

# Evaluation of Indonesian Economic Condition Relating to the Excise and Tax from Tobacco and Cigarettes to Health Financing in National Health Insurance Program

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**Abstract:** The Indonesian economic is largely supported by excise and taxes from tobacco and cigarettes. The number of tobacco companies in Indonesia, as well as the high consumption of cigarettes causes problems, especially in the health sector. The purpose of this study is to analyse the economic conditions of Indonesia through tobacco taxes and tobacco companies, and the evaluation of the health costs incurred in relation to medical expenses and losses caused by cigarette consumption in the National Health Insurance program. This study will also seek to provide advice in the form of an alternative. The methodology used in this research was a literature study. In 2015, based on the data from the Ministry of Financing of the Republic of Indonesia, cigarettes are the largest contributor of excise revenue at 96 percent. In addition, the results of the National Health Insurance Performance Accountability Report 2015 shows that health financing issued in the National Health Insurance program is widely used for catastrophic diseases with the most causes being due to cigarette consumption. It shows that the income derived from tobacco and cigarette excise and taxes is not proportional to the losses borne by the National Health Insurance program.

## 1 INTRODUCTION

Indonesia is one of the largest tobacco-producing countries with a good level of quality. Therefore, one of the pillars of the economic condition in Indonesia comes from tobacco excises and taxes. High tobacco production results in the high availability of tobacco. It makes people have to think about how to process it and what goods can be produced from agricultural products in the form of tobacco. The high need and demand for cigarettes for daily consumption supports the high production of cigarettes. This is further supported by the idea that smoking is a part of Indonesian culture.

Until now, cigarettes are one of the best-selling tobacco products sold in the market. Although currently, the government has been circulating cigarette packs with various images that show the negative impact caused by cigarette consumption. The demand for cigarettes, despite this, is still high. Cigarettes indirectly have two levies, namely tobacco excise and cigarette tax. Increased cigarette prices will also be one source of income for the

State, one of them by increasing the tobacco excises and cigarette taxes. The 10% increase in tobacco excises can reduce cigarette consumption by 1-3% and increase state revenues by 7-9% (Ahsan, et al, 2012).

The high consumption of cigarettes in Indonesia sooner or later will have an impact on the emergence of smoking-related diseases. The health financing system in Indonesia that started using National Health Insurance to provide health insurance for the entire population will certainly feel the impact as well. The treatment of diseases caused by cigarettes is not small, nor is it cheap. This is due to prolonged treatment period. Many diseases have one of the factors as being smoking. Although cigarettes are not the only factors in the various diseases that are responsible for the National Health Insurance program, cigarettes remain a weighting factor for many catastrophic diseases which can exacerbate the burden of health financing for National Health Insurance.

## 2 METHODS

The research method used in this paper was that of a literature study. The literature study data has been obtained from Data Riskesdas 2013, Ministry of Finance Data 2015 and 2016, National Health Insurance Performance Accountability Report 2015, and other relevant data. The researchers used a variety of sources to analyse and compare the state revenue gains derived from tobacco and cigarettes excises and taxes (economic sector) with the health financing for diseases caused by cigarette consumption (health sector). The results of the analysis found from the literature study will be developed for the formulation of alternative solutions. The formulation of alternative solutions is based on the results of the problem analysis and literature studies on similar issues obtained through journals or articles. The formulation of alternative solutions has been done by paying attention to various other factors that allow for different applications in Indonesia.

## 3 RESULTS

In 2015, based on the data from the Ministry of Finance, Republic of Indonesia, cigarettes are the largest contributor of tobacco excise revenue with a contribution of 96 percent, with a value of Rp 139.5 trillion out of a total state revenue of Rp 144.6 trillion (Kementerian Keuangan RI, 2015). However, in 2016, there was a decline in tobacco excise revenue that made tax revenue in the first quarter of 2016 down 67 percent from tax revenue in the first quarter of 2015, equivalent to Rp 7.9 trillion from Rp 24.1 trillion (Kementerian Keuangan RI, 2016). However, the financing that must be covered through the National Health Insurance program related to the impact of cigarette consumption is also high. The Riskesdas Data of 2013 stated that in the population aged 15 years and over, 64.9 percent of men and 2.1 percent of women still smoke cigarettes in 2013, with the average number of cigarettes smoked being about 12.3 cigarettes (Badan Penelitian dan Pengembangan Kesehatan KEMENKES RI, 2013). In addition, the results of the National Health Insurance Performance Accountability Report 2015 showed that health financing issued in the National Health Insurance program is widely used for catastrophic diseases with the most causes being due to cigarette consumption (Kementerian Keuangan RI, 2016).

