

Considerations on the impact of tax policy on cigarette sales and consumption in Brazil

Considerações acerca do impacto da política de impostos sobre o comércio e o consumo dos cigarros no Brasil

Consideraciones sobre el impacto de la política fiscal en la venta y consumo de cigarrillos en Brasil

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On March 26, 2019, the Brazilian Ministry of Justice and Public Security published *Ruling n. 263/2019*, establishing a working group to assess the possibility of tax cuts on cigarettes manufactured in Brazil, aimed at “*decreasing the consumption of low-quality foreign cigarettes, contraband, and the resulting health risks*”. According to the Ruling, the working group would address such topics as proposals to reduce the consumption of these cigarettes and even the possibility of reducing taxes on those manufactured inside Brazil to avoid the consumption of “low-quality” foreign cigarettes.

The scientific basis cited for the working group’s implementation was the study entitled *Uma Alternativa de Combate ao Contrabando de Cigarro a partir da Estimativa da Curva de Laffer e da Discussão sobre a Política de Preço Mínimo* [An Alternative for Combatting Cigarette Contraband based on the Laffer Curve Estimate and Discussion of the Minimum Price Policy] ².

The above-mentioned document states that contraband cigarettes do not display the same quality as legal Brazilian cigarettes and are thus more harmful to health, and that illegal trade accounts for more than half of the Brazilian cigarette market.

The working group includes representatives from the Federal Police, National Consumer Department, and special advisors on legislative matters and representatives of the Ministries of the Economy and Health ¹.

The current article aims to contribute to the analysis of the assumptions and topics under study by the working group as indicated in the Ruling, and to propose measures to reduce the illicit trade in tobacco products.

On price cuts for cigarettes

Price increases on tobacco products, especially promoted by tax increases, are one of the most effective ways to reduce tobacco product consumption, especially among the poor ^{3,4}.

A monograph ⁵ published by the National Cancer Institute of the United States in collaboration with the World Health Organization (WHO), in which studies from various countries were analyzed, concluded that there is a correlation between higher taxes and prices and a reduction in tobacco consumption and prevalence. The monograph concludes that a 10% increase in cigarettes prices

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can decrease tobacco consumption by 4% in high-income countries and 5% in medium and low-income countries.

Several authors state that tax increases have the capacity to discourage tobacco consumption more among the poor than among the rich. Lower tobacco consumption would decrease the impact of the cost of purchasing these products on the family budgets, and would thus be the intervention with the greatest potential to reduce socioeconomic inequities from smoking⁶, besides serving as an important instrument for reducing poverty⁷. This is a particularly important factor, since smoking in Brazil shows a strong association with low income and low schooling⁸.

Meanwhile, some evidence suggests that cigarette price increases may lead to substituting consumption of legal tobacco products with contraband or counterfeit cigarettes or other forms of tobacco consumption⁹.

In the Brazilian case, one study suggests that both situations occur, namely a larger reduction in smoking prevalence and a smaller increase in the consumption of illicit products¹⁰. However, the benefit from cessation outweighed the increase in illicit trade¹⁰.

In addition, the scientific literature indicates that in Brazil the increase in cigarette taxes and the resulting price increase was the measure that most contributed to the drop in the country's smoking prevalence¹¹.

In Brazil, smoking causes some 156,000 deaths a year, 157,000 acute myocardial infarctions, 75,000 strokes, and 63,000 cancers^{12,13}. Tobacco-related medical events generate a cost to the Brazilian health system of BRL 57 billion per year, or USD 15 billion (0.96% of the GDP), compared to tax revenues on tobacco products of BRL 13 billion per year, or USD 3.4 billion¹⁴. In other words, for every real Brazil collects in taxes on tobacco products, the country spends more than BRL 4 on treating smokers' tobacco-related health problems^{13,14}.

Smoking is also a contributing factor to impoverishment, especially among low-income Brazilians. According to data from the *National Household Sample Survey* (PNAD, 2002-2003)¹⁵, Brazilian smokers spent more on cigarettes than on rice and beans, the country's main staple foods. The PNAD in 2008-2009 had already reported that women smokers spent an average of 12% of a monthly minimum wage on industrialized cigarettes¹⁶.

