

This policy brief is based on a research study entitled *Macroeconomic Impacts of Tobacco Use in Pakistan* conducted by Social Policy and Development Centre (SPDC).¹

Role of Tobacco in Pakistan's Economy: *An Untold Reality*

Introduction

Pakistan ranks as one of the countries with high rates of tobacco consumption and the diseases associated with tobacco use. According to GATS (2014), almost one in five adults in the country used tobacco in some form, which translates into 25 million adults currently. Consequently, prevalence of tobacco-related diseases is also high and various estimates indicate that tobacco use is associated with more than 100,000 deaths every year in the country.² This situation requires an immediate and effective action plan to reduce not only the prevalence of tobacco consumption but also to deal with its adverse health impacts.

Tobacco taxation is widely considered as a powerful policy instrument, especially as a part of a comprehensive tobacco control strategy that includes clean indoor air policies, restrictions on marketing, etc. Effective and optimal tobacco taxation is not only used to reduce the prevalence of tobacco consumption but also to generate revenues for offsetting the adverse health implications.

Tobacco represents only 0.42 % of the total value of crop sector, and only 0.03% of agricultural employment (8,200 persons).

Cigarette production's share in industrial output is only 1.1 % and industrial employment is 0.3 %.

Despite this realization, recent reforms in tobacco taxation have been unable to fully achieve these dual objectives in Pakistan. One of the reasons may be associated with the perceived role and size of the tobacco industry in Pakistan's economy. It is argued that the tobacco industry is not only making significant contribution to large-scale manufacturing but is also creating direct and indirect employment in the country.³ High rates of tobacco taxes, therefore, would adversely affect the economy. For instance, in 2017, introduction of three-tier structure of excise duty along with reduction of the tax rate on low-priced cigarettes was strongly supported by the cigarette industry.⁴

Pakistan's Tobacco Economy: Some Facts

Pakistan is placed among the top ten raw tobacco producers in the world and was ranked 9th in 2016.⁵ Despite being one of the largest tobacco growing countries, tobacco is not a major crop in Pakistan. It accounts for only less than half (0.42) per cent of the total value of agricultural produce, 0.25% the total

area under cultivation and only 0.03% of agricultural employment (8,200 persons). Similar to agriculture, cigarette industry is also not a major contributor in the manufacturing sector and GDP. Its share in total industrial output is 1.1%. On top of that the share of cigarette industry in the industrial employment is less than a half per cent only (0.3%). Finally, the industry, instead of earning foreign exchange by capitalizing the agriculture production, causes a drain on foreign exchange as a net importer.

Economic Linkages of the Cigarette Industry

Theoretically, any sector of the economy serves three purposes. Firstly, it uses the input of other sectors of the economy in production process referred to as 'backward linkages'. Secondly, it contributes to the economy through production by using factors of production i.e. labour and capital referred to as 'value added'. Finally, it provides input to other sectors for the further value addition – "forward linkages".

The agriculture sector as a whole contributes only 5% of the total value of final production of cigarettes

The cigarette industry has backward linkages with all three-broad categorization of economic sectors i.e. agriculture, industrial sector and services. Interestingly, the largest contributor to the production of cigarette industry is not the agriculture sector. This is a reflection of the reliance of the cigarette industry on imported inputs like filters and chemicals. The agriculture sector as a whole contributes a meagre 5% of the total value of final production. Other industrial inputs including paper and packaging materials, utilities like electricity, gas and water contribute more than 7% of the final value of cigarettes production. The biggest component of the added value of the cigarette industry is the operating surplus, indicating high profitability of the industry.

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Ripple Effects: Output, Income and Employment Multipliers

The ripple effects of cigarette industry on the economy are estimated on the basis of multipliers, which indicate how much output, income and employment the cigarette industry is generating. And how much that generated output, income and employment is causing to generate further economic activities by consuming the goods and services produced by other sectors. Despite adding all possible direct and indirect ripple effects, the contribution of cigarette industry turns out to be small.

The estimates of output multiplier (2.9) indicates that a decrease of Rs 1.0 billion in the final demand for cigarettes, will decrease the output of the economy by Rs 2.9 billion, which is a relatively small impact compared to other sectors. For instance, the output multipliers of food and education are estimated to 5.4 and 4.0 respectively.

Impact on income and employment are even smaller. A reduction of Rs 1.0 billion in final demand for cigarettes will lead the income level to decline by Rs 0.385 billion while the total employment loss to the economy would be only 121 persons. Thus, the impact of cigarette industry is medium in terms of output, but small in terms of loss of income and loss of employment. Further, the impact of this sector is limited to only few sectors since the cigarette industry does not have large number of inter-linkages within the economy.

A Tobacco Free Economy: Short-term Losses & Long-term Gains

It is also important to note that the impacts discussed above are gross effects. After incorporating other effects, the analysis suggests that there would be

significant medium-long term economic gains of reducing tobacco use. The analysis shows that a 10% increase in price will lead to 11% reduction in cigarette consumption. Given the total estimated expenditure of Rs 150 billion on cigarettes⁶, this would translate into a saving of Rs 16 billion in a year. Theory suggests that the reduction in cigarette consumption would allow individuals to spend their savings on other commodities depending on their consumption preferences.

