

# THE CURIOUS CASE OF UNDER-COLLECTION: THE UNEXPLAINED BRAZILIAN TAX REVENUE LOSSES

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## Background

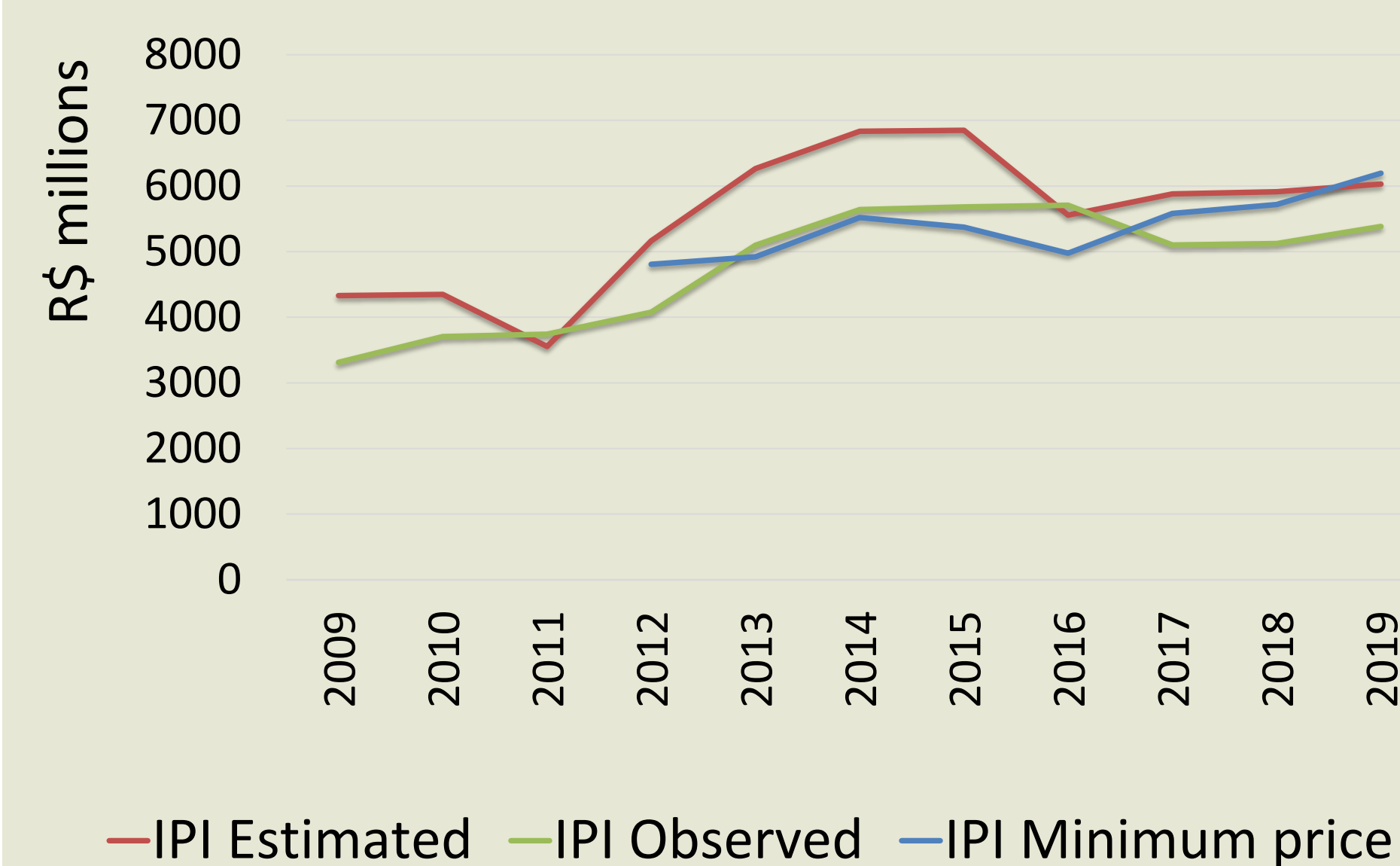
Brazil presents an exception to the uniform tobacco excise mechanism with an excise tax, IPI, and two contributions, PIS and COFINS. Recent losses in revenue collection have raised concerns that increasing tobacco taxes might further complicate this scenario given the risk of an economic recession and illicit trade. However, little analysis has been done on the components of revenue collection.

## Methods

- We analyzed the revenue collection figures using official publicly available data.
- Using the PIS-COFINS revenue collection and the fiscal rules in Brazil, we estimated the average implicit price and re-estimated the IPI collection per pack.

