land in Uruguay was harvested for tobacco [12]. According to the FAO database [37], raw tobacco production in Uruguay was in the range 2800-3200 tons a year in 2000-2016, and the area harvested for tobacco was about 750-900 hectares in 1990-2016 without large changes.

Tobacco production and sales

Uruguay is mainly a producer of manufactured cigarettes, although a small amount of raw tobacco is used for manufacturing artisanal cigars and added to the imported tobacco for manufacturing roll-your-own (RYO) and pipe tobacco.

There is now only one cigarette manufacturing company in the country, Cía Industrial de Tabacos Monte Paz (Monte Paz) which produces cigarettes and smoking tobacco. Its market share increased from 70% in the mid-2000s to 90% in 2017. Montepaz exports both cigarettes and cut tobacco to Paraguay, where it also owns a factory⁷. It is likely that a substantial proportion of these exports are then resold to “operators” in Paraguay, who then illegally move them to Brazil and other countries.

Philip Morris entered the Uruguayan market in 1979 by buying a local company (Abal Hnos. SA). However, in October 2011, Philip Morris closed the factory in Uruguay and concentrated production in Argentina. Its market share of the domestic market for cigarettes decreased from 25% to 9% in 2017.

⁷ http://www.sesric.org/tfo/files/factsheets/1.INB3_fact_sheet_illicit_trade_MERCOSUR_report.pdf

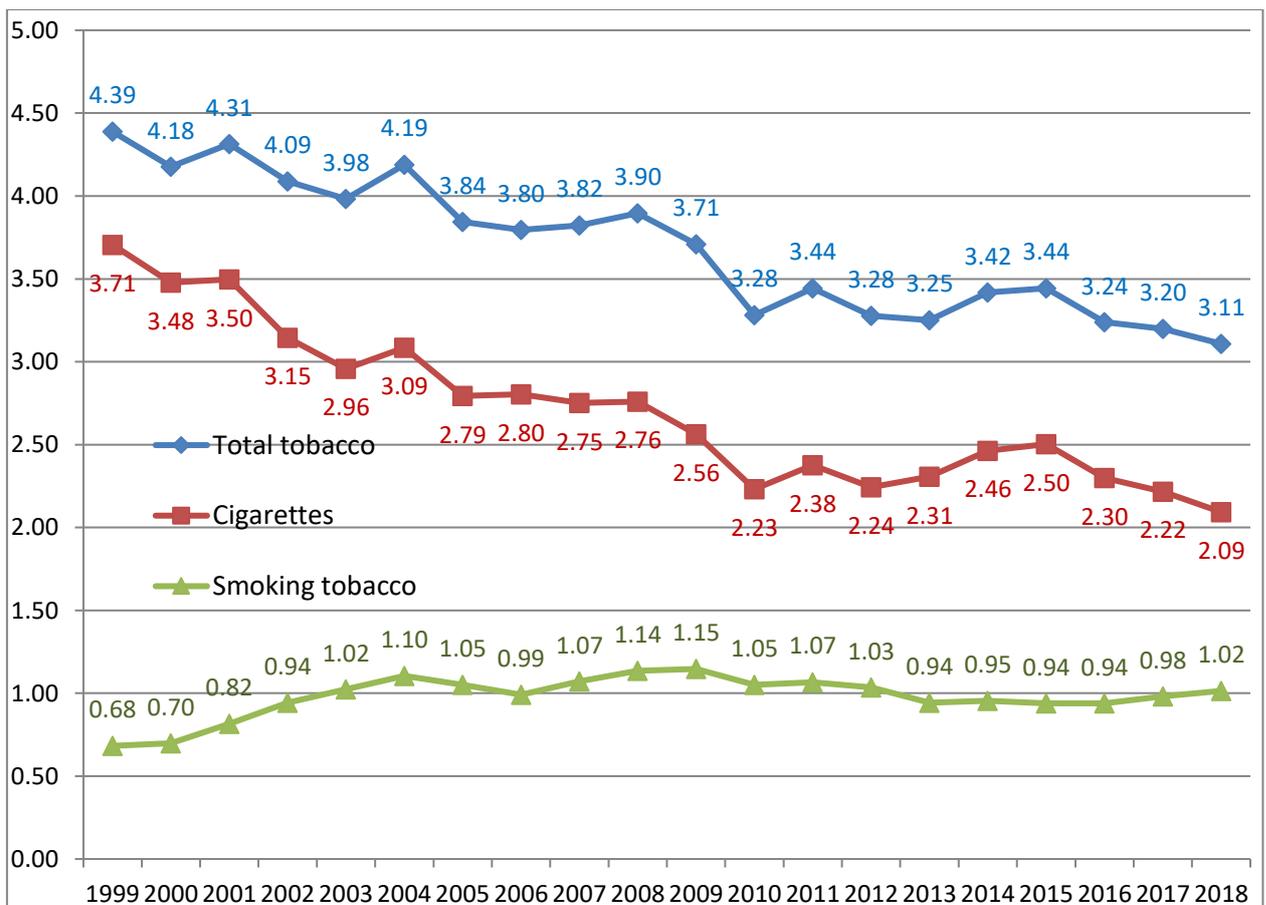
British American Tobacco (BAT) began manufacturing cigarettes in Uruguay in 1997 but ceased it in 2003. Its market share decreased from 4% in the 2000s to 0.7% in 2017. BAT cigarette brands are being imported from Argentina.

The peculiarity of the smoking tobacco market in Uruguay is the high prevalence of the roll-your-own (RYO) tobacco use. According to the Global Adult Tobacco Survey conducted in 2009, about 32.8% of the current cigarette smokers in Uruguay smoked RYO cigarettes [18]; in 2017 - 27.6% [38]. According to ITC surveys, the percentage of smokers reporting smoking only hand-rolled tobacco remained steady in 2006-2012 (9-13%), while the percentage of those who smoked both manufactured and RYO cigarettes gradually decreased from 21% in 2006 to 14% in 2012 [4].

The General Directorate of Taxation (DGI) reports annual volumes of cigarettes (in packs of 20 cigarettes) and smoking tobacco (in packs of 45 grams) sales from 1999⁸ (Figure 4). To calculate tobacco sales as cigarettes and fine-cut tobacco combined, the estimated average weight of one cigarette used in this analysis was 0.75 g [39].

Cigarette sales substantially (by 25%) decreased in 1999-2005, they were rather stable in 2005-2008; however, in 2009-2010, the sales further decreased by 19% in two years. In 2011-2015, they gradually increased by 12%, but in 2015-2017, cigarette sales decreased again to the level of 2010 and continued to decrease further in 2018 (Figure 4).

Figure 4. Sales of cigarettes and roll-your-own tobacco (in cigarette equivalents), billion cigarettes



Source: General Directorate of Taxation (DGI).

⁸ <https://www.dgi.gub.uy/wdgi/afiledownload?2,4,849,O,S,0,22537%3B5%3B20%3B108>,

The annual sale of RYO tobacco substantially (by 62%) increased in 1999-2004, then it decreased in 2004-2006 and increased in 2006-2009, reaching a maximum of 21.5 million packs. In 2009-2016, smoking tobacco sales declined by 18%. In 1999-2007, the share of smoking tobacco in total tobacco consumption increased from 16% to 28%, but in 2007-2018 this share ranged between 28% and 33%.