Given the above, a tax cut on cigarettes would erase the strides made in tobacco control policies in Brazil, encourage smoking among the poor, and ultimately increase poverty levels. Tax cuts on cigarettes would further increase expenditures on health, as represented by the difference between taxes levied on tobacco products and medical expenses due to smoking.

Illicit trade and the “low quality” of foreign cigarettes

Illicit trade in tobacco products affects tobacco control policies by offering cheaper products, which facilitates access, thus interfering in policies based on increasing the prices on these products^{3,4}.

Thus, the assumption that illicit trade impacts the population's health is valid, since cigarette smoking is related to numerous diseases. On the other hand, there is no evidence that supposedly “low quality” cigarettes have a greater health impact than Brazilian cigarettes.

According to the WHO, tobacco is “*deadly in any form or disguise*”¹⁷. Therefore, the term “low quality” should not be applied to tobacco products, since “quality” does not decrease their negative impacts; suffice it to consume the tobacco for such impacts to occur. In short, both products (legal and contraband cigarettes) are equally harmful to health from the toxicological point of view.

In addition, according to an interview in *Informe ENSP* with economist and specialist in the tobacco economy Dr. Roberto Magno Iglesias, “*Brazil is the main supplier to the industrial park that produces Paraguayan cigarettes*”, including tobacco leaves and inputs for manufacturing¹⁸.

Corroborating these remarks, in 2018 the Brazilian Internal Revenue Service and Federal Police accused Brazilian companies of money laundering and exporting tobacco illegally to Paraguay, or supplying Brazilian-grown raw materials to the Paraguayan factories that feed the illicit cigarette trade in Brazil¹⁹.

The claim of a “quality” issue between Brazilian versus foreign tobacco products thus makes no sense.

Possibly due to the market share of Paraguayan brands on the Brazilian market, there have even been reports of counterfeiting of Paraguayan cigarettes by clandestine factories inside Brazil ^{20,21}.

According to the Brazilian National Cancer Institute (INCA), illicit cigarettes account for 38% of the Brazilian cigarette market ²², while organizations affiliated with the tobacco industry place this figure higher, at 48% ²³. According to INCA, one possible reason for the industry's overestimation of the illicit market in Brazil would be to pressure the government to lower tobacco taxes and hamper important tobacco control policies ²².

Interference by the tobacco industry in public health policies

A story published in the newspaper *Folha de S.Paulo* ²⁴ suggests that the tobacco industry may have influenced the decision to assemble the working group, reporting that the document cited as the scientific basis for implementing the working group was commissioned by an institution that has a partnership with a cigarette manufacturer, although the authors claim that the demand was spontaneous, with no funding by the tobacco industry. According to the same newspaper story, representatives of cigarette manufacturers held meetings with Brazilian government authorities in the month prior to formation of the working group.

It is certainly complex to determine whether and to what extent there was interference in cigarette price policies and thus in health policies. In case such strategies are confirmed, they are no different from those used by the tobacco industry elsewhere in the world ²⁵. According to the taxonomy proposed by Ulucanlar et al. ²⁵, the tobacco industry's discursive strategies aim to disseminate their claims that public health tobacco control policies will lead to unanticipated costs to the economy and society (in the economic and law enforcement domains) and unintended benefits to undeserving groups (like cigarette smugglers), while failing to deliver the intended public health benefits.

Final remarks and recommendations

The cigarette tax cut analyzed here, if enforced, has the potential to reverse the important strides Brazil has made in tobacco control policies, while increasing health expenses, stimulating tobacco use, especially among the poor, and thus increasing poverty levels and illness in this group.

Another important point is that although illicit tobacco products cause impacts on public health, in fact all tobacco products are intrinsically harmful to health, regardless of their place of origin or whether they regularly registered with the health authority.

Importantly, the Ministry of Justice and Public Security should have reliable information on the cigarette trade in Brazil to back any decision, including assessment of market participation in the country by counterfeit brands manufactured inside Brazil.

