

The association between tax structure and cigarette price variability: Findings from the International Tobacco Control Policy Evaluation (ITC) Project

Shang, C., Chaloupka, F., Fong, G.T., Thompson, M.E., & O'Connor, R.J.

Abstract

Background: Recent studies have shown that more opportunities exist for tax avoidance when cigarette excise tax structure departs from a uniform specific structure. However, the association between tax structure and cigarette price variability has not been thoroughly studied in the existing literature.

Objective: To examine how cigarette tax structure is associated with price variability. The variability of self-reported prices is measured using the ratios of differences between higher and lower prices to the median price such as the IQR-to-median ratio.

Methods: We used survey data taken from the International Tobacco Control Policy Evaluation (ITC) Project in 17 countries to conduct the analysis. Cigarette prices were derived using individual purchase information and aggregated to price variability measures for each surveyed country and wave. The effect of tax structures on price variability was estimated using Generalised Estimating Equations after adjusting for year and country attributes.

Findings: Our study provides empirical evidence of a relationship between tax structure and cigarette price variability. We find that, compared to the specific uniform tax structure, mixed uniform and tiered (specific, ad valorem or mixed) structures are associated with greater price variability ($p \leq 0.01$). Moreover, while a greater share of the specific component in total excise taxes is associated with lower price variability ($p \leq 0.05$), a tiered tax structure is associated with greater price variability ($p \leq 0.01$). The results suggest that a uniform and specific tax structure is the most effective tax structure for reducing tobacco consumption and prevalence by limiting price variability and decreasing opportunities for tax avoidance.

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