## Results

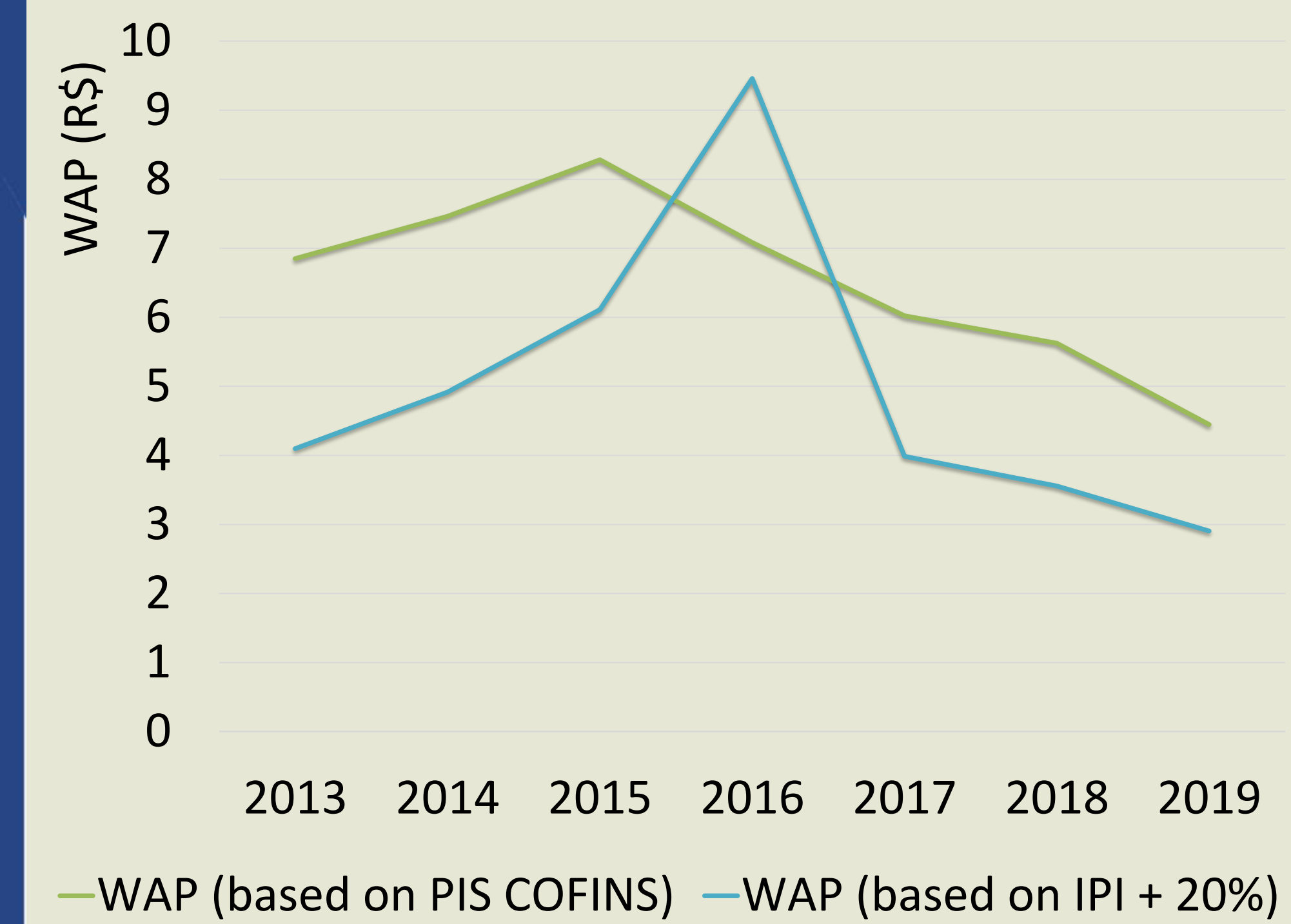
### Estimated vs observed IPI collection



Notes: Receita Federal and author's own estimations. IPI estimated using PIS-COFINS tax rates to rebuild the WAP. Minimum price estimated using Receita data and regulation.

It is unclear why **tax revenue per pack has decreased** in the past five years in Brazil, but economic recession and illicit trade are not the cause. More research is needed to understand that shortcomings of their **tax administration** and the tobacco **supply chain**.

### Estimation of the average implicit price of a pack of cigarettes (Weighted average price - WAP)



Notes: WAP obtained from fiscal rules and the observed revenue collection. Even adding an additional 20% to consider the subtractions that the industry can do on the IPI credit system, the WAP obtained using IPI collection is smaller than the WAP estimated by PIS COFINS. Based on Receita and author's own estimations.