There is no evidence that tax cuts on cigarettes would benefit public health or the public coffers in any way. The Brazilian government needs to reduce the number of smokers. The following proposals are intended to contribute to the discussion on the curtailment of the illicit market, increase tax revenues, and reduce smoking:

- (1) Establish price and tax policies for all tobacco products, not only for cigarettes. This could help prevent smokers from switching to other tobacco products, while increasing tax revenues.
- (2) Classify the marketing and the transportation of illicit tobacco products as drug traffic, regardless of the origin of the product. Legal tobacco products would continue to receive the current treatment.
- (3) Invest in infrastructure for inspection and enforcement for all agencies involved in combatting illicit trade, as well as enforcing the WHO protocol against illegal trade in tobacco products, to which Brazil is a signatory ²⁶.
- (4) Establish standardized packaging for all tobacco products, which would reduce smoking and facilitate identification of contraband and counterfeit brands.
- (5) Allow tobacco product sales exclusively in establishments authorized for this kind of trade. This would facilitate the identification and repression of illicit trade.

- (6) Determine which share of revenues from tobacco taxes would be allocated specifically to funding research and activities to combat illicit tobacco trade.
- (7) Identify the countries that supply products to the illicit Brazilian trade and establish terms of cooperation with these countries. Most illicit cigarettes in Brazil are actually legal products in their countries of origin. Collaboration with these countries could produce important benefits.
- (8) Improve control of the exportation, from Brazil, of tobacco leaves and components for manufacturing cigarettes.
- (9) Step up activities against Brazilian companies and people that counterfeit foreign brands.

Contributors

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Additional informations

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1. Ministério da Justiça e Segurança Pública. Portaria nº 263, de 23 de março de 2019. Institui o Grupo de Trabalho, no âmbito do Ministério da Justiça e Segurança Pública, para avaliar a conveniência e oportunidade da redução da tributação de cigarros fabricados no Brasil. Diário Oficial da União 2019; 26 mar.
2. Margarido MA, Nicola ML, Shikida PFA. Uma alternativa de combate ao contrabando de cigarro a partir da estimativa da Curva de Laffer e da discussão sobre a política de preço mínimo. In: XV Encontro Nacional da Associação Brasileira de Estudos Regionais e Urbanos/I Latin-American and Caribbean Regional Science Association Congress. São Paulo: Associação Brasileira de Estudos Regionais e Urbanos; 2017. p. 1-20.
3. World Health Organization. WHO Report on the Global Tobacco Epidemic, 2008: The MPOWER package. Geneva: World Health Organization; 2008.
4. Joossens L, Raw M. Turning off the tap: the real solution to cigarette smuggling. *Int J Tuberc Lung Dis* 2003; 7:214-22.
5. U.S. National Cancer Institute; World Health Organization. The economics of tobacco and tobacco control. Bethesda: U.S. Department of Health and Human Services, National Institutes of Health, National Cancer Institute/ Geneva: World Health Organization; 2016. (National Cancer Institute Tobacco Control Monograph, 21).
6. Hill S, Amos A, Clifford D, Platt S. Impact of tobacco control interventions on socioeconomic inequalities in smoking: review of the evidence. *Tob Control* 2014; 23:e89-97.
7. Koch SF. Quasi-experimental evidence on tobacco tax regressivity. *Soc Sci Med* 2018; 196:19-28.

