

Tobacco Control Policies and Employment

Introduction

Tobacco companies commonly argue that because they contribute to the economy by creating jobs, tobacco control policies, such as increasing tobacco taxes, would significantly hurt overall employment and the economy. However, the empirical evidence suggests the opposite. Tobacco control policies do lead to a decline in tobacco consumption and that may eventually cause a small number of jobs to be lost in the tobacco sector. However, the money saved by consumers from not using tobacco products is then spent on goods and services produced in other sectors, resulting in job gains in those sectors of the economy. Governments also spend new revenues from tax increases typically on labor intensive activities, such as services or infrastructure investments. Moreover, employment in the tobacco sector has been declining regardless of tobacco control policies. These declines are driven by the tobacco industry's strategies to use cost-saving capital intensive technologies, consolidation of production and privatization.

This policy brief discusses the impact of tobacco control policies on employment, based on trends and empirical evidence. The discussion is mainly based on the U.S. NCI and WHO 2016 Monograph, "The Economics of Tobacco and Tobacco Control".¹

Trends in Tobacco Employment

Classification of Tobacco Employment

Jobs created by the tobacco industry can be either directly, partially, or indirectly related to the tobacco sector. Jobs directly related to tobacco refer to those in tobacco farming and manufacturing. Those that are partially related to tobacco are jobs in wholesale and retail services. Indirectly related jobs or tobacco-expenditure induced employment include those in other sectors of the economy generated by a multiplier effect of spending the income earned in jobs directly linked to tobacco on other goods and services. Partially and indirectly related jobs are created by all industries, not just the tobacco industry.

Tobacco Farming and Manufacturing Jobs Limited to a Few Countries

In 2000, 65 percent of worldwide tobacco growing was concentrated in only 5 countries, and by 2016, that share has reached 71 percent (Figure 1). In its 2014 report, the International Labor Organization (ILO) estimated a significant decline in employment in most major tobacco-growing countries during the past couple decades.² The share of tobacco farming employment in total employment declined for most countries except for India and Zimbabwe (Figure 2). Similarly, more than 80 percent of worldwide tobacco manufacturing jobs were

concentrated in only 3 countries: India, Indonesia and China (Figure 3), but even in these countries, the share of tobacco manufacturing employment in total employment has been declining (Figure 4). Moreover, there has been a regional shift in employment in tobacco manufacturing from the Americas and Europe to South and East Asia and the Pacific (Figure 5). This shift in employment has been driven by various factors, such as globalization and changes in consumption from regions with declining tobacco consumption to regions where tobacco consumption has increased.

Tobacco Industry has been Cutting Jobs in Tobacco

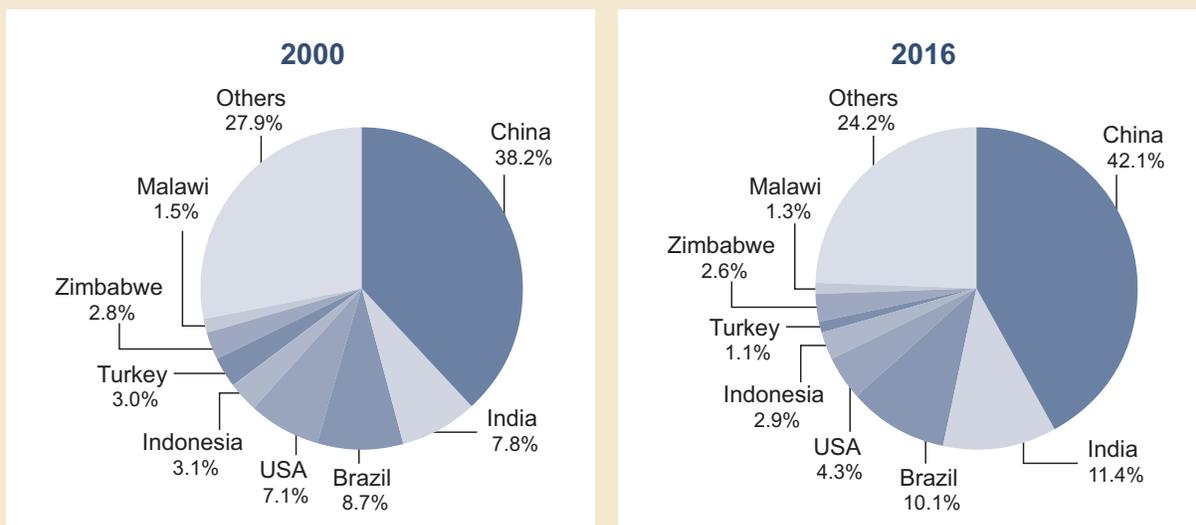
One of the major contributors to the worldwide decline in employment in tobacco growing and manufacturing has been the tobacco industry itself. The industry has increased productivity through technological modernization, and has shifted toward more capital-intensive technologies and away from labor-intensive technologies. In addition, privatization of what used to be publicly owned (and often over-

