



## Tobacco Taxes in Latin America

Policy Brief N° 5/2019

# ECUADOR

## ACCELERATING EFFECTIVE TOBACCO TAXES IN ECUADOR: THE IMPACT OF TAX POLICY

This Policy Brief was prepared by The South American Network on Applied Economics/Red Sur and presents the main policy recommendations emerging from the baseline study for Ecuador, by the Pontificia Universidad Católica del Ecuador (PUCE), within the UIC-Red Sur project “Tobacco Taxes in Latin America” coordinated by the Institute for Health Research and Policy of the University of Illinois at Chicago (UIC) and supported by the Bloomberg Initiative to Reduce Tobacco Use.

## INTRODUCTION

The tobacco agribusiness in Ecuador is not one of the most important economic sectors either in terms of its level of contribution in Gross Domestic Product (GDP) value added (0.01% of GDP in 2016), export share (0.25% of total exports in 2017) or direct job generation (less than 0.01% of the economically active population in 2017). At present there are about 364 active taxpayers whose line of business is directly related to the tobacco production chain and account for 0.02% of the universe of taxpayers. However, three companies belonging to the Philips Morris Group (TANASA, ITABSA, PROESA) concentrate the market for the manufacture and wholesale of tobacco products.

The objective of this research is to analyze the impact of tax reforms on the price and consumption of cigarettes and on tax revenue. It also presents the main recommendations on making tax policies more effective in reducing tobacco consumption.

## TOBACCO USE IN ECUADOR

According to the Living Conditions Survey (2014), 8.82% of the population over 12 years of age in Ecuador smoke, either daily or occasionally (about 1,063,533 individuals). 87.6% of them are men and 12.4% are women. At the geographic area level, almost two thirds of the smoking population live in urban areas, and 27.3% live in rural areas. Eight out of ten smokers define themselves as mestizo; and the highest number of smokers are in the 30-45 year old age group, but 50% of smokers start smoking when they are between 16 and 19 years old. Smokers are concentrated in the upper secondary and university education groups and come from the richer quintiles of the population (4 and 5).

Ecuador signed the Framework Convention on Tobacco Control (FCTC) in 2004 and ratified it in 2006. The country has adopted and implemented a number of measures to prevent and reduce tobacco consumption. The following are some of the main non-tax measures:

- Passing the Organic Law for the Regulation and Control of Tobacco (LORCT) in 2011 and issuing its regulations in 2012. In the context of this law, measures have been implemented such as 100% smoke-free areas, graphic health warnings, a ban on sales to minors, advertising restrictions, among others.

- The signing of the Protocol to Eliminate Illicit Trade in Tobacco Products (2014) ratified in June 2018.

- The establishment and funding of a national intersectoral coordination mechanism for tobacco control: *Comité Interinstitucional de Lucha Anti Tabáquica* (CILA - Inter-Institutional Committee for the Fight against Tobacco).

## TOBACCO TAXATION STRUCTURE IN ECUADOR

Tobacco tax revenue comes from four main taxes:

- a) Special Consumption Tax (ICE) on cigarettes.
- b) Tobacco tariffs.
- c) Income Tax on the different taxpayers along its production chain.
- d) Value Added Tax (VAT) on its consumption.

In addition to the non-tax measures implemented, the country has adopted a number of tax measures to reduce its consumption. The main tax measures include an increase in the Special Consumption Tax and tariffs on tobacco and the recent implementation of the System for Identification, Marking, Authentication, Tracking and Tax Traceability (SIMAR)<sup>1</sup> in 2017. It should be noted that the revenue from the collection of the Special Consumption Tax on cigarettes has not been pre-assigned to covering public health expenditures linked to their consumption.

Specifically with regard to the Special Consumption Tax on cigarettes, it has undergone a number of changes in rate and its calculation in the following four chronological stages:

1> Ministry of Public Health (n.d.). Ecuador is an international leader in tobacco control <https://bit.ly/2JdYvyd> [Retrieved: 06-26-18].

**I. From 1989 to 1992:** an ad valorem rate levied a maximum of 260% on foreign-brand blond cigarettes and a lower rate of between 200% and 240% on domestic-brand cigarettes.

**II. From 1993 to 2006:** the ad valorem rate is drastically reduced to 98% and is charged simply by cigarette type (blond or black) without any distinction between national or foreign brands. Blond cigarettes were always levied at a higher rate than black tobacco.

**III. From 2007 to 2011:** the ad valorem rate was increased in 2007 to 150% without distinguishing cigarette type until late 2011.