8. Bazotti A, Finokiet M, Conti IL, França MTA, Waquil PD. Tabagismo e pobreza no Brasil: uma análise do perfil da população tabagista a partir da POF 2008-2009. *Ciênc Saúde Colet* 2016; 21:45-52.
9. De Cicca P, Kenkel DS, Liu F. Who pays cigarette taxes? The impact of consumer price search. <http://www.nber.org/papers/w15942> (accessed on 28/Mar/2019).
10. Iglesias RM. Increasing excise taxes in the presence of an illegal cigarette market: the 2011 Brazil tobacco tax reform. *Rev Panam Salud Pública* 2016; 40:243-9.
11. Levy D, de Almeida LM, Szklo A. The Brazil Sim Smoke policy simulation model: the effect of strong tobacco control policies on smoking prevalence and smoking-attributable deaths in a middle income nation. *PLoS Med* 2012; 9:e1001336.
12. Pinto M, Ugá MAD. Os custos de doenças tabaco-relacionadas para o Sistema Único de Saúde. *Cad Saúde Pública* 2010; 26:1234-45.
13. Pinto MT, Pichon-Riviere A, Bardach A. Estimativa da carga do tabagismo no Brasil: mortalidade, morbidade e custos. *Cad Saúde Pública* 2015; 31:1283-97.
14. Pinto MT, Bardach A, Palacios A, Biz A, Alcaraz A, Rodríguez B, et al. Carga de doença atribuível ao uso do tabaco no Brasil e potencial impacto do aumento de preços por meio de impostos. Buenos Aires: Instituto de Efektividad Clínica y Sanitaria; 2017. (Documento Técnico IECS, 21).
15. Instituto Brasileiro de Geografia e Estatística. Pesquisa de Orçamentos Familiares 2002-2003. <http://ibge.gov.br/home/estatistica/populacao/condicaodevida/pof/2002/default.shtm> (accessed on 13/Jul/2016).
16. Instituto Brasileiro de Geografia e Estatística. Pesquisa de Orçamentos Familiares 2008-2009. http://www.ibge.gov.br/home/estatistica/populacao/condicaodevida/pof/2008_2009/ (accessed on 13/Jul/2016).
17. World Health Organization; WHO Tobacco Free Initiative. Tobacco: deadly in any form or disguise. <http://www.who.int/iris/handle/10665/43465> (accessed on 28/Mar/2019).
18. Entrevista: Brasil é o principal fornecedor do complexo produtivo do cigarro paraguaio. *Informe ENSP* 2017; 28 aug. <http://www.ensp.fiocruz.br/portal-ensp/informe/site/materia/detalhe/42438>.
19. G1 RS. Receita Federal faz operação contra fraudes de R\$ 277 milhões no setor fumageiro do Rio Grande do Sul. G1 2018; 15 aug. <https://g1.globo.com/rs/rio-grande-do-sul/noticia/2018/08/15/receita-federal-faz-operacao-contrafraudes-de-r-277-milhoes-no-setor-fumageiro-do-rio-grande-do-sul.ghtml>.
20. Galvão C. Polícia de SP prende quadrilha que falsificava cigarros do Paraguai. *Hora 1* 2016; 25 may. <http://g1.globo.com/hora1/noticia/2016/05/policia-de-sp-prende-quadrilha-que-falsificava-cigarros-do-paraguai.html>.
21. Müller I. Fábrica clandestina falsificava cigarros do Paraguai no interior. *Gazeta do Povo* 2017; 11 sep. <http://www.gaz.com.br/conteudos/policia/2017/09/11/102682-fabrica-clandestina-falsificava-cigarros-do-paraguai-no-interior.html.php>.
22. Szklo AS, Iglesias RM. *Vigitel 2017 e estimativa de consumo de cigarros ilícitos no Brasil*. Rio de Janeiro: Instituto Nacional de Câncer José Alencar Gomes da Silva; 2018.
23. Contrabando de cigarros no Brasil atinge nível recorde em 2017. <https://www.etco.org.br/noticias/contrabando-de-cigarros-no-brasil-atinge-nivel-recorde-em-2017> (accessed on em 08/Nov/2018).
24. Cancian N, Brant D. Indústria do cigarro ganha R\$ 7,5 bi com projeto anticontrabando de Moro. *Folha de S.Paulo* 2019; 4 may. <https://www1.folha.uol.com.br/mercado/2019/05/industria-do-cigarro-ganha-r-75-bi-com-projeto-anticontrabando-de-moro.shtml>.
25. Ulucanlar S, Fooks GJ, Gilmore AB. The policy dystopia model: an interpretive analysis of tobacco industry political activity. *PLoS Med* 2016; 13:e1002125.
26. Brasil. Decreto nº 9.516, de 1º de outubro de 2018. Promulga o Protocolo para Eliminar o Comércio Ilícito de Produtos de Tabaco, de 12 de novembro de 2012. *Diário Oficial da União* 2018; 2 oct.

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