

## POLICY BRIEF

### Cigarette Affordability in North Macedonia

#### KEY FINDINGS

- **Cigarettes remain highly affordable in North Macedonia.** Despite regular increases in excise taxes, cigarettes remain very affordable because real income growth has outpaced price increases. Rising wages have offset the impact of tax policy and kept cigarettes accessible across all income groups.
- **When cigarettes become less affordable, both overall cigarette consumption and smoking prevalence decrease, especially among low-income households.** Reductions in cigarette affordability are linked to lower smoking prevalence in the overall population, with stronger effects among low-income households. This indicates that policies that reduce affordability can have a greater impact on more vulnerable groups. Lower affordability is also associated with meaningful reductions in overall cigarette consumption.
- **Income growth is weakening the impact of current excise policy.** Recent trends show that income growth, rather than tax increases, has been the main factor shaping cigarette affordability. Without excise increases that consistently exceed the combination of real income growth and inflation, cigarettes will remain affordable and smoking rates are unlikely to decline substantially.

#### Context and Problem

North Macedonia continues to have one of the highest smoking rates in Europe, posing significant public health and economic challenges. Although cigarette excise taxes have increased regularly over the past decade, tobacco products remain highly affordable, which limits the effectiveness of fiscal policies designed to reduce smoking.

The core problem is simple: household incomes have risen faster than cigarette prices. Strong wage growth—driven by substantial increases in the minimum wage, public-sector adjustments, and broad labor market improvements—has offset the impact of tax increases and kept cigarettes accessible across all income groups, especially low-income households where the burden of tobacco use is greatest.

Reducing cigarette affordability is widely recognized as one of the most effective strategies to reduce smoking prevalence, consumption, and long-term health risks. Aligning North Macedonia with European Union (EU) and World Health Organization (WHO) standards requires a sustained decline in affordability, which can only be achieved through coordinated excise tax, pricing, and enforcement strategies.

## Data and Methodology

This policy brief summarizes evidence from a combined analysis of:

- Household Budget Survey data (2018–2022), to assess how cigarette affordability affects smoking prevalence and consumption; and
- macro-level data (2014–2023) from the State Statistical Office and Customs Administration to track long-term affordability trends and income-price dynamics.

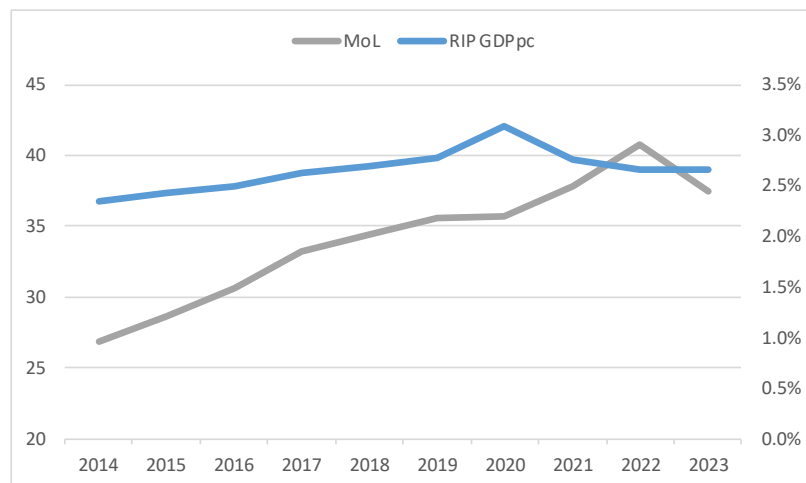
Affordability indicators such as minutes of labor (MoL), relative income price (RIP), and the ratio of income growth to cigarette price growth were examined to understand whether cigarettes have become more or less accessible over time.

## What the Data Show

### Affordability has not declined enough.

Over 2014–2023, the number of minutes of work required to purchase a cigarette pack (MoL)—increased from 26.8 minutes to 37.5 minutes per pack, suggesting a long-term decline in affordability. However, this change is modest relative to the scale of income growth. In several recent years, particularly 2021, GDP per capita and wages grew substantially faster than cigarette prices, causing affordability to increase despite ongoing excise adjustments.