**IV. 2012 to the present:** a specific rate is levied per unit, without distinguishing cigarette types or brands. This rate increased from 0.08 cents of a dollar in 2011 to 0.16 cents in 2018. The 150% ad valorem rate has been maintained, but only for tobacco substitute products, whose sale is marginal in the country.

Statistical evidence shows that for tax reforms that have increased the ad valorem rate and/or the specific rate per unit on tobacco, the increase has been transferred by the industry to the consumer through price increases. The tax burden on cigarettes, that is, how much of the price of cigarettes is accounted for by the Special Consumption Tax (ICE) and VAT, was close to 64.29% in 2011 and reached 66.37% in mid-2018, a value that is still below the 70% of excise taxes recommended by the WHO's Framework Convention on Tobacco Control as a benchmark.

## RESEARCH FINDINGS

In terms of revenue, the share of the Special Consumption Tax on tobacco has tended to decrease in relation to the GDP, going from 0.19% in 2002 to 0.08% in 2017. Although the tax reforms to the ICE on cigarettes initially increased revenue in absolute terms, as of 2015, when the rate was almost doubled, revenue began to decline. This behaviour is reflected in the decrease in sales reported by tobacco-related Internal Revenue Service (IRS) taxpayers.



PUCE used available micro-data<sup>2</sup> and time series data to preliminarily evaluate the sensitivity of demand for cigarette to variations in cigarette price and consumer income. The cross-section estimates show that cigarettes are relatively inelastic goods.

Regarding the short- and long-term elasticities, a preliminary estimation using the methodology proposed by González-Rozada & Berlinski (2019) shows that in the long term, a 10% increase in the price causes a 19.6% drop in cigarette consumption. On the other hand, a 10% increase in income leads to a 15.7% increase in the consumption of cigarettes in Ecuador. Despite the limitations on the data, the sign of the estimator is consistent with the theory.

The table below contains the results of the estimates with the long-term price elasticity parameter. The interesting part of the analysis is the drop in the consumption, since if the tax rate as the share of the price per unit increases to 69% (from the current US\$ 0.16 tax per stick to US 0.27 per stick; resulting in increasing the retail price from US 5.6 to US 7.8 per pack), the consumption decreases to about 12 million cigarettes.

---

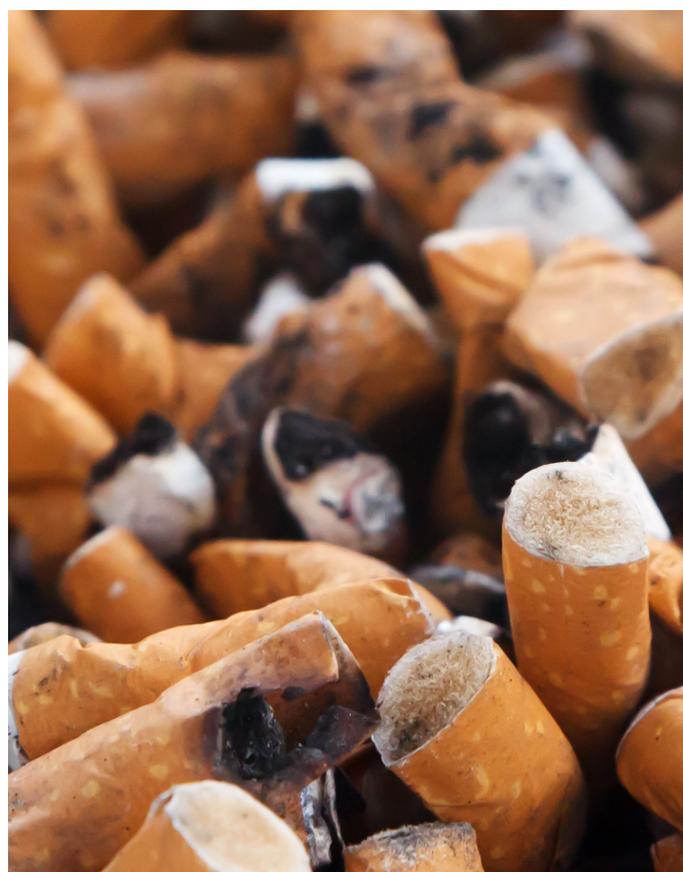
2> The first group of estimates (microdata) used the baseline of Ecuador's National Survey of Urban and Rural Household Income and Expenditures (ENIGHUR) 2011–2012.