Trends of total tobacco (cigarettes + RYO) sales were rather similar to the cigarette trends (Figure 4), with the exception of 2000-2004 when the reduction of cigarette sales was compensated by the increase of RYO sales. In 1999-2018, the total tobacco sales in Uruguay decreased by 29% or by 1.3 billion cigarette equivalents.

Tobacco taxation

In Uruguay, tobacco is taxed with a specific consumption tax (IMESI - Impuesto Específico Interno), which was first applied to cigarettes in 1993 and which in fact was an ad valorem excise tax with ex-factory price as a base. The ad valorem tax rates on cigarettes and roll-your-own tobacco were different. For example, in March 2005, the excise rate for cigarettes was increased from 68% to 70%, and for RYO tobacco from 27% to 29%. In July 2009, the ad valorem rates were unified at 70% but the tax base for RYO tobacco remained substantially lower than that of cigarettes, which also translated into a much lower consumer price.

From 2010, the 70% ad valorem rate is applicable for both cigarette and RYO tobacco, but it is applied to the fixed prices set by the government. This fixed price is lower than the final retail price; therefore, the effective tax rate is lower than the nominal tax rate. Taking into account the fixed prices, the excise can be considered to be specific with different rates for RYO tobacco and cigarettes (Table 3).

Table 3. Specific rates for cigarettes and smoking tobacco, in Uruguayan peso (UYU)

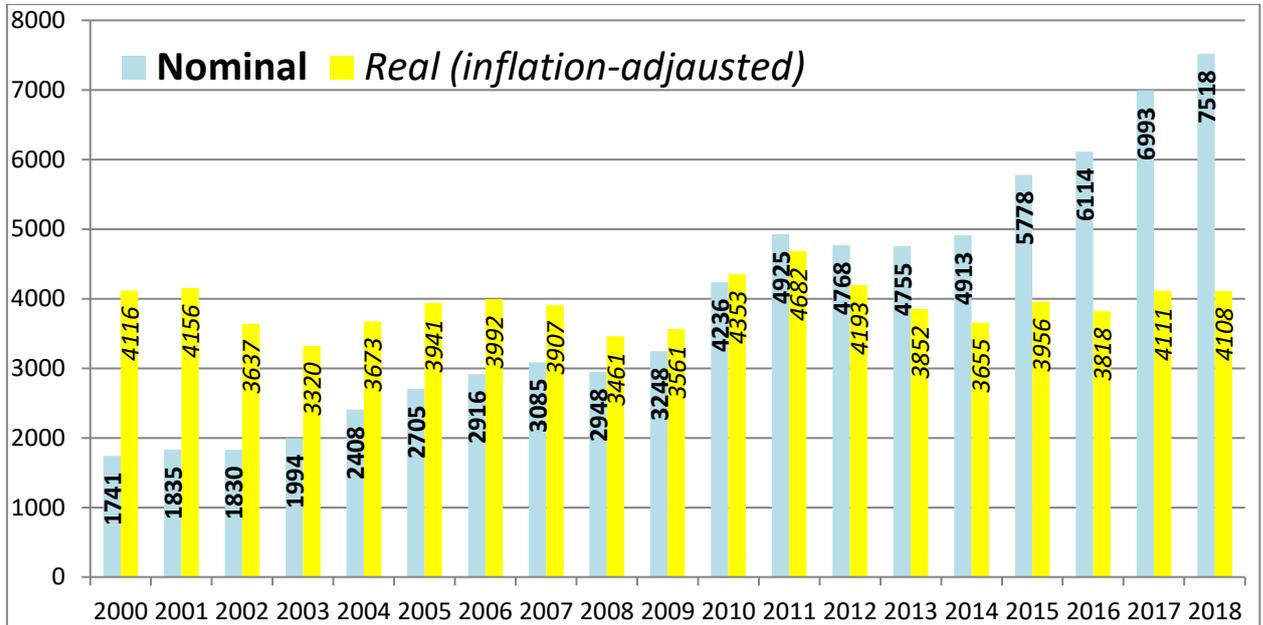
Tax applied from:	1 Januar y 2005	1 July 2005	1 Januar y 2007	July 2007	1 July 2009	1 March 2010	1 January 2015	1 July 2015	1 February 2016	1 Januar y 2017	1 Januar y 2018	8 Januar y 2019
Decree Number		204/ 005	619/ 006	232/ 007	268/ 009	69/ 010	375/ 014	164/ 015	11/ 016	418/ 016	379/ 017	2/ 019
Date of Decree	29.12. 2004	29.06. 2005	29.12. 2006	09.07 2007	03.06. 2009	22.02. 2010	19.12. 2014	15.06. 2015	21.01. 2016	26.12. 2016	29.12. 2017	8.01. 2019
Tax per pack of smoking tobacco (45 grams)						17	18,3	20,14	23,26	26,75	29,96	32,3
Tax per pack of 20 cigarettes	10,14	12,12	13,3	21,5	28	38	41,1	45,22	52,22	60,05	67,26	72,5

In 2005-2006, the increase of tax rate was rather moderate, but then, due to three consecutive tax hikes (July 2007, July 2009, and February 2010), the excise rate for cigarettes increased almost 3-fold in 32 months' time. Then, for 58 months, there were no increases in the excise rates. In December 2014, the tax rate was increased by 8.2% for cigarettes and by 7.6% for smoking tobacco, while the inflation rate in 2014 was 8.3%. However, then five consecutive increases in 2015-2019 (Table 3) increased the rates for both cigarettes and smoking tobacco by 76% in 42 months' time.

Tobacco excise revenue

The General Directorate of Taxation (DGI) reports the volumes of tobacco excise revenue in its annual⁹ and monthly¹⁰ bulletins. The reported annual revenues are presented in Figure 5.

Figure 5. Tobacco excise tax (IMESI) revenue, million UYU, nominal and inflation-adjusted (for inflation calculations we used CPI December 2010 = 100)



In 2000-2011, revenue in nominal terms increased by 183%, while in real terms, it increased by only 14%. The fastest growth of real revenue was observed in 2009-2011 when it increased by 35% in three years. Then, in 2011-2014, even nominal revenue slightly declined, while the real revenue decreased by 22% in three years. This negative trend was changed later, and in 2015-2018, nominal revenue increased by 53%, and real revenue increased by 12% in three years. However, in 2018, real revenue was almost the same as in 2017 and still lower than in 2010-2012.

Overall in 2000-2018, nominal tobacco excise revenue increased more than 4-fold, but real revenue did not increase at all.

Cigarette and tobacco prices

The National Institute of Statistics (INE) reports consumer price indices (CPI) for all items (inflation rates) and for tobacco products¹¹. It also reports average monthly cigarette prices from December 2010¹².

