

# Cigarette Affordability in Indonesia

Evan Blecher, PhD  
Senior Economist, Health Policy Centre, University of Illinois at Chicago  
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Email: [evanb@uic.edu](mailto:evanb@uic.edu)

Affordability measures the price of a product, relative to a measure of income. Affordability has grown in prominence in the tobacco control literature in recent years as global tobacco consumption has shifted from high-income to low- and middle-income countries. As many low- and middle-income countries are achieving unprecedented rates of economic growth, increases in income are making cigarettes rapidly more affordable. As such, measuring the affordability of cigarettes over time has become the optimal nominal anchor for tobacco tax policy. While affordability measures over time are very important, the comparison of affordability across a group of countries is not particularly useful since incomes vary far more substantially across countries than cigarette prices. Therefore, making between country comparisons using affordability has limited use. For between country comparisons, comparable cigarette prices measures are more important.

## Indonesia has some of the cheapest cigarettes in the world and the Asia-Pacific region

Using 2016 data from the World Health Organization's Report on the Global Tobacco Epidemic (2017), we are able to compare prices of a pack of the "most popular brand" in each country. Using this data, a pack in Indonesia costs approximately \$1.65, lower than the global average of \$3.38 and the average in the Asia-Pacific region of \$ 4.67. Furthermore, it ranks as 68<sup>th</sup> cheapest out of 187 in the world, and 10<sup>th</sup> cheapest out of 36 in the Asia Pacific region (see Figures 1 and 2).

## Cigarettes in Indonesia have become rapidly more affordable over time

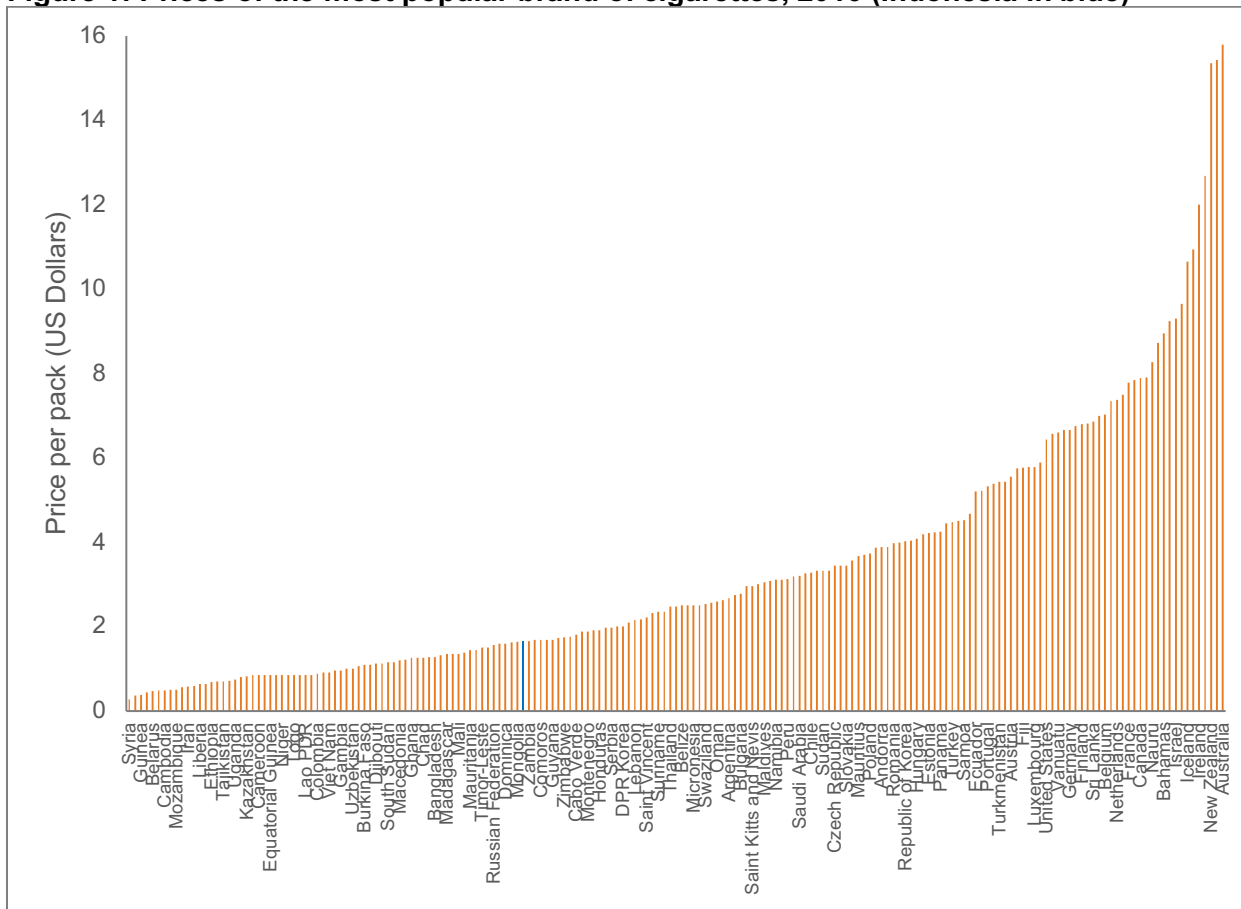
When goods and services become more affordable over time this is considered positive. More people can have access to food, education, healthcare, housing, etc. However, when goods and services which generate significant negative externalities, like cigarettes, become more affordable over time this poses significant challenges for public health. The importance of this is not lost on the WHO Framework Convention on Tobacco Control, which recommends (Guidelines for Implementation of Article 6) that countries develop tobacco tax policies in such a manner as to ensure that tobacco products become less affordable over time.