staffed) tobacco companies in many countries has resulted in a significant decline in the number of jobs in the tobacco sector. It is important to emphasize that these trends have been largely driven by the tobacco industry, which, like any profit-driven industry, has been focused on minimizing the cost of production.

Economic Presence does not Imply Economic Dependence on Tobacco Sector

While employment in tobacco may seem high in absolute terms, even in major tobacco producing countries, the share of tobacco farming employment in total employment is actually small (1.2% in Indonesia, 0.8% in China, 0.2% in India) (Figure 2). Similarly, the share of employment in tobacco manufacturing in total employment has been small and declining (0.5% in Indonesia, 0.1% in India, and 0.04% in China) (Figure 4). The value of tobacco manufacturing as percent of GDP is also estimated to be very small, especially in comparison to the value of total manufacturing, limiting the contribution of the tobacco sector to the overall economy (Figure 6).

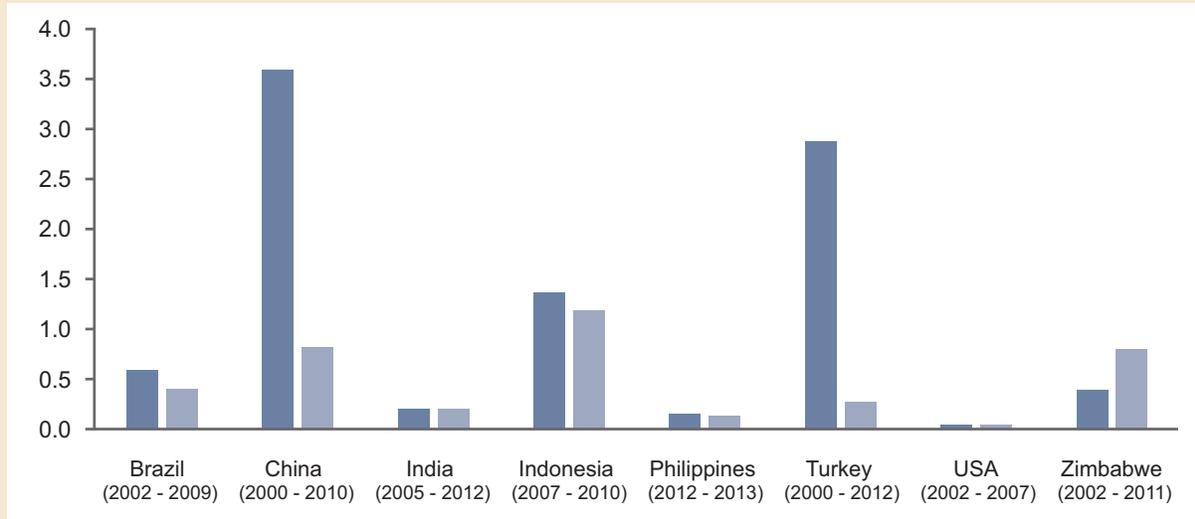
Figure 1
Major tobacco growers (% of global production)



Source: Author's calculations using data on tobacco farming by country from FAOSTAT³