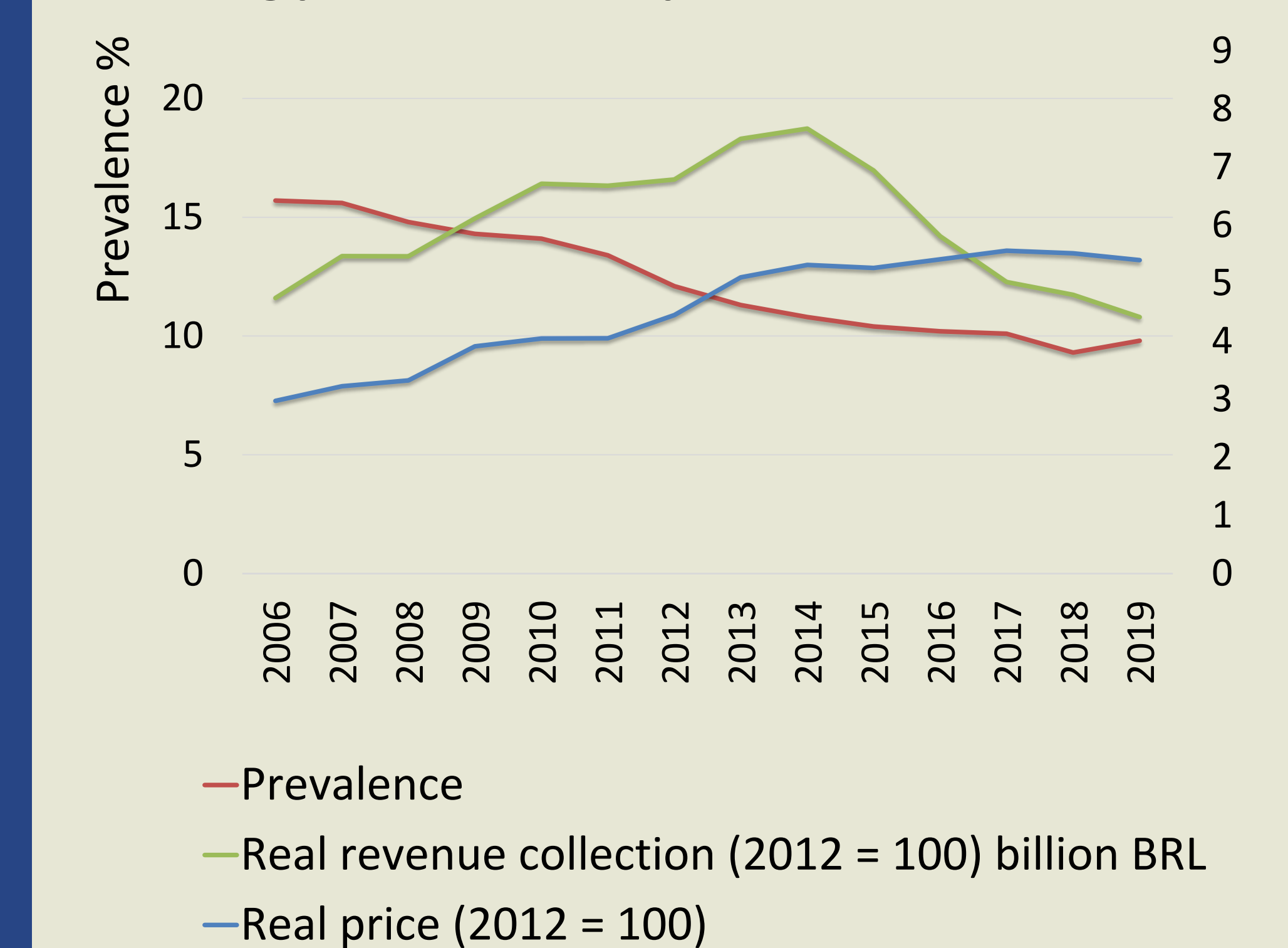
## Discussion

To regain the momentum of the 2011–2014 tobacco tax policy success, Brazil should continue to increase tax rates and minimum prices.

Understanding why the tax revenue per pack of cigarettes has decreased in Brazil will allow authorities to continue fiscal policies for tobacco products and increase control along the tobacco supply chain.

Increasing the tax administration capacity will also increase the domestic tax compliance and reduce smuggling flows.

### Smoking prevalence, real prices and revenue collection



Notes: Prevalence obtained using Vigitel– Surveillance of risk factors and protection for chronic diseases by telephone survey. Vigitel estimates frequency and socio-demographic distribution of risk factors and protection for chronic diseases in the capitals of 26 Brazilian states and the Federal District. (Ministry of Health). Revenue collection, price data (Receita) adjusted for inflation using the Consumer Price Index (Institute of Geography and Statistics - IBGE).