The most common method of measuring affordability over time is the Relative Income Price, which measures the percentage of annual per capita GDP required to purchase 100 the pack of the cheapest cigarette. This method was developed by Blecher and Van Walbeek (2004) and uses cigarette prices from the Economist

Intelligence Unit and income data from the World Bank. It allows for an annual time series analysis and has more historical data, but includes fewer countries than the WHO data. Using this method, cigarettes have become dramatically more affordable in Indonesia since 2000. In 2000, 8.6% of per capita GDP was required to purchase 100 packs of cigarettes in Indonesia, while by 2010, this had declined to 3.7%, meaning that cigarettes had become 56% more affordable (see Figure 3). While affordability has declined marginally since 2010, the data clearly show that dramatic action is required to ensure that cigarettes become less affordable over time.

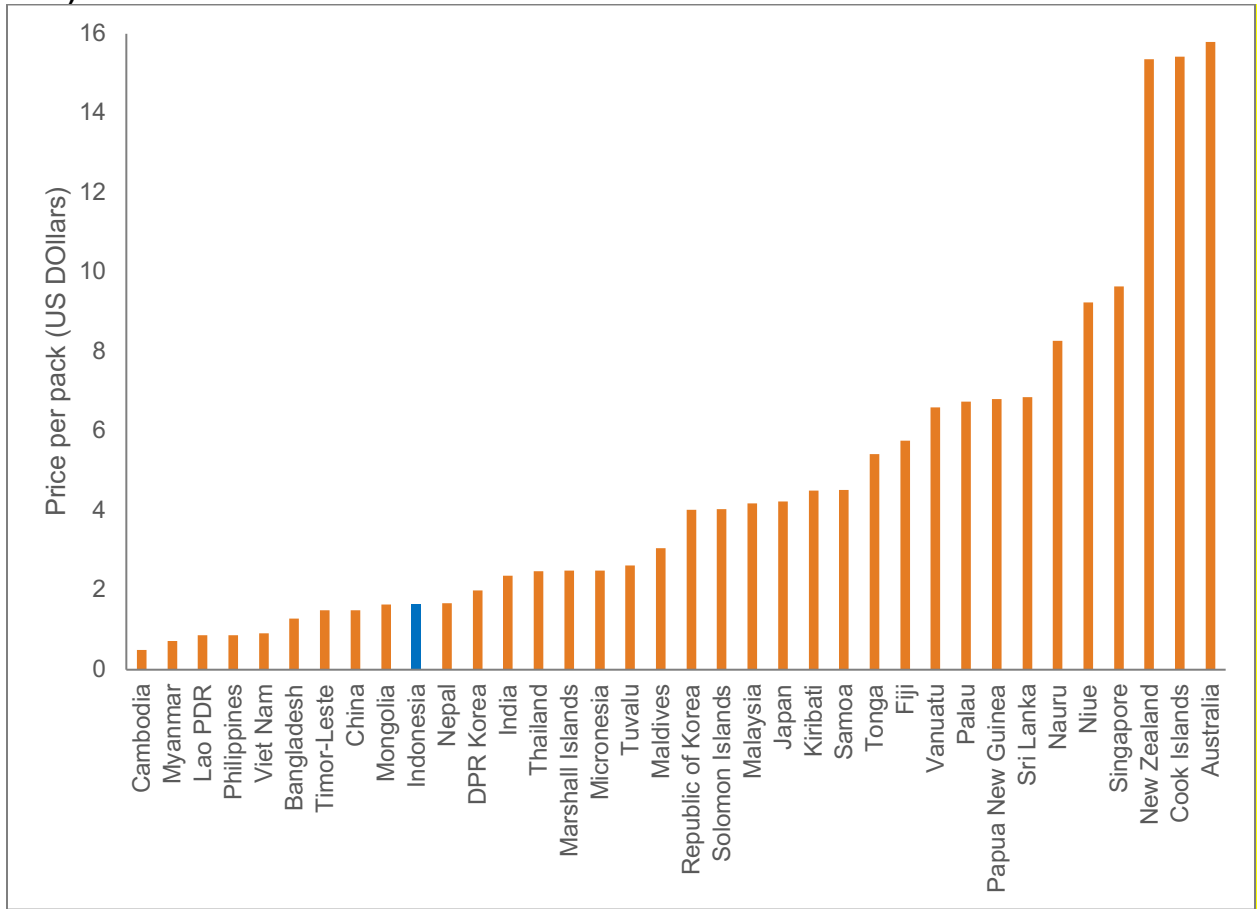
There is also a strong relationship between affordability and smoking prevalence in Indonesia. The large increase in affordability between 2000 and 2010 coincided with rapid increases in adult smoking prevalence, from 30.8% in 2001 (data not available for 2000) to 35.5% by 2010, an increase of 15%. As affordability stabilized after 2010, so did adult smoking prevalence.