Figure 2

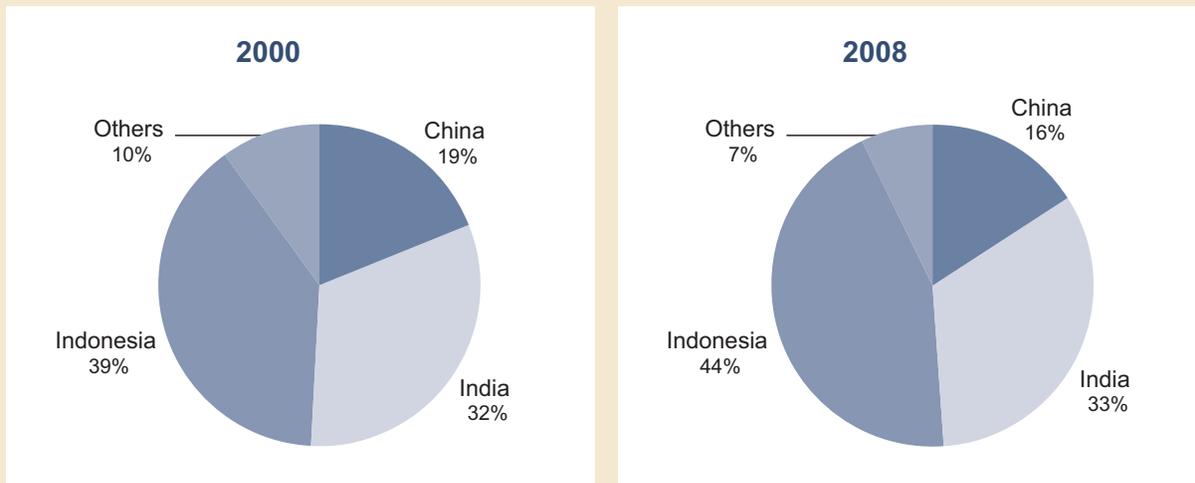
**Tobacco farming employment
(% of total employment), selected countries**



Source: Author's calculations using data from ILO 2014² (tobacco farming employment) and WDI⁴ (total employment)

Figure 3

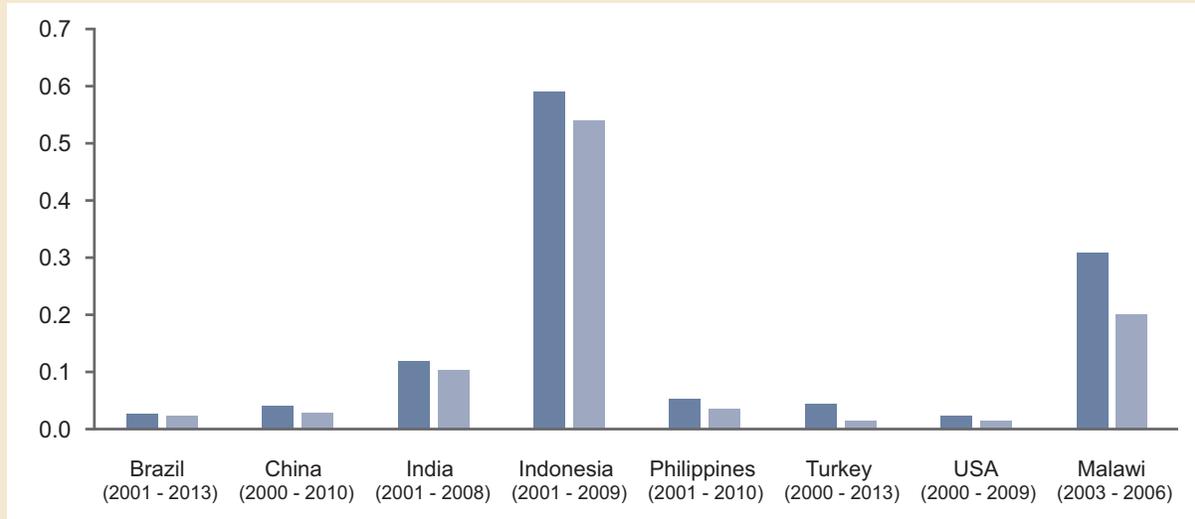
Tobacco manufacturing jobs (% of global)



Source: Author's calculations using data on tobacco farming by country from ILO 2014²