**Table 1: Results of simulated increases in the retail price of a packet of 20 cigarette units**

Scenarios	Cigarette sales (thousands of units)
Baseline	54,852
Scenario 1	44,101
Scenario 2	33,350
Scenario 3	22,599
Scenario 4	11,848

Source: Devised by PUCE researchers based on administrative records of the Internal Revenue Service and National Institute of Statistics and Census January 2012-December 2017.

While the approaches used in this study make it possible to preliminarily estimate the elasticity parameters, they fail to consider decisive aspects that can affect the estimate of the amount change parameter in relation to the individual's personal characteristics. The first approach makes an estimate at the household consumption level, thereby missing a number of determinants and parameters of the individual's behaviour that are part of household consumption. This hampers the identification of elasticity parameters within that measurement unit in particular. Furthermore, as a result of the number of observations (72 altogether), the estimate with time series does not guarantee robust results because there is no adequate capture of the variable's behaviour over time. Due to this error, the estimators obtained may be affected by a bias in the calculated magnitudes. In addition, the income series is based on an estimate rather than historical data; the absence of a significant part of this series means that there is no adequate record of its historical behaviour. It is for this reason that only general conclusions can be drawn, and further research is needed.

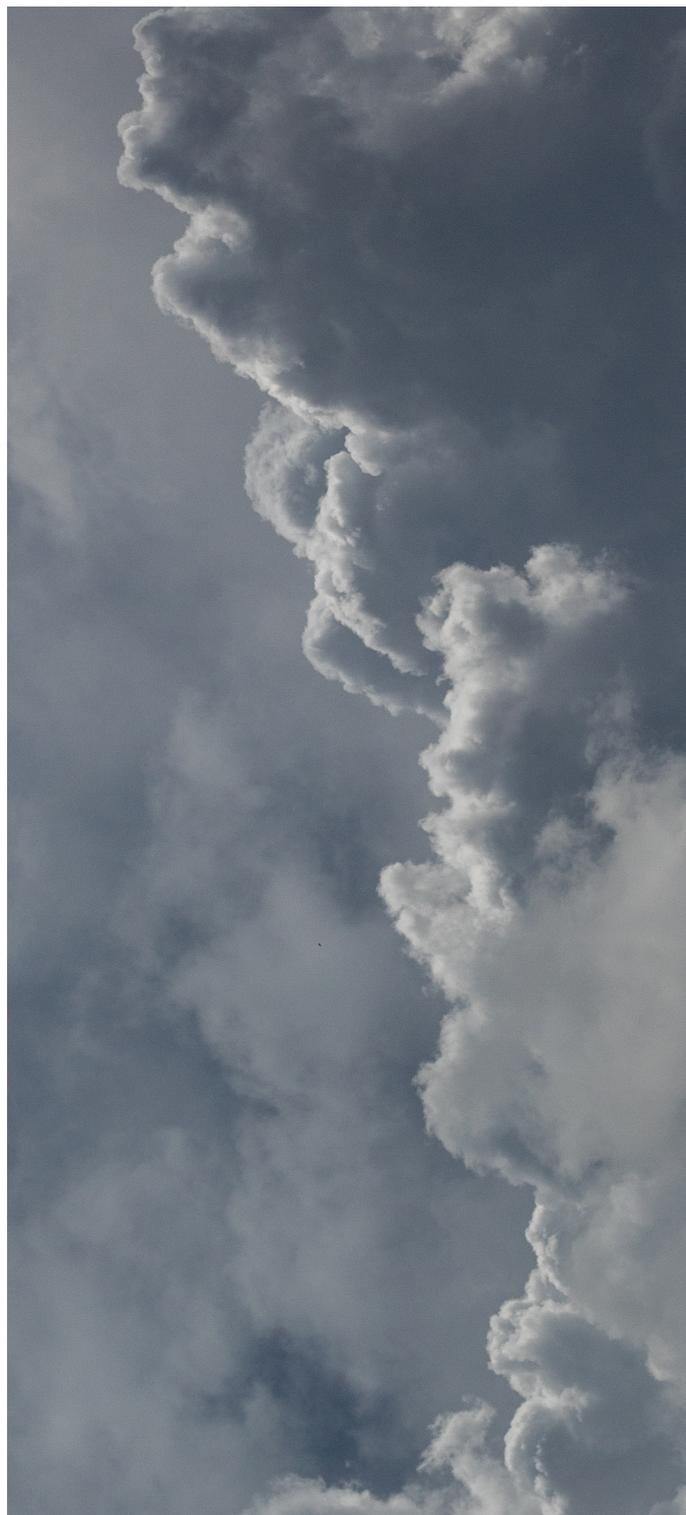


## POLICY RECOMMENDATIONS

One of the greatest challenges during this research was the limited monthly information on income, as well as outdated information from the National Survey of Urban and Rural Household Income and Expenditures (ENIGHUR) and the Living Conditions Survey, which made it impossible to obtain more robust estimates. For this reason, it is necessary to support the National Institute of Statistics and Census so that it will incorporate more detailed information on tobacco consumption into these national surveys, which would help the authorities to improve the design of tax policies and then assess their impact.