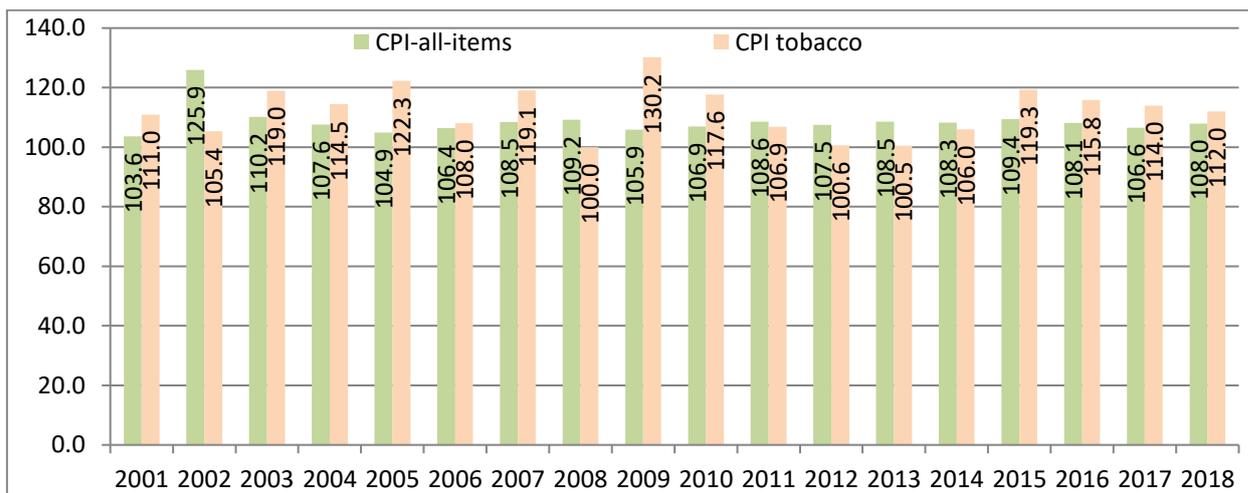
Changes in tobacco prices are presented in Figure 6.

⁹ <https://www.dgi.gub.uy/wdgi/page?2,principal,SerieDeDatos,O,es,0>,

¹⁰ <https://www.dgi.gub.uy/wdgi/page?2,principal,dgi-datos-y-series-estadisticas--informes-mensuales-de-la-recaudacion-2018,O,es,0>,

¹¹ <http://www.ine.gub.uy/web/guest/ipc-indice-de-precios-al-consumo>

¹² http://www.ine.gub.uy/c/document_library/get_file?uuid=f60b733b-13ae-4913-b44b-26d3249ba791&groupId=10181

Figure 6. Consumer price indices (December to December previous year) for all items and tobacco.

In 2001-2004, tobacco prices increased by 59%, while the inflation was 55%, so real (inflation-adjusted) prices almost did not increase in those four years. In the next four years (2005-2008), tobacco prices increased by 57% with an inflation rate of 32%, so 19% growth of the real prices took place. A much higher increase in real tobacco prices (35%) was observed in 2009-2010 when nominal tobacco prices increased by 53% with an inflation rate of 13% in two years. Then in 2011-2014, nominal tobacco prices increased only by 15%, while inflation was 37% over four years, so the real prices declined by 16%. In 2015-2018, real tobacco prices increased by 30%.

It looks like the tobacco tax rate increases (see Table 3) were the main factor of tobacco price increases in 2009-2010 and 2015-2018. However, the impact of the tax rate was modified by the tobacco industry pricing policy. We used official prices for cigarettes and RYO tobacco reported by the INE for 2010-2019. In 2008, the price of the most popular cigarettes in Uruguay was 45 peso per pack [10]. Then we took excise rates from Table 3, calculated the VAT (22% or 18.03% of the final retail price) in monetary terms and then calculated the Net-of-tax price as Price – (Excise + VAT) and the total tax share as (Excise + VAT)/Price. The results are presented in Table 4.

Table 4. Average prices and taxes for a pack of 20 cigarettes, UYU

	2008	2010	2014	2015	2016	2017	2018
Price	45	70	78	95	110	125	140
Excise	21,5	38	38	45,22	52,22	60,05	67,26
VAT	8,1	12,6	14,1	17,1	19,8	22,5	25,2
Net-of-tax	15,4	19,4	25,9	32,6	37,9	42,4	47,5
Net-of-tax price increase, %		25,9	33,8	25,9	16,2	11,8	12,0
Excise rate increase, %		76,7	0,0	19,0	15,5	15,0	12,0
Annual inflation rate ¹³ , %		14,2	38,1	8,7	9,6	6,2	7,6
Total tax share, %	65,8	72,3	66,8	65,6	65,5	66,1	66,1

In 2008-2010, the excise tax was increased by 77%, while the industry increased its part of the price (net-of-tax price) by 26% with inflation for two years 14%, so the prices increased to a greater extent than in case the industry only adjusted its price by the inflation. There were no excise increases in 2010-

¹³ http://www.ine.gub.uy/c/document_library/get_file?uuid=361cf1e4-7d00-416a-960b-d618a0b7d7e8&groupId=10181

2014, and the industry increased its price by 34%, a little less than the inflation (38%). In 2015-2018, the tax rate annually increased, and the industry increased its price usually in parallel with the tax increase and much higher than the inflation rate. In 2015-2018, the tax rate was increased by 77%, but the industry increased its price by 83% with an inflation rate of 27% in three years.

Total tax (IMESI + VAT) share in cigarette price increased from 65.8% in 2008 to 72.3% in 2010, as the tax increase was more sizable than the net-of-tax price increase. However, in 2015-2018, the tobacco industry increased its part of cigarette price in line with the excise increases, and the total tax share was about 66% over those years.

Price of a 45-gram-pack of RYO tobacco increased from 47 UYU in the first half of 2015 to 91 UYU in 2019, or by 94%, while excise tax increased by 76% in those years (Table 3). The industry increased the net-of-tax price of RYO tobacco above inflation and above excise growth; so, the excise share in RYO tobacco decreased from 39% in 2015 to 35% in 2019.

The WHO Global Tobacco Report, 2017 [10] contains information on cigarette prices and taxes in Uruguay and other American countries in 2016 (Table 5).

Table 5. Cigarette prices and taxes in Uruguay and some neighboring countries

Country	Price of a 20-cigarette pack of the most sold brand			Taxes as a % of the price of the most sold brand						Net-of-tax part of the price, US\$
	In reported currency	Reported currency	In US\$	Specific excise	Ad valorem excise	Total Excise	VAT/Sales tax	TOTAL TAX, %	TOTAL TAX, US \$	
Argentina	40,00	ARS	2,67	0,00%	76,10%	76,10%	4,15%	80,25%	2,14	0,53
Bolivia	11,00	BOB	1,59	0,00%	27,85%	27,85%	11,50%	39,36%	0,63	0,96
Brazil	6,24	BRL	1,91	22,44%	9,54%	31,98%	25,00%	67,95%	1,30	0,61
Chile	2 178	CLP	3,28	43,16%	30,00%	73,16%	15,97%	89,13%	2,92	0,36
Paraguay	2 000	PYG	0,36	0,00%	8,31%	8,31%	9,09%	17,40%	0,06	0,30
Uruguay	110,00	UYU	3,70	47,47%	0,00%	47,47%	18,03%	65,51%	2,42	1,28

We calculated the net-of-tax price of the most popular cigarette brand as follows: Price in USD * (1 – Total tax share). Cigarettes in Uruguay had the highest price in the Region, but it was partly caused by the highest net-of-tax cigarette price. For example, cigarette taxes in monetary terms are higher in Chile and just a little lower in Argentina than in Uruguay, but net-of-tax cigarette price in Uruguay is 142% higher than in Argentina, 108% higher than in Brazil and 258% higher than in Chile.