Figure 4

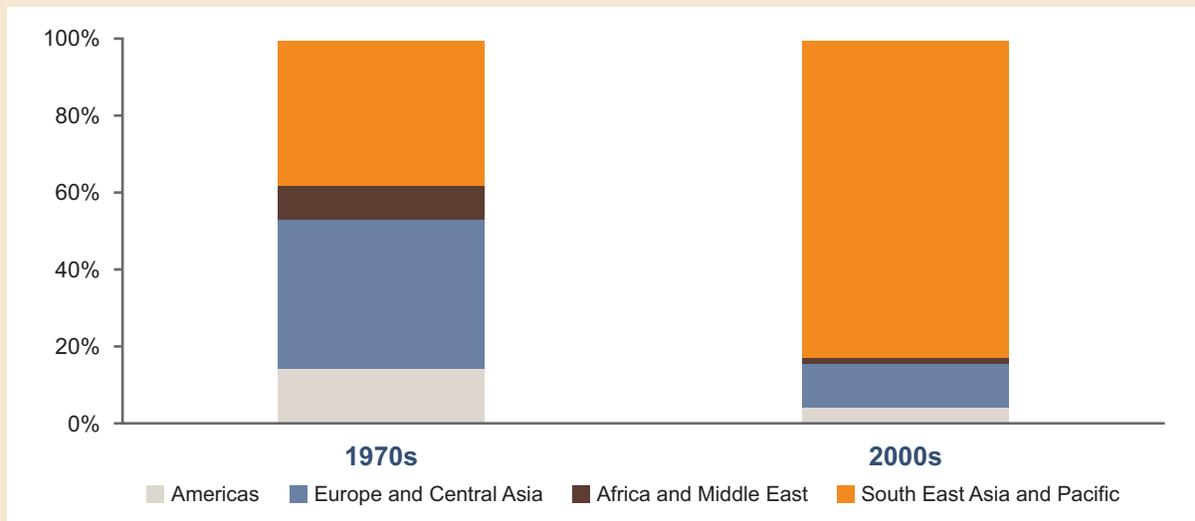
**Tobacco manufacturing employment
(% of total employment), selected countries**



Source: Author's calculations using data from ILO 2014² (tobacco manufacturing) employment and WDI⁴ (total employment)

Figure 5

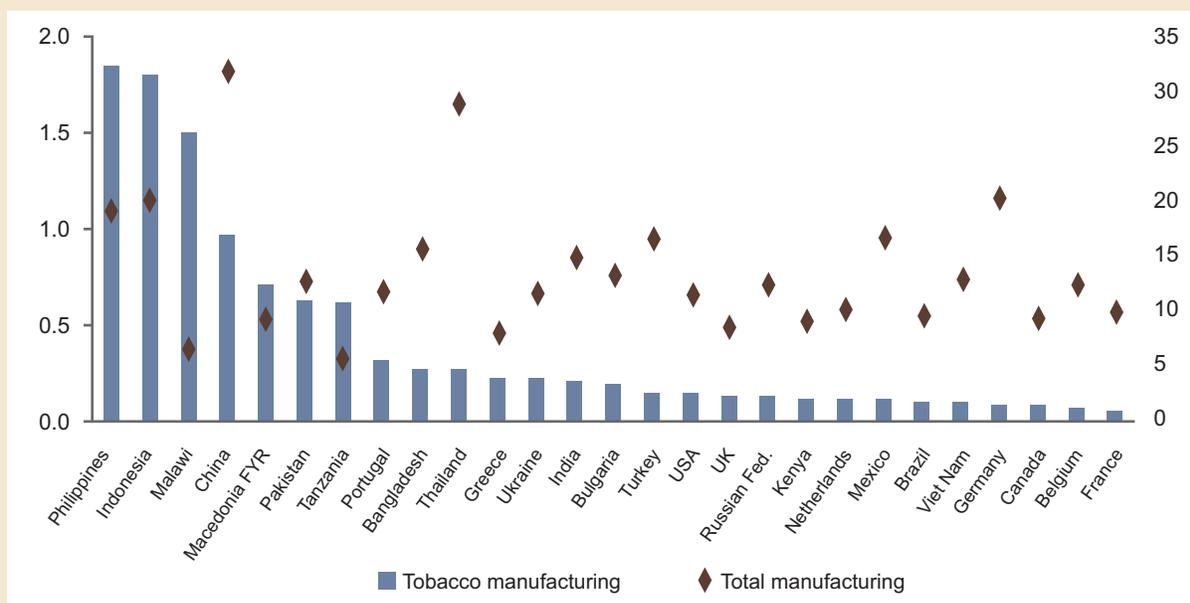
**Tobacco manufacturing employment by region
(% of total tobacco manufacturing)**