In regard to the retail market, there is a greater presence of foreign-brand cigarettes that are meeting the demand for cigarettes. While the implementation of SIMAR has improved the registry of taxpayers and made more information available to close the tax return gap, it is necessary to support the IRS in estimating the evasion gap, and other public institutions need to join the control process for improved efficiency.

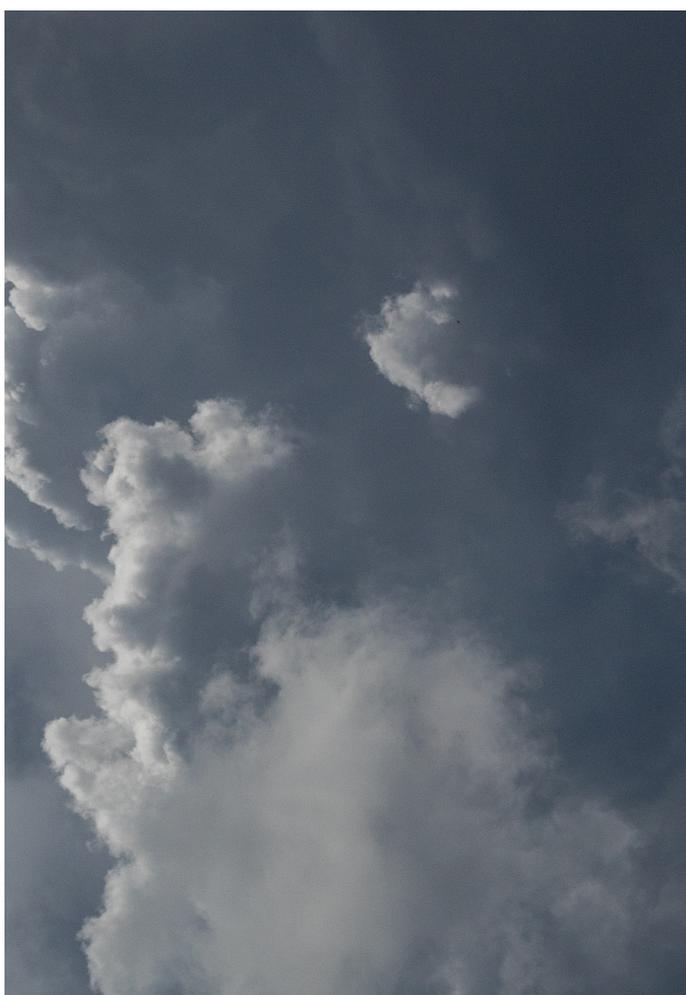
Finally, it is necessary to accelerate the effectiveness of policies in order to reduce tobacco consumption by increasing the tax burden to change the consumption patterns of individuals. However, this effort must not be disjointed and isolated from other demand-side public policies related to health and education which promote prevention and control measures aimed at household habits and promoting healthy lifestyles. Additionally, it is absolutely necessary to work on the supply-side through the implementation of public policies that will discourage production.



## REFERENCES

**GONZÁLEZ-ROZADA, M. and BERLINSKI, J. (2019).** Acelerando la fiscalidad efectiva al tabaco en Argentina: Impacto de las reformas impositivas. Country Study N° 1/2019, Red Mercosur.

**ALMEIDA, M.D.; AMOROSO, X. and BURGOS, S. (2019).** Acelerando la fiscalidad efectiva al tabaco en Ecuador: Impacto de la política tributaria. Country Study N° 5/2019, Red Mercosur.



