RESEARCH PROJECT ON TOBACCO TAXATION IN WEST AFRICA «FISCAL SOLUTIONS FOR MAXIMUM REDUCTION OF SMOKING IN WEST AFRICA»

IDRC | CRDI

# MARKET POWER OF THE TOBACCO INDUSTRY IN SENEGAL

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## INTRODUCTION

*The Economic Community of West African States (ECOWAS) adopted a new directive on the taxation of tobacco products in December 2017. The minimum rate of the ad valorem tax is now set at 50% with the removal of restrictions on the maximum rate level to be applied. A specific tax of US $ 0.02 per sticks of cigarette is associated with it. These provisions should allow a reduction in consumption through an increase in the selling prices of cigarettes. However, the success of such a reform will depend on the market power of the tobacco industry, i.e. its ability to decide whether or not to shift the tax increases on the sales price. In order to inform the political decision-making on this power that the tobacco industry can hold, CRES conducted a research entitled «Market power of the tobacco industry in Senegal». This policy brief reports the main results that emerged.*

## METHODOLOGY

Market power is measured by reference to the situation where firms compete, that is, the number is so high that each one earns only a small profit. In this case, they shift on the final sales price any variation in their manufacturing costs so as not to reduce their low profit margins. When cost variations do not translate into price changes, it is because they have preferred to reduce their profit margins. When the State increases tobacco taxes, manufacturers may decide to consider additional tax revenues as an increase in their costs and lower their profit rather than increase their selling price so as not to discourage the consumer. This ability to control prices so as not to vary the quantities of cigarettes sold is measured by the price elasticity of demand, that is, the sensitivity of demand to price changes. The residual demand method is used to determine this elasticity for the two tobacco companies in Senegal.

Data on quantities and prices of cigarettes come from the National Agency for Demography and Statistics (ANSD) and the General Directorate of Taxes and Customs (DGID) of Senegal. They cover the period 2007-2012..

## RESULTS

The results in Figure 1 show that comparing MTOA and Philip Morris to firms operating in a competitive market shows that they have market power. Indeed, if MTOA wishes to increase the demand for its products by 1%, it can do so by reducing its price by more than 11% while maintaining profit at the level that would have obtained a competing company. As for Phillip Morris, it has the possibility even to increase its price of 6% and to know an increase of its demand of 1%.

The opposite directions of price change as demand increases is explained by the difference between the categories of cigarettes produced sold by the two firms. Indeed, over the period of the study, Philip Morris produced premium brand cigarettes while MTOA production was more oriented towards cheaper brand cigarettes. Premium brand cigarettes are consumed by individuals less sensitive to price changes while cheaper brand cigarettes are purchased by the least affluent consumers.