Source: Author's calculations using data from U.S NCI and WHO (2016)¹ (Table 15.1)

Figure 6

Contributions of tobacco manufacturing and total manufacturing to GDP (% of GDP)*, selected countries, 2015 (unless otherwise indicated)**



Source: Author's calculations using data from FAOSTAT³;

Notes: *Tobacco manufacturing on the left axis and total manufacturing on the right axes; **Viet Nam (2014), Macedonia and Tanzania (2013); Malawi and UK (2012); Bangladesh and Thailand (2011); China (2008); Pakistan (2006).

Measuring the Impact of Tobacco Control Policies on Employment

Defining the Gross and Net Impacts on Employment

Gross impact refers to impact on all jobs in the tobacco sector, including those directly and indirectly related to tobacco. On the other hand, net impact also includes impacts on all other sectors of the economy, as a result of reallocation of funds not spent on tobacco consumption and from government spending of new tax revenues from tobacco tax increases.

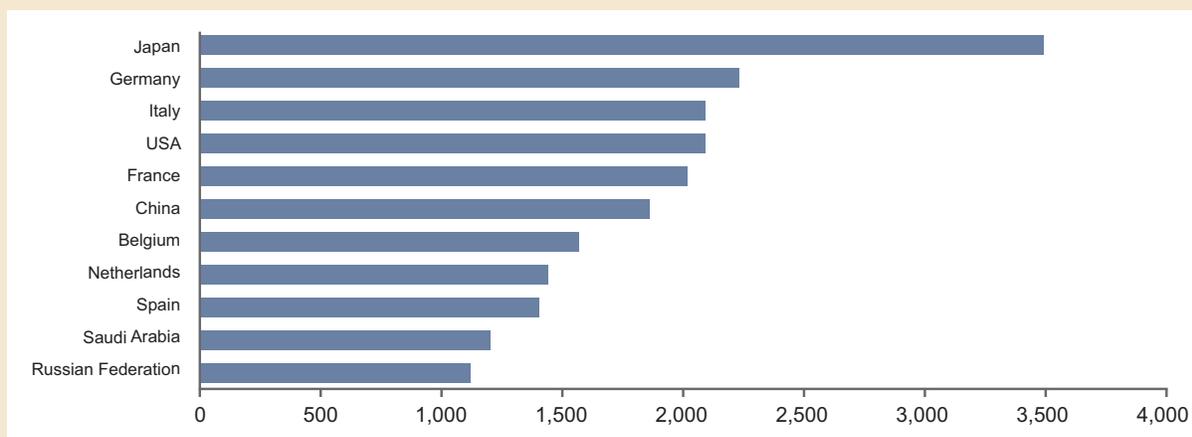
The type of tobacco trade economy in a country

There are two major factors determining the impact of tobacco control policies on

employment. One factor is the labor intensity of the tobacco sector, relative to the other sectors of the economy. The more that tobacco production is capital-intensive, the smaller the impact on employment of any tobacco control policy. The second factor is the dependence of the domestic tobacco industry on imports (Figure 7), relative to the other sectors where tobacco consumers would otherwise spend their income. The more a country's tobacco sector depends on imports relative to the rest of economy, the more it will benefit in terms of overall employment as a result of a domestic tobacco control policy. This is because some, if not all, the funds which used to be spent on tobacco consumption but were leaving the country will likely be reallocated to other goods and services that are domestically produced.