Tobacco affordability

The Guidelines for implementation of Article 6 of the WHO FCTC [40] recommend: “When establishing or increasing their national levels of taxation Parties should take into account – among other things – ... changes in household income, to make tobacco products less affordable over time in order to reduce consumption and prevalence”. In the Guidelines, “affordability” means price relative to per capita income.

Cigarette affordability in Uruguay has been decreasing since around 1998, and especially since the first tax increase in 2005, which has led to gradually declining cigarette sales. However, this trend stopped in 2011 when affordability began to increase again, as cigarette prices fell and income continued to rise.

This was followed by an increase in cigarette sales, demonstrating the importance of ensuring that tax increases are high enough to keep affordability of tobacco products low.

An Affordability Index was constructed using ITC Uruguay data to determine the change in cigarette affordability between Wave 1 (2006) and Wave 3 (2010-11) [41]. This analysis took into account ITC data on the price paid for the most recent cigarette purchase, type of brand purchased (legal vs. contraband), and national household income data from INE Uruguay (National Statistics Institute). The results show that affordability increased between Wave 1 (2006) and Wave 2 (Oct 2008 - Feb 2009) but then decreased between Wave 2 and Wave 3 (2010-11). Between Wave 1 and Wave 2, cigarettes became more affordable to consumers likely due to strong growth in mean real income while cigarette price increases were not high enough to offset income growth. However, cigarettes became less affordable between Wave 2 and Wave 3. This was likely due to substantial increases in taxes and prices on tobacco products in late 2009 and early 2010.

ITC Uruguay data also shows that average annual incomes increased more between Wave 3 (Oct 2010-Jan 2011) and Wave 4 (Oct-Dec 12) [4], as real cigarette prices fell, and income continued to rise. This was followed by an increase in cigarette sales, demonstrating the importance of ensuring that tax increases are high enough to keep the affordability of tobacco products low.

In the current analysis, a modified tobacco affordability index (TAI) [42] is used to estimate the changes in tobacco affordability in 2007–2017. TAI is calculated as the percentage annual change in nominal average income per capita divided by the tobacco price increase: $TAI = (\text{income increase}/\text{consumer price index tobacco} - 1) * 100$. A negative TAI value means that tobacco became less affordable, and tobacco consumption is expected to decrease. For the TAI calculations, we used the National Institute of Statistics data on urban household (only urban households data were available¹⁴) nominal average income per capita and the CPI for tobacco products. For control, we also used as income proxy the World Bank indicator “Annual percentage growth rate of GDP per capita based on constant local currency”¹⁵. As the GDP change is expressed in constant (adjusted for the effects of price inflation) local currency, the price indicator is also expressed in real (inflation-adjusted) terms. In this case, the TAI is calculated as $GDP \text{ annual change} / (\text{inflation-adjusted tobacco price increase} - 100)$: $(GDP \text{ growth} * CPI_all_items / CPI_tobacco - 100)$.

The results of the Tobacco Affordability Index estimation are presented in Table 6.

Table 6. Tobacco affordability in Uruguay in 2001-2017

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Average monthly income per capita of urban households per year (current pesos)	4 828	4 838	4 841	4 987	5 435	5 983	5 868	6 611	8 312	10 871	11 840	13 703	14 767	16 453	18 924	20 626	23 115	24 528
Income increase (previous year = 100)		100,2	100,1	103,0	109,0	110,1	98,1	112,7	125,7	130,8	108,9	115,7	107,8	111,4	115,0	109,0	112,1	106,1
CPI tobacco (December previous year = 100)		111,0	105,4	119,0	114,5	122,3	108,0	119,1	100,0	130,2	117,6	106,9	100,6	100,5	106,0	119,3	115,8	114,0
CPI all_items (December previous year = 100)		103,6	125,9	110,2	107,6	104,9	106,4	108,5	109,2	105,9	106,9	108,6	107,5	108,5	108,3	109,4	108,1	106,6
GDP per capita growth (annual %)	-2,3	-4,0	-7,8	0,9	5,05	7,4	3,9	6,3	6,8	3,9	7,4	4,8	3,2	4,3	2,9	0	1,3	2,3
TAI income		-9,7	-5,0	-13,4	-4,8	-10,0	-9,2	-5,4	25,7	0,5	-7,4	8,3	7,1	10,9	8,5	-8,6	-3,2	-6,9

¹⁴ http://www.ine.gub.uy/c/document_library/get_file?uuid=d47aa1bb-3d2f-4610-92a2-b0e224f1cee4&groupId=10181

¹⁵ <http://data.worldbank.org/indicator/NY.GDP.PCAP.KD.ZG>

TAI GDP		-10,4	10,2	-6,6	-1,3	-7,9	2,4	-3,2	16,6	-15,5	-2,4	6,5	10,2	12,6	5,1	-8,2	-5,5	-4,3
---------	--	-------	------	------	------	------	-----	------	------	-------	------	-----	------	------	-----	------	------	------

In 2001-2005, the tobacco affordability declined but mainly due to the economic recession in those years. In 2006-2008, tobacco became more affordable as income growth exceeded the increase in tobacco prices. In 2009-2010, despite the substantial increase in tobacco prices, the affordability reduction was rather moderate as incomes continued to grow. In 2011-2014, tobacco became much more affordable as tobacco tax rates were not increased while the economic situation was good enough. In 2015-2017, the tobacco price increase was rather high and the affordability declined.

Cigarette smuggling

Smuggling is usually estimated as a share of illicit cigarettes on the market. However, there is no smuggling of smoking tobacco in Uruguay [23, 30], which represents 30% of the consumption of tobacco products. So the estimated share will be different depending on what market we estimate: cigarettes only or total tobacco (cigarettes and smoking tobacco).

Ramos and Curti (2006) [29] estimated that in 2003 the annual volume of the total consumption of tobacco products was 4,163,702,000 cigarette equivalents, and the difference between the estimated consumption and legal sales (279 million cigarettes) was considered to be smuggling, which constituted 7.2% of total tobacco sales or 8.6% of total (licit + illicit) cigarette sales. However, they admit that this estimate is lower than that of the industry experts, who evaluate it to be more than 15%.

The ITC Uruguay Survey asked smokers whether the health warning label on the package of their usual brand of cigarettes was standard, non-standard, or absent. Non-standard labels or the absence of a label can be indicative of an illicit product and, therefore, tax evasion. The percentage of smokers reporting non-standard warning labels on their cigarette packs remained relatively unchanged at around 6%, while there has been an overall increase in packs with no warning labels: from 2% at Wave 1 to 13% at Wave 4. Total percentage of packs without a standard warning was: 8% - Wave 1 (2006); 10% - Wave 2 (Oct 2008- Feb 2009); 13% - Wave 3 [41] (Oct 2010-Jan 2011) and 17% - Wave 4 (Oct-Dec 12) [4].