**Figure1: MTOA and Philip Morris's ability to vary price as a result of a 1% change in demand**

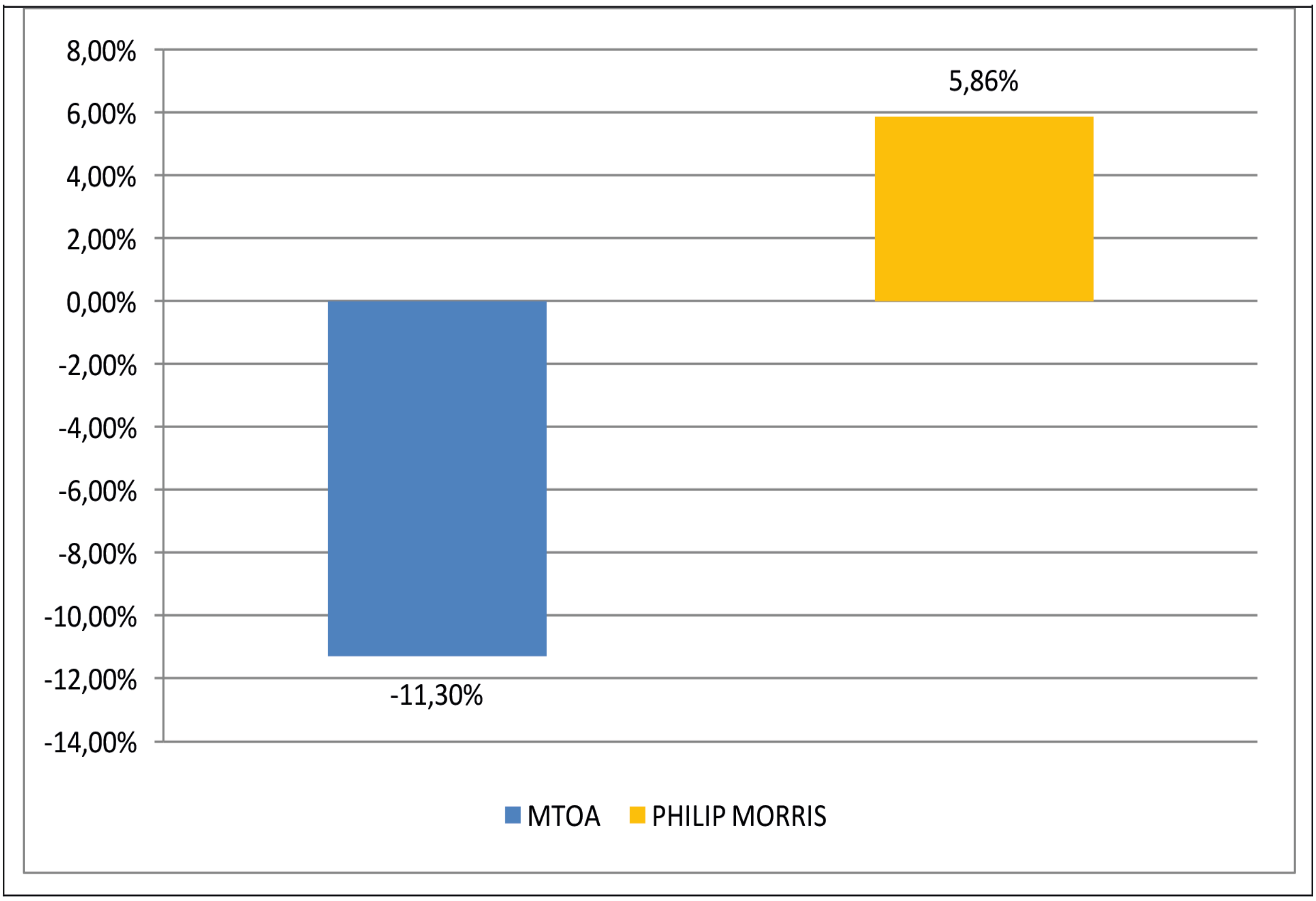
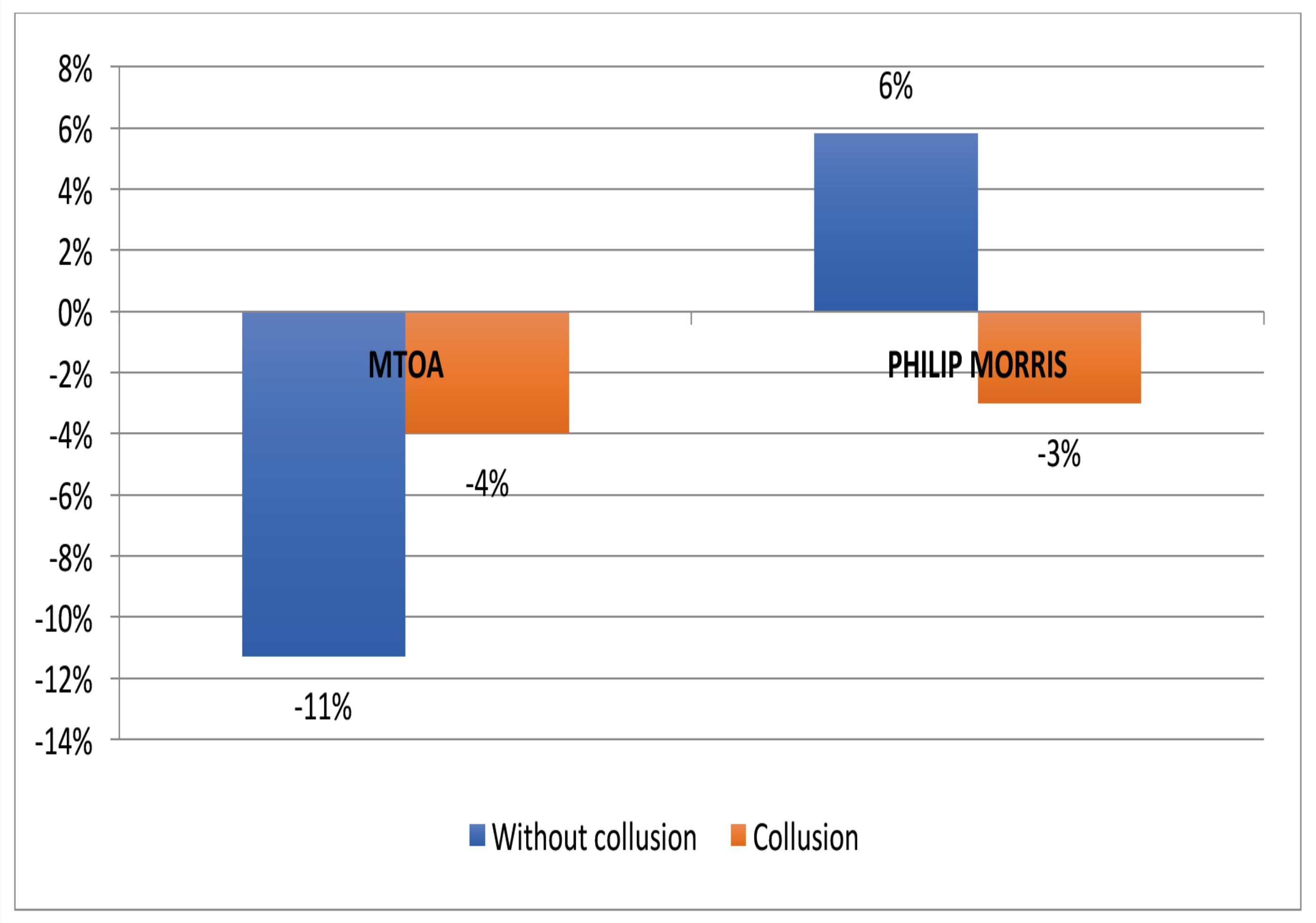



