

# EFFECTS OF ALCOHOL TAX CHANGES ON MONTHLY PER CAPITA BEER CONSUMPTION AND GOVERNMENT REVENUE IN AUSTRALIA, 1989 TO 2015

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**Introduction and Aims:** Alcohol taxation can be an efficient means of raising government revenue and an effective public health strategy for reducing harmful use of alcohol. This study evaluates changes to Australian alcohol taxes since 1989 by estimating the effects on monthly per capita beer consumption and tax revenue.

**Method:** Data includes unpublished monthly domestic beer sales (litres of pure alcohol and litres of beverage), excise tax rates (\$AUD per litre of alcohol), and government excise revenue (\$AUD) obtained from the Australian Tax Office from July 1989 to December 2015, disaggregated by on- and off-trade, and light, mid and full strength beer. Autoregressive integrated moving average (ARIMA) models are used to estimate effects of a major tax change in 2000 upon beer consumption and tax revenue. Effects of taxes and prices for other beverages (wine, spirits) and seasonality are also estimated.

**Results:** Beer tax rates changed several times over the study period, particularly in 2000 with increases in excise rates for off-trade beer and discounts for on-trade and light/mid strength beer. Although total beer consumption has declined since 1989, taxes did not have a significant effect pre-2000, and post-2000 the most significant negative effects are limited to off-trade mid and full strength beer consumption and the associated excise revenues.

**Conclusions:** Higher tax rates for off-trade beer are effective in reducing consumption of these beverages, but the discounted tax rates for on-trade beer undermine overall effectiveness, and the tax rates have not been efficient in maintaining total revenue levels for government.

**Implications for Practice or Policy:** This is the first time-series analysis of how the Australian government's alcohol tax reforms in 2000 affected beer consumption and excise revenue. The findings have implications for future redesign of alcohol taxes in Australia, particularly tax policy pertaining to beer, on- and off-trade alcohol, and reduced strength alcoholic beverages.

**Disclosure of Interest Statement:** No.