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The study conducted a simulation exercise with the assumption that individuals would spend 50 percent of the saved income (from reduced tobacco use) on food related products and 50 percent on education of their children. The results show that a Rs 16 billion reduction in consumer expenditure on cigarette will

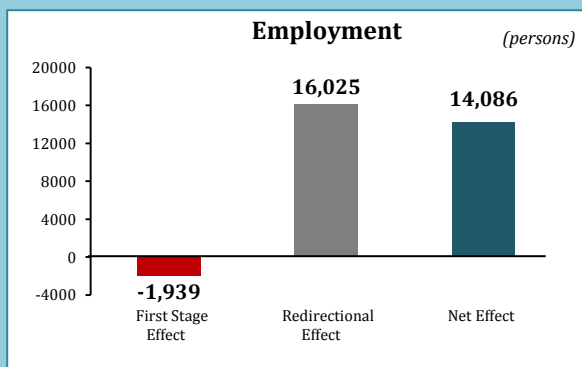
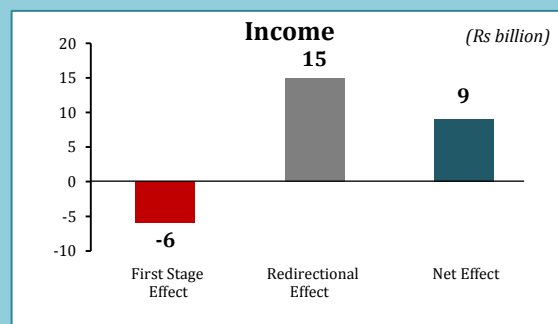
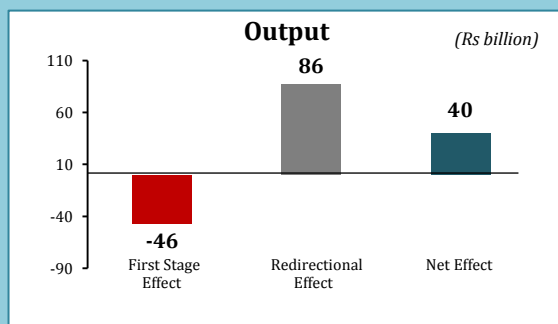
lead to a net increase of Rs 40 billion in output of the economy. Initially, reducing tobacco consumption will reduce the output of the economy by Rs 46 billion due to reduction in cigarette industry production. But consumers will spend the money that they saved from not using tobacco on other goods and services.

Reduction of Rs 16 billion in consumer expenditure on cigarette will lead to a net increase of Rs 40 billion in output of the economy.

This will lead to an increase in output by Rs 86 billion. Therefore, the net effect would be a Rs 40 billion increase in output. Similarly, effects on income and employment are also positive.

The above analyses indicate to a few short-term losses. If tobacco production is gradually stopped, it will affect the agriculture sectors by not purchasing raw tobacco. It will also affect some other industries like paper and energy, but the major burden will be

Net effects of reduction in tobacco use on the economy are positive.



on trade sector along with the financial sector. In the short-run, it will also cause a decline in the operating surpluses and unemployment to a certain extent. However, the short term effects are not so large and market forces will adjust these changes in the short to medium run. The adjustments will come over time as consumers switch their demand to other goods they prefer, but away from tobacco consumption. This leads to gains in the medium to long term. Higher cigarette prices, resulting from high taxation, will reduce the demand for cigarettes. As a result,

there will also be a decline in expenditures on illnesses caused by tobacco.

This research reveals that direct and ripple effects on income and employment of other goods and services are far higher than that of the cigarette industry. ***Thus the research provides a strong case for increasing tax rates to their optimal level for achieving the dual objectives of reducing the prevalence of tobacco use and increasing revenues which can be used for promoting public health.***

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Notes:

1. Khalida Ghaus, Wasim Saleem, Muhammad Sabir and Muhammad Asif Iqbal. Macroeconomic Impacts of Tobacco Use in Pakistan. Social Policy and Development Centre (SPDC), Karachi. *in press*
2. As cited by Burki et al (2013) based on global burden of disease data (healthmetricsandevaluation.org/gbd).
3. See for example, Majid, Ayesha et al (2017); Ali, Najabat et al (2015)
4. Jawad Rizvi, "Tobacco industry defends 3-tier FED structure for cigarettes", News report published in daily *The News*, March 31, 2018.
5. FAOSTAT, Food and Agricultural Organization of the United Nations. 2016. Available at: <http://faostat.fao.org/site/291/default.aspx>. Accessed September 12, 2018.
6. Total expenditure is estimated on the basis of total consumption of cigarettes and average weighted price in 2017-18 (consumption= production + imports - exports). Data source: Pakistan Economic Survey 2017-18.