Figure 2 shows the results of the analysis of the possibility of the two companies agreeing to decide the price level. These results show that none of them has an interest in making an agreement to set prices. Indeed, if we compare the results obtained under the assumption of an agreement to that obtained without agreement, we see that the MTOA, which had the capacity to lower its price level up to 11% when the demand varies from 1 %, can only lower this price by 4%. As for Philip Morris, the cartel allows him only 3% of price decrease not to suffer a decrease of profit when the demand decreases of 1%, whereas it had the possibility of increasing its price following a decrease demand.

**Figure 2 : MTOA and Philip Morris's ability to vary price following a 1% change in demand if there is an agreement between the two companies**



## MAIN LESSONS LEARNT AND RECOMMENDATIONS

### *Main lessons*

1) The first lesson relates to the weak market power of the two tobacco factories in Senegal. Higher power could be expected given their small numbers and addiction to cigarette smoking. Indeed, the greater ability to set a price higher than that of competition is only 11%. This information reflects the possibility of using taxes to raise prices. If the factory is facing a sharp increase in taxes, it will be forced to shift them on the selling price.

2) The second lesson is that the market power is different depending on whether the manufacture produces premium brand cigarettes or produces cheaper brand cigarettes. Philip Morris producing premium brand cigarettes sees its demand increase when its price increases while it is the opposite for the MTOA that produces cheaper brand cigarettes. If the tax rates applied to cigarettes are differentiated according to their category, their consequences will be different in terms of price increases. Lower taxes on cheaper brand cigarettes provide real opportunities for the industry not to shift tax increases on retail prices.

### *Recommendations*

The results of this research and the lessons that flow from it call for the following recommendation.

- Significantly increase taxes on tobacco products to discourage consumption given that the industry's power not to shift taxes on retail price is low.

The International Development Research Center (IDRC) has funded the Consortium for Economic and Social Research (CRES) for the second phase of its research project on the taxation of tobacco products. One of the objectives of this phase was to make the diagnosis of the tax system that the ECOWAS countries apply to tobacco products.

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