Figure 7

Major tobacco importers, 2015 (USD million)



Source: UN Comtrade⁵

Note: includes both unmanufactured and manufactured tobacco

Empirical Evidence of Impact on Employment

Tobacco Sector's Contribution to National Economies

The estimated employment multiplier of the tobacco manufacturing sector in Indonesia is around 4.7, while for tobacco farming it is around 1.1.⁶ Practically, this means that one newly created job in the tobacco sector may lead to creation of about 5 new jobs in other sectors. To put it into perspective, the estimated multipliers for some other sectors, such as air transport or rice manufacturing are above 13.5. Similarly, production and processing of certain food items, including flour and oil, have the estimated multipliers between 5.3 and 7.3. This is in line with an estimate that the contribution to GDP of tobacco manufacturing is only 0.5%, as opposed to the 22.6% contribution of overall manufacturing. Greece offers another example where the estimated multiplier for tobacco is around 2.6.

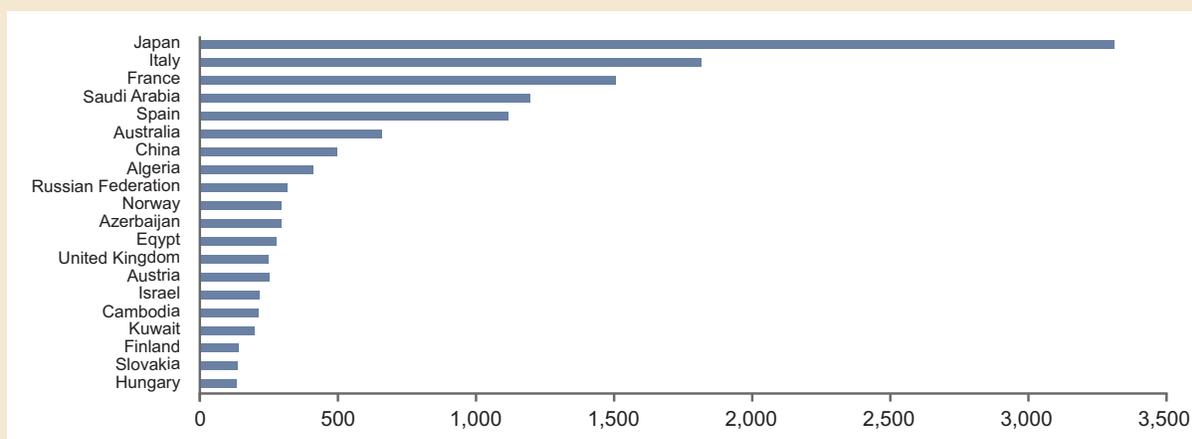
Tobacco Control Policies have either Net-positive or no Impact on Overall Employment

Most studies find that the overall number of jobs may increase as a result of tobacco control

policies, as the job losses in the tobacco sector may be offset by job gains in other sectors of the economy.^{8, 9, 10} As stated earlier, this is especially the case for countries that import more tobacco leaf or cigarettes than they produce locally. For the net-importing countries (Figure 8), as the tobacco tax increases, so does the government's revenue, which would then be spent on more labor-intensive activities, which supports job creation in those sectors. In any case, regardless of whether the estimated impact is negative or positive, the magnitude is estimated to be very small (less than 1%). The employment in net-exporting countries (of either tobacco leaf or cigarettes) (Figure 9) may be negatively impacted by global changes in tobacco control policies, should their economies be highly dependent on the tobacco sector. Among net-exporting countries, domestic tobacco control policies would not significantly impact employment. No impact or net-positive impact has also been found in countries which have specific tobacco-producing regions (e.g. USA, Canada, Zimbabwe). While these regions would experience job losses, the job gains in the non-tobacco producing regions would offset the losses.

Figure 8

Major tobacco sector net-importers, 2015 (USD million)



Source: Author's calculations (tobacco sector import – tobacco sector export) using data from UN Comtrade⁵