The analysis of ITC surveys of 2008, 2010, 2012 and 2014 [43] revealed that the percentage of smokers who chose illegal cigarettes in bordering cities Rivera and Salto were higher than those in the three other cities that were not close to the border. The probability of choosing illegal cigarettes over legal cigarettes is greater for women and increases with age and with greater intensity of consumption. Illegal cigarettes may become a closer substitute for women as they do not generally use RYO, although illegal cigarettes are more expensive than RYO.

The industry sources claim that the illegal cigarette market represents between 20% and 35%. However, as the relevant analysis suggests [44], the full texts of industry-supported studies are normally not made public, but the results are disseminated in the media . According to a survey conducted in 2010 by Synovate, an international consultancy on market research, illegal trade in Uruguay was estimated to be 1.2 billion cigarettes a year¹⁶. However, this was a so-called empty pack study commissioned by the British American Tobacco¹⁷.

The Association of Kioskeros paid for several studies to estimate cigarette smuggling. The studies conducted in 2010 and 2013 were based on the same methodology and were carried out by the same consultant. They showed that smuggling increased from 25.3% in 2010 to 31.2% in 2013¹⁸. Later, the

¹⁶ <https://www.elobservador.com.uy/consumo-tabaco-formal-crecio-pero-el-contrabando-gana-terreno-n271171>

¹⁷ <https://www.tobaccocontrol.org/files/uruguay/MASTER%20Exhibit%20Index.pdf>

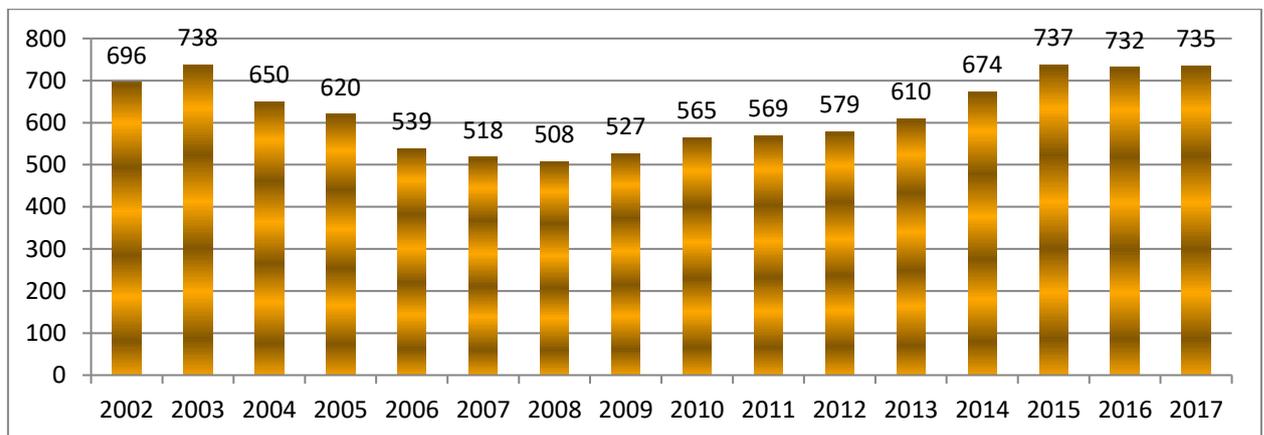
¹⁸ <https://www.carasycaetas.com.uy/kiosqueros-alertan-sobre-el-consumo-de-tabaco-de-contrabando/>

Association claimed that the smuggling of cigarettes already represented 35% of the market¹⁹. However, a national survey conducted in 2016 by the company Cifra at the request of the kioskers, actually revealed that 36% of Uruguayans consume smuggled cigarettes²⁰. As many smokers can consume both licit and illicit cigarettes, the actual market share of illicit cigarettes is much lower than 36%. Media reports show that the main business of the Association of Kioskeros is the fight against tobacco tax increases, as their representatives claim *“it is proven that increasing taxes does not work, but what is increased is smuggling”*^{21 22}. The activities of the Association are very similar to the activities of the tobacco industry front groups in other countries²³.

“The tobacco industry in all countries does the same: it tries to identify that any increase in taxes automatically and mechanically leads to an increase in smuggling,” said public health economist Dardo Curti²⁴. In the case of Uruguay, he said, the evidence does not support this hypothesis. The studies conducted by the Research Center for Tobacco Epidemic (CEIT) showed that in 2010, 13.9% of smokers bought contraband cigarettes and 15.2% in 2014²⁵. In 2016, the director of the National Tobacco Control Program reported that smuggling was estimated to be 16% of tobacco consumption in the country²⁶.

Estimates of cigarette smuggling into Uruguay are also presented in the Euromonitor reports. Euromonitor did not report consistent data about the volumes of cigarettes smuggled in Uruguay, as it did in many other countries [45]. For example, in Euromonitor reports published in different years, smuggling in Uruguay in 2007 was estimated as follows: (1) 584.3 million; (2) 493.9 million; (3) 503.8 million; (4) 518.4 million [23]. As Euromonitor does not disclose their methods of estimating smuggling, it is not possible to check which of four estimates is more accurate. However, if we use the first estimate for 2007, we conclude that in 2007-2011 smuggling decreased, but if we use other estimates for 2007, we have to conclude that in 2007-2001 smuggling increased. Eventually, for Figure 7 we used the latest published estimates.

Figure 7. Euromonitor estimates of cigarettes smuggled into Uruguay, million cigarettes.



¹⁹ <https://www.observador.com.uy/consumo-tabaco-formal-crecio-pero-el-contrabando-gana-terreno-n271171>

²⁰ <http://www.mec.gub.uy/innovaportal/v/98339/22/mecweb/la-gente-esta-cambiando-del-cigarrillo-legal-al-illegal-segun-presidente-de-kiosqueros?3colid=11323&breadid=11323>

²¹ <https://www.elpais.com.uy/informacion/kiosqueros-critican-suba-cigarrillos-aseguran-crecera-contrabando.html>

²² <https://www.observador.com.uy/para-kiosqueros-aumento-cigarros-propicia-contrabando-n857807>

²³ http://www.tobaccotactics.org/index.php?title=Front_Groups

²⁴ <https://negocios.elpais.com.uy/noticias/cigarrillos-contrabando-generan-evasion-us.html>

²⁵ <https://negocios.elpais.com.uy/noticias/cigarrillos-contrabando-generan-evasion-us.html>

²⁶ <https://www.elpais.com.uy/informacion/tabaco-vendido-pais-contrabando.html>

The Euromonitor estimates demonstrate that:

1. Smuggling volumes in 2017 were the same as in 2003.
2. In 2009-2010, when legal cigarette sales decreased by 530 million cigarettes (Figure 4) as cigarette prices increased by 53% due to the tax hikes (Table 3), the smuggling volumes increased only by 57 million cigarettes.
3. In 2011-2014, when there were no tax changes and legal cigarette sales increased, the smuggling volumes increased by 109 million cigarettes.
4. In 2015-2017, when legal cigarette sales decreased by 280 million cigarettes (Figure 4) as cigarette prices increased by 58% due to the tax hikes (Table 3) and tobacco industry pricing policy (Table 4) the smuggling volumes did not increase. However, because legal cigarette sales have decreased, as smoking prevalence has declined, the estimated market share of illicit cigarettes as the proportion of total cigarette sales has increased from 23% in 2015 to 25% in 2017.

