

ERSA Policy Brief

October 2019


The effect of price and non-price policies on cigarette consumption in South Africa

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The health consequences of smoking are quite enormous and have been detailed on countless occasions. As a result of the elevated risk of smoking-related diseases, a smoker from early life can be expected to die about 6 years earlier than a comparable non-smoker. If current trends of tobacco consumption remain unchanged, tobacco use is expected to be the highest cause of death worldwide by 2030, accounting for more than 8 million deaths per year, with more than 80% occurring in low- and middle-income countries. Based on the Framework Convention on Tobacco Control adopted by the World Health Assembly in 2003 under the auspices of the WHO, ratified 181 countries has enhanced tobacco control policy implementation in many countries around the world. However, the progress is generally slow in some countries and for countries that have many progress it is important to understand how this affected tobacco use.

South Africa was one of the leading country in tobacco control in the developing world till about 2004. Among the various tobacco control policies, the government relied on 2 pillars; First, it used large excise taxes to reduce cigarette consumption by almost half per adult within 15 years after transition to democracy in 1994. Second, it implemented tobacco control legislations that created smoke-free places, banned tobacco advertising, promotion and sponsorship. All these have led to a decrease in smoking prevalence from 32% in early 1990s to about 20% currently. However, South Africa has slipped behind in recent years as the rest of the world has moved forward. The cigarette market fragmented substantially (changing from near monopoly to a more competitive market) after 2010, with the entrance of smaller local manufacturers attracted by the high profits of the dominant player, the British American Tobacco (BAT). With this prevailing market structure and its consequences, there is need to revisit and enforce the tobacco control policies framework.

A number of studies have empirically analyzed the relationship between real cigarette prices and demand for cigarettes. However, these studies do not take into account the combined effects of non-pricing tobacco control legislations. The present study addresses this evidence gap by estimating the combined impact of changes in price and non-pricing tobacco policies on tobacco consumption taking into consideration the role of the changing market structure. We argue in this paper for the need for a simultaneous evaluation of pricing and non-pricing tobacco-control policies in order to reduce the bias associated with the price elasticity of demand for cigarettes. Without this, price elasticity will be overstated. The study utilizes the demand model to estimate effects of price and non-price policies on cigarette consumption using annual time series data for the period 1961 to 2016. The vector error correction model (VECM) and two-stage least square estimation approaches are used. The results suggest that the price effects are larger in the long-run than in the short-run.



The results of the policy index indicate that the implementation of non-price tobacco control policies in South Africa reduces total cigarette consumption. Overall, the study demonstrates that the implementation and enforcement of anti-smoking policies would potentially lead to a reduction in cigarette smoking. Thus, it will take more than just an increase in tobacco excise taxes to continuously reduce cigarette consumption, but also a commitment to continuously enforce the non-price legislations along the tobacco tax policy.