**Figure 1: Prices of the most popular brand of cigarettes, 2016 (Indonesia in blue)**



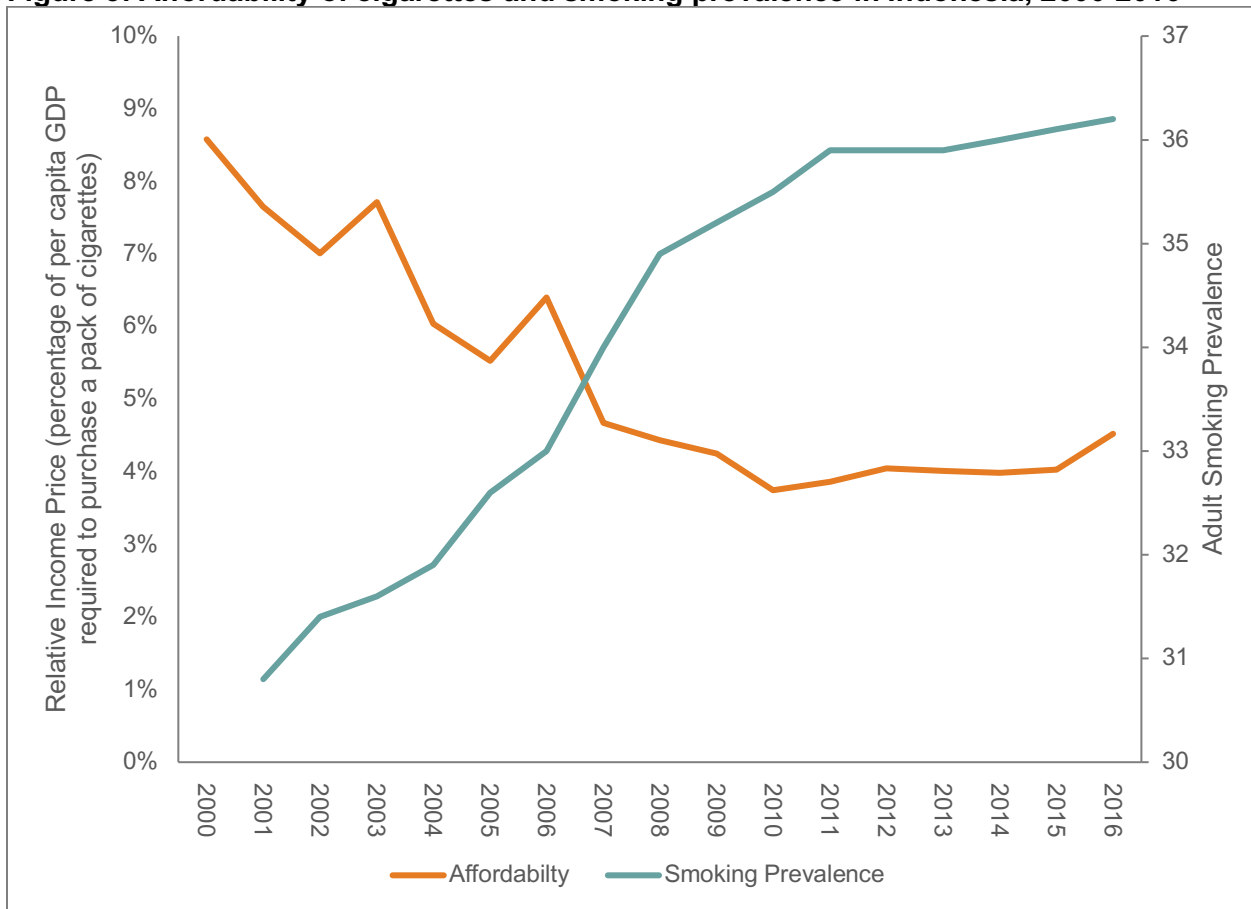
Source: WHO Report on the Global Tobacco Epidemic (2017)

**Figure 2: Prices of the most popular brand of cigarettes in the Asia Pacific region, 2016 (Indonesia in blue)**



Source: WHO Report on the Global Tobacco Epidemic (2017)

**Figure 3: Affordability of cigarettes and smoking prevalence in Indonesia, 2000-2016**



Source: affordability calculated from Economist Intelligence Unit and World Bank World Development Indicators; smoking prevalence from Euromonitor