Over the whole period under consideration, the estimated market share of illicit cigarettes as a proportion of total cigarette sales has increased from 18% in 2002 to 25% in 2017. However, this share as a proportion of total tobacco (cigarettes + RYO) increased from 15% to 19%. This share is higher than the share reported by the ITC.

According to the Euromonitor estimates, the total (licit + illicit) tobacco consumption in Uruguay declined from 4.84 billion cigarette equivalents in 2004 to 3.85 billion in 2010, then it increased to 4.18 billion in 2015 and decreased again to 3.93 billion cigarette equivalents in 2017.

The changes in the estimated cigarette smuggling volumes in Uruguay have very little correlation with the taxation policy: during the years of tax hikes (2009-2010 and 2015-2017), the increase in smuggling was very moderate, while in 2011-2014, when taxes did not change, the smuggling substantially grew.

Public health experts report much lower estimates of illicit cigarette trade than Euromonitor does. According to estimates made by Curti (2013) [46], in 2004–2012, contraband cigarette sales constituted approximately 12% of total cigarette consumption on average.

Abascal and Ramos-Carbajales [44] used GATS 2009 and 2017 surveys, which included questions on cigarette brands smoked. Both in 2009 and 2017 illicit cigarette consumption was about 250 million sticks or 12% of total cigarette consumption. The authors concluded that the illicit market showed no substantive changes between 2009 and 2017. Possibly, the decrease in the number of smokers who smoke illicit brands is compensated by the higher intensity of smoking among those who do not abandon smoking; thus, the total illicit market remains about the same.

Back in 2006, customs seized 24 million illegal cigarettes; most of those cigarettes had come from Argentina and Paraguay. According to the reports on the FCTC implementation in Uruguay²⁷, more than 7 million illegal cigarettes were seized annually in 2010 and 2011. In 2018, 22 million cigarettes were seized by the National Customs Directorate, most of them were Paraguayan brand 51²⁸. It was reported that most of the cigarettes produced in Uruguay for exporting return to the country to be sold illegally [47].

²⁷ <http://untobaccocontrol.org/impldb/uruguay/>

²⁸ <https://www.elobservador.com.uy/nota/pase-libre-al-contrabando-de-cigarrillos-en-montevideo-se-vende-seis-veces-mas-de-lo-que-se-requiso-en-todo-el-pais-20193105024>

Discussion

There were several different periods in tobacco control policies and their impact on tobacco consumption in Uruguay.

1. **1999-2004.** Tobacco control policy was rather weak, but cigarette affordability declined due to the recession (which began in the first quarter of 1999 and ended in the second quarter of 2003) [30]. Cigarette consumption declined, but most of this decline was compensated for by the increase of the roll-your-own tobacco use (Figure 4). Tobacco excise revenue increased in nominal terms but decreased in real terms.
2. **2005-2008.** In 2005 Uruguay's newly elected administration launched a National Program for Tobacco Control that formed the basis for a succession of progressively more stringent tobacco control policies, including tax increases. However, the impact of the taxation policy was modified by several factors. Only 45% of the abrupt increase in cigarette taxes in July 2007 was passed on to consumers in the form of higher retail prices [48]. This period also showed a large increase of 36% in household real income in Uruguay due to fast economic recovery after the crisis [30]. Cigarette price increases were not high enough to offset the income growth and cigarette affordability increased between 2006 and 2008 [41]. Volumes of cigarettes and RYO tobacco sales did not change much and real tobacco revenue did not increase.
3. **2009-2010.** Tax rates were sharply increased in July 2009 and in February 2010 (Table 3). This time the industry increased its part of the price above the inflation (Table 4). The increase in prices was high enough (Figure 6) to make cigarettes less affordable despite the income growth. Tobacco sales decreased (Figure 4) as well as tobacco consumption [24], while tobacco revenue increased both in nominal and real terms.
4. **2011-2014.** Tobacco tax rates were not changed. Tobacco industry increased its part of the price, but below the inflation. Affordability began to increase again [4], as real cigarette prices fell (Figure 6) and the income continued to rise. This was followed by an increase in cigarette sales, while tobacco excise revenue decreased in real terms. Despite the growth of legal cigarette sales, estimated volumes of cigarette smuggling also increased.
5. **2015-2019.** Tobacco tax rate increased every year. While the tax increase by itself was not very high (on average, 15% each year) its impact was reinforced by the tobacco industry pricing policy: the industry increased its part of the price in line with excise rate increase, so the tax share in the final price almost did not change (Table 4). Cigarettes price increase was high enough to make them less affordable (Table 6) and cigarette sales decreased, while the estimated number of smuggled cigarettes almost did not change. Real tobacco excise revenue increased in 2015-2017 but not in 2018 as the excises increased by 12% with inflation 8%, and tobacco sales continued to decline due to the reduction in tobacco affordability in previous years. In 2019 excise rates increased by 7.8%.

There were two periods when the tobacco taxation policy in Uruguay was really a “win-win” policy: tobacco consumption declined and tobacco revenue increased. This was observed in 2009-2010 and in 2015-2017. The main feature of both periods was the presence of rather sharp increases in the excise tax rates. Another feature was the pricing policy of the tobacco industry, which increased its part of the price above the inflation to keep its profits on the declining market. The monograph from the National Cancer Institute and WHO reveals that this phenomenon is also observed in other countries. It states [49]: *“Ironically, the industry engineered a greater decrease in cigarette consumption in the short term by raising prices than the government was able to achieve by increasing the excise tax alone.”* The impact of taxes on prices and tobacco consumption was also modified by changes in population

incomes, demonstrating the importance of ensuring that tax increases should be high enough to reduce the affordability of tobacco products.

The specific feature of the tobacco market in Uruguay is the high prevalence of RYO tobacco consumption. In the period under consideration, a substantial increase of RYO tobacco sales was observed only in 1999-2004, during the economic recession (Figure 4). Then, despite the increases in real cigarette prices and the decline of cigarette sales, in 2005-2017, the volumes of RYO tobacco sales did not change much and they even decreased in 2009-2013. Daily smoking prevalence of RYO in 2009-2017 decreased from 7.0% in 2009 to 5.0% in 2107 [50] or by 29%, while total daily smoking prevalence decreased from 20.4% to 18.3% or by 10%. The percentage of those who smoked both manufactured and RYO cigarettes gradually decreased from 21% in 2006 to 14% in 2012, while the percentage of those who smoke only RYO cigarettes did not change much [4].

There were two factors that operated in opposite directions: (1) As tobacco prices increase, consumers in Uruguay are most likely to engage in tax avoidance by switching to RYO cigarettes [51]. (2) On the other hand, increased income encourages some more affluent smokers to switch from RYO to manufactured cigarettes. A similar process was observed in other countries. In Ireland, RYO-tobacco consumption reduced when disposable income increased; yet, the economic crisis which began in 2008 was associated with a significant increase in RYO-tobacco consumption [52]. Increases in incomes were associated with lower consumption of RYO-tobacco in Finland and Holland [53].