**Figure 1.** Affordability indicators: RIP and MoL from 2014–2023

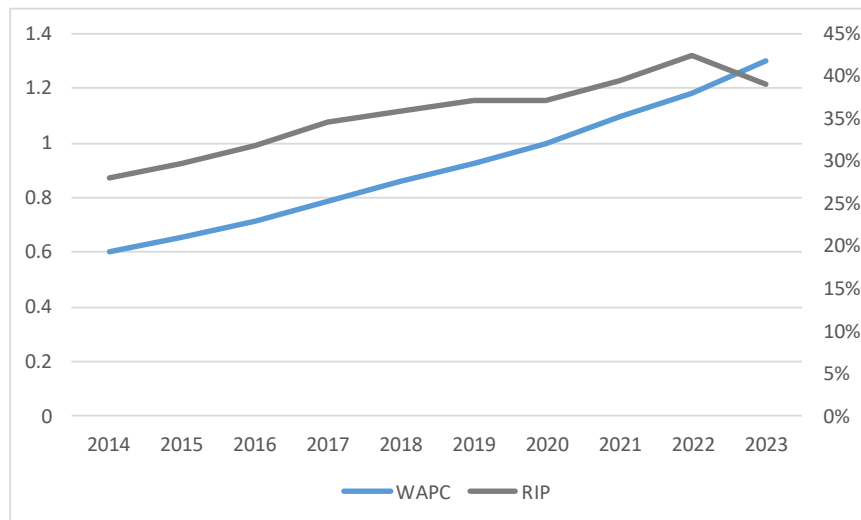


Source: stat.mk, Customs, and authors' calculations

### Income growth is outpacing price growth.

Minimum wage reforms and broader wage increases—although positive steps for the economy overall—have repeatedly outstripped the pace of excise-driven price changes. As a result, the financial burden of smoking has remained stable or even fallen for many households, especially during periods of strong economic recovery.

**Figure 2.** Level of weighted average price of cigarettes (WAPC) and RIP, 2014–2023



Source: stat.mk, Customs, and authors' calculations

### Affordability strongly influences smoking behavior.

Across population groups, changes in affordability have clear effects on both smoking participation and consumption intensity:

- Lower affordability is associated with reduced smoking prevalence, particularly among low-income and high-income households.
- Among current smokers, reductions in affordability lead to substantial reductions in the quantity smoked, with the largest impacts observed in low-income households.

Total affordability elasticities indicate that a **10% reduction in affordability leads to a 6–8% decrease in overall cigarette consumption**, depending on income group. This demonstrates that affordability is a critical determinant of tobacco use and that policy mechanisms that decrease affordability can generate meaningful population-level health gains.

### Macro-level evidence confirms long-run effects.

Sustained declines in affordability are strongly associated with long-run declines in cigarette consumption. Short-term fluctuations, such as those induced by COVID-19 income shocks or inflation, produce temporary effects, but only persistent increases in real cigarette prices relative to income can deliver durable progress in reducing tobacco use.

### Policy Implications and Recommendations

The evidence demonstrates that cigarette affordability in North Macedonia remains high because income growth continues to outpace increases in cigarette prices. As a result, current excise policy does not generate sufficient upward pressure on prices to reduce smoking

prevalence and consumption. Sustained progress requires policy measures that directly target affordability and prevent the erosion of tax effects.

First, **excise increases must consistently exceed the combination of real income growth and inflation**; otherwise, cigarettes will remain affordable and smoking rates will not decline. Establishing **clear, predictable, and sufficiently high multi-year excise trajectories**, aligned with EU Directive 2011/64/EU, is essential for ensuring real-term price increases and reducing affordability over time.

Second, **affordability indicators, not nominal prices, should guide fiscal and health policy making**. Regular monitoring of metrics such as relative income price, minutes of labor, and income-price ratios will allow authorities to adjust excise schedules when incomes rise faster than cigarette prices.

Within the existing excise structure, which includes both specific and ad valorem components, **increasing the specific component and raising the minimum excise burden** would narrow price gaps between economy and premium brands, reducing opportunities for down-trading and limiting the availability of very cheap cigarettes that undermine public health efforts.

**Key actions to reduce cigarette affordability:**

- Annual excise increases that outpace wage and inflation growth.
- A clear multi-year roadmap toward the EU minimum excise level (currently €90 per 1,000 cigarettes), while aiming beyond the minimum benchmark in line with upcoming EU revisions.

**Acknowledgment**

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