Posts related to dilemmas and the economy because of the high excise and taxes on tobacco and cigarettes with public health aspects, mainly related to the financing of health issued by the government, has been widely studied. However, from some literature found, there has been no clear formulation of any solutions and no clear steps to address the problems. In the United States, for example, efforts have been made to address the issue of tobacco problems by increasing tobacco taxes (Bader, P., Boisclair, D., & Ferrence, R., 2011). A significant increase in tobacco tax is a highly effective tobacco control strategy and leads to significant improvements in public health (Chaloupka, F. J., Yurekli, A., & Fong, G. T., 2012). In addition to rising cigarette taxes, the United States government from 1964 to 2014 has been doing a lot of intervention to change the public image of cigarettes (Cummings, et al, 2014). US government made efforts with legislation to smoke in public places, cigarette counter-marketing campaigns in the mass media (Cummings, et al, 2014). California and Australia are aggressively implementing anti-smoking campaigns in the mass media, setting up anti-smoking school programs, SHS policies, and youth access relationships to cigarettes (Pierce, et al, 2012).

Tobacco is a supporting commodity of the Indonesian economy and an asset of the state. Tobacco can be processed into a product that has a higher selling value than cigarettes, and has a lower negative side to health compared with cigarettes. In several studies conducted on tobacco processing, one of them showed the result that tobacco can be used as raw material for making biofuel. Biofuels are solid, liquid or gaseous fuels that are produced from biomass (Webb, A. & Coates, D., 2012). The biomass or organic matter that is converted in to biofuels may include food crops, dedicated bioenergy crops, agricultural residues, wood/forestry waste and by-products, animal manure and algae (Webb, A. & Coates, D., 2012). The commercialisation of biofuel production with tobacco raw materials is considered as a potential for the long term (Maisashvili, A., L. Bryant, H., & W. Richardson, J, 2015).

## 4 DISCUSSION

The various data sets that have been presented in the previous discussion shows that the economy in Indonesia is very dependent on the income derived from the excises and taxes from tobacco and

cigarettes. The magnitude of natural products in Indonesia such as tobacco, with good quality and relatively cheaper prices, is one of the factors that make tobacco become the main attraction and one of the most popular export commodities that contributes so much revenue to the country.

The condition of people who still lack an understanding of the diversification of tobacco processed products, as well as the habit of processing tobacco into cigarettes that has existed since ancient times, makes the paradigm of society about tobacco and cigarettes form in two pathways of thought that cannot be fully separated. The habit of the previous community to smoke has carried over to the present day. Up until now, in accordance with the previous discussion, it can be seen that there are still many Indonesians who smoke. The age groups range from children to the elderly who still have a high rate of smokers within them. It is not surprising if the current trend of disease in Indonesia. This is supported by an increasingly unhealthy lifestyle among the Indonesian population.

Health financing from APBN allocated to National Health Insurance is still lacking, although Indonesia has high excises and taxes revenue from tobacco and cigarettes. The high incidence rate of catastrophic disease in the Indonesian population, especially in the population that has been registered in National Health Insurance, has resulted in increasing health financing that must be issued by the government. Catastrophic disease is a high-cost disease and the complications can be life threatening (Departemen Kesehatan RI, 2014). Smoking habits and the accidental inhalation of cigarettes smoke will increase the risk of catastrophic illnesses such as hypertension, stroke, coronary heart disease, diabetes mellitus, and others. At present, the high amount of health funding in the National Health Insurance program in the group of catastrophic illnesses is increasing. The amount of health financing required is not proportional to the amount of budget provided for the National Health Insurance program.

Tobacco is a potential commodity to be used in a variety of products that can be useful for humans, compared to just being produced into cigarettes. Many things can be explored from tobacco, one of them being biofuel. Biofuel has the potential to serve as a large-scale industry commodity. In addition, the selling value of biofuel produced is higher than that of cigarettes. It is one of the added values that can replace the mainstream cigarette price commodity of tobacco. In addition, the number of tobacco farmers

in Indonesia will also be absorbed by the harvest to become the raw material of this biofuel, if cigarette production must begin to be reduced. The application of biofuels en-masse needs to be studied in more depth for there to be better planning

Steps that can be taken by the government to be able to overcome the dilemma of the country's economic resilience and the health effects caused by cigarettes include:

1. The government may increase tobacco excises and cigarette taxes in order to reduce cigarette consumption and increase state revenues, although the long-term impact of cigarette consumption in Indonesia will also likely cause catastrophic diseases caused by cigarettes. Therefore, the amount of tax and excise needs to be calculated more thoroughly.
2. The government may allocate funds for health financing to National Health Insurance, especially for catastrophic diseases, with a scale relevant to the expenditure incurred for catastrophic diseases caused by cigarettes.
3. The government can plan alternative tobacco processing as one of the mainstay commodities besides cigarettes. It is expected that this will be able to reduce the number of cigarettes produced and still be able to sustain the stability of the Indonesian economy. If proceeding on alternative preparations in the form of biofuels, the government can start to develop biofuels on a large scale. Biofuel is a non-fossil alternative fuel, which can be made easily. The idea was made with the aim to keep room for the economic sector for tobacco commodities, while maintaining the stability of the Indonesian economy but not negatively impacting the health of the people in Indonesia.
4. The government provides regulations on smoking restrictions in public places with clear and firm sanctions.
5. Mobilize anti-smoking campaigns in the mass media, and provide education on the impacts of health, social, financial, and productivity aspects.
6. Establish school programs that are anti-smoking as well as restricting access for young people to cigarettes.
7. The government may tighten the claims financing requirements for cigarette-borne illness. Governments may create regulations that make people with catastrophic diseases seeking to make a claim have a medical test first, such as using pulse oximetry, performed at a prescribed health facility. The results of these examinations which will be the determinant of whether or not

the received claims are submitted. Before that, the government should also prepare what facilities are being targeted and the types of health checks used as well as other technical preparations. Thus, minimising the gap for cheating.

## 5 CONCLUSION

The state revenue derived from the excise and tax of tobacco and cigarettes is huge, having become one of the main sources of income for Indonesia. However, on the other hand, the health financing that must be issued by the government through the National Health Insurance program to cover the health services for diseases caused by cigarette is very large, especially as most diseases caused by cigarettes are catastrophic diseases which require prolonged maintenance and greater costs. It can be said that the current condition of the Indonesian economy between the state revenues derived from the taxes and excise of the tobacco and cigarette commodities is not comparable with the expenses to be borne to meet the needs of the state-borne illnesses by the National Health Insurance program. The ideas that can be proposed to deal with the problem contain several points, namely:

1. The government can increase tobacco and cigarette taxes.
2. The government can allocate benefits from tobacco and cigarette taxes to NHI.
3. The government can plan an alternative as the main export commodity, in addition to cigarettes.
4. The government can provides clear rules about smoking bans in public places.
5. The government can be more intensively anti-smoking campaign and education through mass media.
6. The government can creates programs that can reduce youth access to cigarettes.
7. Governments can implement short-term strategies by allocating funds for health financing in the National Health Insurance program, especially for catastrophic diseases with relevant quantities.
8. The government can tighten the claims financing requirements for cigarette-borne illnesses.

## REFERENCES

- Ahsan, A., Wiyono, N. H., & Aninditya, F. 2012. *Laporan Penelitian: Beban Konsumsi Rokok, Kebijakan Cukai, dan Pengentasan Kemiskinan*. Lembaga Demografi Fakultas Ekonomi Universitas Indonesia.
- Badan Penelitian dan Pengembangan Kesehatan KEMENKES RI. *Riset Kesehatan Dasar (RISKESDAS) 2013*. Jakarta: Kementerian Kesehatan RI.
- Bader, P., Boisclair, D., & Ferrence, R. 2011. *Effects of Tobacco Taxation and Pricing on Smoking Behavior in High Risk Populations: A Knowledge Synthesis*. Int J Environ Res Public Health. 2011; 4118–4139.
- Chaloupka, F. J., Yurekli, A., & Fong, G. T. 2012. Tobacco Taxes as a Tobacco Control Strategy. Tobacco Control Volume 21, Issue 2: 172-180. BMJ Publishing Group Limited.
- Cummings, K. M., & Proctor, R. N. 2014. *The Changing Public Image of Smoking in the United States: 1964–2014*. Cancer Epidemiol Biomarkers Prev. 2014 January ; 23(1): 32–36. doi:10.1158/1055-9965.EPI-13-0798. NIH Public Access.
- Departemen Kesehatan RI. 2014. *52.090 Kebanyakan Peserta JKN Menderita Penyakit Katastropik*.
- Kementerian Keuangan RI. 2015. *Laporan Akuntabilitas Kinerja (LAK) 2015*. Jakarta: Kementerian Keuangan RI.
- Kementerian Keuangan RI. 2016. *Laporan Akuntabilitas Kinerja (LAK) 2016*. Jakarta: Kementerian Keuangan RI.
- Kementerian Keuangan RI. 2016. *Laporan Kinerja Kementerian Keuangan 2016*. Jakarta: Kementerian Keuangan RI.
- Maisashvili, A., L. Bryant, H., & W. Richardson, J. 2015. *Economic Feasibility of Tobacco Leaves for Biofuel Production and High Value Squalene*. International Food and Agribusiness Management Review , Volume 19 Issue.
- Pierce, J. P., White, V. M., & Emery, S. L. 2012. *What public health strategies are needed to reduce smoking initiation?*. Tobacco Control Volume 21, Issue 2: 258-264. BMJ Publishing Group Limited.
- Webb, A. & Coates, D. 2012. *Biofuels and Biodiversity*. Secretariat of the Convention on Biological Diversity. Montreal, Technical Series No. 65, 69 pages.