These two factors actually change the tobacco consumption pattern in a way that RYO tobacco is apparently more smoked by the less affluent people. While the number of RYO smokers declined, the remaining smokers smoke more RYO cigarettes daily so the sales of RYO tobacco were rather stable in recent years. Such people are more price-sensitive; thus, an additional tax increase for RYO tobacco can encourage some of them to quit tobacco smoking for good. The econometric studies determined that for Uruguay the price elasticity of demand for RYO tobacco was -0.88^{29} , while the elasticity of demand for cigarettes in Uruguay was estimated to be: Short-term -0.34 to -0.49 ; Long-term -0.39 to -0.55 [29, 39].

Conclusions

1. Comprehensive tobacco control policies conducted in Uruguay from 2005 substantially decreased smoking prevalence in the country, especially among youth.
2. Tobacco taxation policies were successful only for two periods of time: in 2009-2010 and in 2015-2017 when tobacco tax increases were large enough to reduce the tobacco affordability and to achieve both the decline in tobacco consumption and the increase in the real (inflation-adjusted) tobacco revenue.
3. Changes in cigarette smuggling volumes in Uruguay are almost unrelated to the taxation policy: during the years of tax hikes (2009-2010 and 2015-2017), the estimated increase in smuggling cigarette volumes was very moderate.
4. Tobacco industry pricing policy modified the impact of the taxation policy on tobacco consumption, revenue, and smuggling.

²⁹ http://www.smu.org.uy/elsmu/comisiones/tabaco/inf_ct_tab_en_uruguay.pdf

5. The tax and price of roll-your-own tobacco remain substantially lower than that of cigarettes. While the prevalence of roll-your-own tobacco use declines over recent years, this kind of tobacco products is mainly used by the poorest smokers.

Recommendations

Current tobacco taxation policy of the annual tax increase should be continued, while the rate of the annual increase needs to be increased to at least 20%.

Tax rates for roll-your-own tobacco should be increased faster than those for the manufactured cigarettes: for example, if the annual cigarette tax increase is 20%, the RYO tax rate could be increased by 40%. Such a tax increase could encourage poorer but more price-sensitive RYO smokers to quit, and it would be very beneficial for their health and wellbeing.

Tobacco use surveillance and monitoring should be further developed in Uruguay, including regular surveys with a collection of comprehensive information on tobacco products consumed.

Uruguay authorities already implemented some effective policies to counteract tobacco smuggling. Such efforts should be strengthened in line with the provisions of the FCTC Protocol to Eliminate Illicit Trade in Tobacco Products, which is already ratified by the country. Special attention should be paid to cigarettes legally exported from Uruguay, to prevent their illegal import back to the country. While cigarette smuggling is a problem, it should not be overestimated and used as an argument against further excise increases. The FCTC Article 6 Guidelines state [40]: *The development, implementation and enforcement of tobacco tax and price policies as part of public health policies should be protected from commercial and other vested interests of the tobacco industry, including tactics of using the issue of smuggling in hindering implementation of tax and price policies.*

References

1. Triunfo, P., J. Harris, and A. Balsa, [Evaluation of Uruguay's antismoking campaign: progress and challenges at ten years]. *Rev Panam Salud Publica*, 2016. **40**(4): p. 256-262.
2. Heydari, G., et al., *Comparison of Tobacco Control Programs Worldwide: A Quantitative Analysis of the 2015 World Health Organization MPOWER Report*. *Int J Prev Med*, 2016. **7**: p. 127.
3. Sebrie, E.M., et al., *Smokefree policies in Latin America and the Caribbean: making progress*. *Int J Environ Res Public Health*, 2012. **9**(5): p. 1954-70.
4. The International Tobacco Control Policy Evaluation Project. *ITC Uruguay National Report. Findings from the wave 1 to 4 surveys (2006-2012) August 2014*. 2014; Available from: http://www.itcproject.org/files/ITC_Uruguay_Report-English-Sept24v24.pdf.
5. Nazar, G.P., et al., *Socioeconomic Inequalities in Secondhand Smoke Exposure at Home and at Work in 15 Low- and Middle-Income Countries*. *Nicotine Tob Res*, 2016. **18**(5): p. 1230-9.
6. King, B.A., S.A. Mirza, and S.D. Babb, *A cross-country comparison of secondhand smoke exposure among adults: findings from the Global Adult Tobacco Survey (GATS)*. *Tob Control*, 2013. **22**(4): p. e5.
7. Llambi, L., et al., *Prevalence of invehicle smoking and secondhand smoke exposure in Uruguay*. *Tob Control*, 2018.
8. World Health Organization, *WHO report on the global tobacco epidemic, 2015: Raising taxes on tobacco*. 2015.
9. Marquez, P.V. *Uruguay: A giant leap to prevent tobacco-assisted suicide*. 2016; Available from: <http://blogs.worldbank.org/health/uruguay-giant-leap-prevent-tobacco-assisted-suicide>.
10. World Health Organization. *WHO report on the global tobacco epidemic 2017. Monitoring tobacco use and prevention policies*. 2017; Available from: http://www.who.int/tobacco/global_report/en/.

11. Crosbie, E., P. Sosa, and S.A. Glantz, *Defending strong tobacco packaging and labelling regulations in Uruguay: transnational tobacco control network versus Philip Morris International*. *Tob Control*, 2018. **27**(2): p. 185-194.
12. *Smoking and Health in the Americas. A 1992 Report of the Surgeon General, in collaboration with the Pan American Health Organization*. Report of the Surgeon General 1992; Available from: <https://profiles.nlm.nih.gov/ps/access/NNBBBBJ.pdf>.
13. da Costa e Silva, V.L. and S. Koifman, *Smoking in Latin America: a major public health problem*. *Cad Saude Publica*, 1998. **14 Suppl 3**: p. 99-108.
14. Ministerio de Salud Pública. *1ª Encuesta Nacional de Factores de Riesgo de Enfermedades Crónicas No Transmisibles*. 2006; Available from: http://www.who.int/ncds/surveillance/steps/2006_STEPS_Report_Uruguay.pdf.
15. Ministerio de Salud Pública. *2ª Encuesta Nacional de Factores de Riesgo de Enfermedades No Transmisibles*. 2013; Available from: http://www.who.int/ncds/surveillance/steps/2DA_ENCUESTA_NACIONAL_final_WEB22.pdf.
16. Giovino, G.A., et al., *Tobacco use in 3 billion individuals from 16 countries: an analysis of nationally representative cross-sectional household surveys*. *The Lancet*, 2012. **380**(9842): p. 668-679.
17. Palipudi, K.M., et al., *Social Determinants of Health and Tobacco Use in Thirteen Low and Middle Income Countries: Evidence from Global Adult Tobacco Survey*. *Plos One*, 2012. **7**(3).
18. *Global Adult Tobacco Survey Uruguay 2009 Fact Sheet*. 2009; Available from: http://www.who.int/tobacco/surveillance/fact_sheet_of_gats_uruguay_2010.pdf.
19. Yamaguchi, N., et al., *ED12.06 Tobacco Control Policies in Latin America*. *Journal of Thoracic Oncology*, 2017. **12**(1): p. S56-S57.
20. World Bank Group. *Taxing To Promote Public Goods: Tobacco Taxes*. Expanding the Global Tax Base 2016; Panel Session Held as part of "Winning the tax wars: Global Solutions for developing countries conference". Available from: <http://documents.worldbank.org/curated/en/820951485943150390/pdf/112347-WP-web-copy-PUBLIC.pdf>.
21. Ng, M., et al., *Smoking prevalence and cigarette consumption in 187 countries, 1980-2012*. *JAMA*, 2014. **311**(2): p. 183-92.
22. *Smoking prevalence and attributable disease burden in 195 countries and territories, 1990-2015: a systematic analysis from the Global Burden of Disease Study 2015*. *Lancet*, 2017. **389**(10082): p. 1885-1906.
23. Curti, D. *Expert report*. 2015; Available from: [https://www.tobaccocontrolaws.org/files/uruguay/expert_reports_witness_exhibits/REX-018%20Curti%20Report%20\(REDACTED\).pdf](https://www.tobaccocontrolaws.org/files/uruguay/expert_reports_witness_exhibits/REX-018%20Curti%20Report%20(REDACTED).pdf).
24. Abascal, W., et al., *Tobacco control campaign in Uruguay: a population-based trend analysis*. *Lancet*, 2012. **380**(9853): p. 1575-82.
25. Bloch, M., et al., *Tobacco use and secondhand smoke exposure during pregnancy: an investigative survey of women in 9 developing nations*. *Am J Public Health*, 2008. **98**(10): p. 1833-40.
26. Althabe, F., et al., *Tabaquismo durante el embarazo en Argentina y Uruguay*. *Medicina (Buenos Aires)*, 2008. **68**(1): p. 48-54.
27. *Current tobacco use and secondhand smoke exposure among women of reproductive age--14 countries, 2008-2010*. *MMWR Morb Mortal Wkly Rep*, 2012. **61**(43): p. 877-82.
28. Guindon, G.E. and D. Boisclair *Past, current and future trends in tobacco use*. 2003.
29. Ramos, A. and D. Curti, *Economía del control del tabaco en los países del Mercosur y Estados Asociados: Uruguay*. 2006.
30. Ramos-Carbajales, A. and D. Curti, *[Fiscal policy, affordability and cross effects in the demand for tobacco products: the case of Uruguay]*. *Salud Publica Mex*, 2010. **52 Suppl 2**: p. S186-96.
31. Sebrie, E.M. and S.A. Glantz, *Attempts to undermine tobacco control: tobacco industry "youth smoking prevention" programs to undermine meaningful tobacco control in Latin America*. *Am J Public Health*, 2007. **97**(8): p. 1357-67.