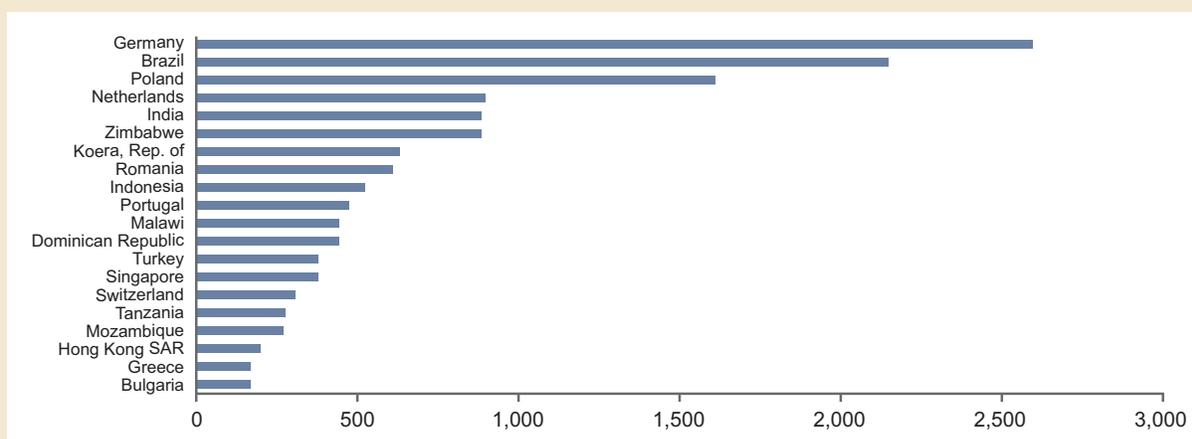
Governments can Implement Compensation Programs to Tobacco Sector Employees

The impact of tobacco control policies on tobacco sector employment can be limited by implementing compensation programs that would support farmers in diversifying to other crops and factory workers in transitioning to other sectors. Experience of some countries in

implementing such programs shows that, while they are administratively demanding, switching from tobacco to growing other crops is feasible even in regions significantly dependent on tobacco. For example, Canada launched a compensation program in 1987;¹¹ Brazil focused on three tobacco-growing regions in 2005 (Santa Cruz, Schroeder, and Santa Rosa);¹² and China piloted a program in 2008.¹³

Figure 9

Major tobacco sector net-exporters, 2015 (USD million)



Source: Author's calculations (tobacco sector export – tobacco sector import) using data from UN Comtrade⁵

Smokers are Relatively Less Productive and Earn Less than Non-smokers

There is repeated empirical evidence of the wage-gap between smokers and non-smokers.¹⁴¹⁵ The estimated wage-gap varies depending on the data and methodologies of the studies, but they range from as little as 1.5-3.5% to more than 20%.^{16, 14} Different factors have been considered as contributing to such a labor market outcome, from deteriorated health to lower productivity. Smokers also place a higher emphasis on gratification in the present (i.e., by satisfying the immediate craving for tobacco) over their future well-being, and therefore they tend to make relatively lower investments in education and a healthy lifestyle than non-smokers. As a result, the non-smokers' contribution to creating jobs in the non-tobacco sectors of the economy is potentially relatively higher than of the smokers.

Conclusion

Strong tobacco control policies are often resisted by policymakers due to a concern that they may negatively impact employment. This argument is often aggressively advanced by the tobacco industry. Therefore, empirical evidence from rigorous studies is critical to responding to this claim with strong counter arguments.

The tobacco industry creates jobs in different sectors of the economy, but global employment in both tobacco farming and manufacturing has been predominantly concentrated in just a few countries, and even there, the share of tobacco employment in total has been small and declining, due to technological advances and increased productivity largely driven by the tobacco industry itself. Hence, despite an increase in global tobacco consumption, there has been a decline in tobacco employment independent of any tobacco control policy.

The available empirical evidence, mostly based on simulations of sharp declines in consumption, shows either no or net-positive effect of tobacco tax and other tobacco control policies on overall employment, especially in net-importing countries. In the net-exporting countries, global rather than domestic tobacco control policies are more likely to have an impact on employment. Moreover, any loss of employment in the tobacco sector due to higher taxes and prices does not happen sharply and overnight. Rather, it happens gradually, allowing time for the economy to adjust to the change and reallocate resource toward other sectors.

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About Tobacconomics

Tobacconomics is a collaboration of leading researchers who have been studying the economics of tobacco control policy for nearly 30 years. The team is dedicated to helping researchers, advocates and policymakers access the latest and best research about what's working—or not working—to curb tobacco consumption and the impact it has on our economy. As a program of the University of Illinois at Chicago, Tobacconomics is not affiliated with any tobacco manufacturer. Visit www.tobacconomics.org or follow us on Twitter www.twitter.com/tobacconomics.