**This Policy Brief is based on the Country Study “Accelerating Effective Tobacco Taxes in Ecuador: The impact of tax policy”, developed as part of the project “Tobacco taxes in Latin America”.**

© Red Sudamericana de Economía Aplicada/Red Sur  
Luis Piera 1992, Piso 3 - Edificio Mercosur, CP 11200,  
Montevideo, Uruguay  
Website: [www.redsudamericana.org](http://www.redsudamericana.org)  
**ISBN print edition: 978-9974-8718-3-0**  
**ISBN electronic edition: 978-9974-8718-5-4**  
March, 2019

**Coordination:** Cecilia Alemany  
**Project Officer:** Carolina Quintana  
**Edition:** Natalia Uval  
**Communication and design:** ALVA Creative House  
**Layout and production:** Diego García

*All rights reserved. The total or partial reproduction of this work by any means (either graphic, electronic, optical, chemical, mechanical, photocopying, etc.), or its storage or transmission in any form (magnetic, audio, video or any other media) are not allowed without prior consent from Red Sur. To obtain written permission to perform any form of reproduction or to proceed with the translation of this publication, please contact the Coordination Office via email at: [coordinacion@redmercosur.org](mailto:coordinacion@redmercosur.org)*



## CONTRIBUTIONS AND ACKNOWLEDGMENTS

The publication of this Policy Brief was made possible through the support of the Institute for Health Research and Policy of the University of Illinois, Chicago (UIC IHRP). UIC is a partner in the Bloomberg Philanthropies’ **Initiative to Reduce Tobacco Use**, which studies fiscal policy alternatives as an effective tool to reduce the levels of tobacco consumption and improve health. It does so through a web-based platform called “**Tobacconomics**” (see more information on <https://tobacconomics.org>).

Within this global initiative, Red Sur led the regional research “Tobacco taxes in Latin America”, which mobilized seven research centers to study the different options for tobacco tax policies in Argentina, Brazil, Ecuador, Mexico and Peru.

The Project “**Tobacco taxes in Latin America**” was under the Executive Direction of Andrés López (IIEP-BAIRES/FCE UBA, Argentina/Red Sur) and the Coordination of Cecilia Alemany (Red Sur). The Academic Coordination was under the responsibility of a Regional Technical Coordination team, led by Fernando Lorenzo (Centro de Investigaciones Económicas, CINVE/Red Sur) and Oscar Cetrángolo (Instituto Interdisciplinario de Economía Política de Buenos Aires, IIEP-UBA-CONICET/ Red Sur), with the collaboration of Pedro Velasco (UNLP, IIEP-UBA-CONICET/Red Sur) and Carlos Grau (CINVE/Red Sur). The team acknowledges and thanks the comments of Germán Rodríguez-Iglesias (UIC IHRP). The dimensions of analysis were discussed during two research workshops held in Montevideo in 2018, which brought together all national teams, the regional team and the Global Technical Coordination team of Tobacconomics Frank J. Chaloupka, Germán Rodríguez-Iglesias and Erika Siu (UIC IHRP).

No.	Country Study title	Research Team	Center/Country
1	Accelerating effective tobacco taxes in Argentina: <b>The impact of tax reforms</b>	Martín González-Rozada and Julio Berlinski	Instituto Torcuato Di Tella (ITDT/Red Sur) <b>Argentina</b>
2	Accelerating effective tobacco taxes in Argentina: <b>Fiscal and productive aspects</b>	Ricardo Rozemberg, Gabriel Bezchinsky and Ariel Melamud	Centro iDeAS, Universidad Nacional de San Martín (UNSAM) <b>Argentina</b>
3	Accelerating effective tobacco taxes in Brazil: <b>Trends and perspectives</b>	Livio Ribeiro and Vilma Pinto	Fundação Centro de Estudos do Comércio Exterior (FUNCEX/Red Sur) <b>Brazil</b>
4	Accelerating effective tobacco taxes in Peru: <b>Towards sustainable policies</b>	Carlos De los Ríos, Hugo Córdova and Marco Ugarte	Instituto de Estudios Peruanos (IEP) <b>Peru</b>
5	Accelerating effective tobacco taxes in Ecuador: <b>The impact of tax policy</b>	Pedro Páez, Paola Minda, María Dolores Almeida, Ximena Amoroso and Sebastián Burgos	Pontificia Universidad Católica del Ecuador (PUCE) <b>Ecuador</b>
6	Accelerating effective tobacco taxes in Mexico: <b>Tax policy and health costs</b>	Claudia Córdova, Rodrigo Bolaños, Dalia Toledo, Alejandro Alegría and Liliana Alvarado	Laboratorio de Políticas Públicas (ETHOS) <b>Mexico</b>
7	Accelerating effective tobacco taxes in Mexico: <b>Special taxes, consumption, inequality and poverty</b>	Luis Huesca, Linda Llamas, Cuauhtémoc Calderón and Abdelkrim Araar	Centro de Investigación en Alimentación y Desarrollo (CIAD) <b>Mexico</b>