32. Warren, C.W., et al., *Change in tobacco use among 13-15 year olds between 1999 and 2008: findings from the Global Youth Tobacco Survey*. *Glob Health Promot*, 2009. **16**(2 Suppl): p. 38-90.
33. Page, R.M. and M. Danielson, *Multi-country, cross-national comparison of youth tobacco use: findings from global school-based health surveys*. *Addict Behav*, 2011. **36**(5): p. 470-8.
34. Warren, C.W., et al., *Tobacco use, exposure to secondhand smoke, and cessation counseling among medical students: cross-country data from the Global Health Professions Student Survey (GHPSS), 2005-2008*. *BMC Public Health*, 2011. **11**: p. 72.
35. Warren, C.W., et al., *Tobacco use, exposure to secondhand smoke, and cessation counseling training of dental students around the world*. *J Dent Educ*, 2011. **75**(3): p. 385-405.
36. Warren, C.W., et al., *Tobacco use, exposure to secondhand smoke, and training on cessation counseling among nursing students: cross-country data from the Global Health Professions Student Survey (GHPSS), 2005-2009*. *Int J Environ Res Public Health*, 2009. **6**(10): p. 2534-49.
37. Food and Agriculture Organization of the United Nations. *FAOSTAT*. 2017; Available from: <http://www.fao.org/faostat/en/#data/QC>.
38. *Global Adult Tobacco Survey Uruguay 2017 Fact Sheet*. 2017.
39. International Agency for Research on Cancer, *IARC Handbooks of Cancer Prevention in Tobacco Control, Volume 14: Effectiveness of Price and Tax Policies for Control of Tobacco*. International Agency for Research on Cancer, 2011.
40. *Guidelines for implementation of Article 6 of the WHO Framework Convention on Tobacco Control*. 2014; Available from: http://www.who.int/fctc/guidelines/adopted/Guidelines_article_6.pdf.
41. The International Tobacco Control Policy Evaluation Project. *ITC Uruguay National Report. Findings from the wave 1 to 3 surveys (2006-2011) August 2012*. 2012; Available from: http://www.itcproject.org/files/ITC_Uruguay_NR-Aug8-web-v2.pdf.
42. Krasovsky, K., *Tobacco taxation policy in three Baltic countries after the EU accession*. *Tobacco Control and Public Health in Eastern Europe*, 2012. **2**(2): p. 81-98.
43. Curti, D., et al., *Tobacco taxation, illegal cigarette supply and geography: findings from the ITC Uruguay Surveys*. *Tob Control*, 2019. **28**(Suppl 1): p. s53-s60.
44. Abascal, W. and A. Ramos-Carbajales. *Confronting illicit tobacco trade: a global review of country experiences. Uruguay: tackling illicit tobacco trade*. . 2019; Available from: <http://pubdocs.worldbank.org/en/521371548435125816/WBG-Tobacco-IlicitTrade-Uruguay.pdf>.
45. Blecher, E., et al., *Euromonitor data on the illicit trade in cigarettes*. *Tob Control*, 2015. **24**(1): p. 100-1.
46. Curti, D., *El comercio ilícito ´ en Uruguay y su relacion´ con los impuestos: resultados de investigaciom´ (Illicit trade in Uruguay and its relation to taxes: research results)*. 2013, Centro de Investigación para la Epidemia de Tabaquismo (CIET): Montevideo.
47. Muller, F. and L. Wehbe, *Smoking and smoking cessation in Latin America: a review of the current situation and available treatments*. *Int J Chron Obstruct Pulmon Dis*, 2008. **3**(2): p. 285-93.
48. Harris, J.E., A.I. Balsa, and P. Triunfo, *Tobacco control campaign in Uruguay: Impact on smoking cessation during pregnancy and birth weight*. *J Health Econ*, 2015. **42**: p. 186-96.
49. U.S. National Cancer Institute and World Health Organization, *The Economics of Tobacco and Tobacco Control*, in *National Cancer Institute Tobacco Control Monograph 21*. 2016, U.S. Department of Health and Human Services, National Institutes of Health, National Cancer Institute; World Health Organization: Bethesda, MD; Geneva, CH.
50. *Uruguay GATS 2017-2009 comparison Fact Sheet*. 2017.
51. Curti, D., et al., *The use of legal, illegal and roll-your-own cigarettes to increasing tobacco excise taxes and comprehensive tobacco control policies: findings from the ITC Uruguay Survey*. *Tob Control*, 2015. **24 Suppl 3**: p. iii17-iii24.
52. Cornelsen, L. and C. Normand, *Is roll-your-own tobacco substitute for manufactured cigarettes: evidence from Ireland?* *J Public Health (Oxf)*, 2014. **36**(1): p. 65-71.

53. Nguyen, L., G. Rosenqvist, and M. Pekurinen, *Demand for Tobacco in Europe-An Econometric Analysis of 11 Countries for the PPACTE Project*. Raportti: 2012_006, 2012.