

2018

FISCAL COSTS OF SMOKING IN MALAYSIA



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Acknowledgement & Disclaimer

We would like to thank Universiti Putra Malaysia and the National Cancer Society Malaysia for sharing their data, research analysis and findings with us during the course of writing this report. This report is intended to highlight fiscal issues so to nudge the government to do the necessary data collection and studies to review its tobacco control policies.

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Executive Summary

This report discloses the tax revenues from tobacco smoking and provides estimates to the fiscal costs of smoking for the year 2018.

The main findings and conclusions are as follows:

- The estimate tax revenues from tobacco smoking are RM4.15 billion for the year 2018.
- The estimate of total fiscal costs of tobacco smoking is RM5.60 billion. From this estimate, the direct fiscal costs (public healthcare) portion is RM3.72 billion and indirect costs (other lost fiscal revenues related to lost productivity) portion is RM1.88 billion.
- The total tax revenues are short by RM1.45 billion compared to the total fiscal costs of tobacco smoking.
- In addition, we note the estimate total economic costs of tobacco smoking to be RM 34.53 billion.

This paper recommends the following for the consideration of the government:

- The government focus on data gathering and produce a comprehensive socio-economic paper and optimal tax level to reduce and curb tobacco smoking.
- An annual incremental rate of 2% tax to retail price rate, arriving at a maximum rate of 66% by 2025; conditional to government deploying best efforts to eradicate illicit cigarettes.
- That we look closely at Singapore as a model to comprehensively combat tobacco smoking.

1.0 Introduction

- 1.1 Tobacco smoking not only kills but is also a major economic burden. It reduces our nation's productivity and consumes significant government health expenditure. Based on best available data from the Ministry of Health and Malaysian NGO sources, this paper computes estimates of the fiscal and economic costs of tobacco smoking in Malaysia. The numbers presented in this report are our best estimates and we have included our assumptions and methodology in this paper.
- 1.2 The primary purpose of this paper is to compare the fiscal costs versus the fiscal revenues from tobacco smoking. We set about to answer a basic question; is the current tax revenues on tobacco smoking sufficient to cover the fiscal costs?
- 1.3 The secondary purpose of this paper is to nudge the government to start gathering more complete health data and produce a definitive socio-economic report on tobacco smoking. By commissioning such a report, the government will then be able to formulate data driven policies to address the issue of tobacco smoking and to fully comply with the guidelines of the World Health Organisation Framework Convention on Tobacco Control (FCTC).
- 1.4 Our numbers deal with both direct and indirect costs of tobacco smoking. For direct costs, we estimate both public and private healthcare costs of treating tobacco smoking related illnesses. For indirect costs, we looked at lost productivity of smokers and second-hand smokers. We also compute the indirect loss of fiscal revenues from smokers and second hand smokers in terms of personal income tax, corporate tax and consumption tax.

1.5 There is a pressing need for the government to recognize the fiscal burden of tobacco smoking on our economy. The paper also urges the government to take a closer look at Singapore as a successful case study and to overall work towards the guidelines recommended by the FCTC.

2.0 Contextual Background & Key Data

- 2.1 According to the National Health Morbidity Survey 2015, about five million or 22.8% of the Malaysian population aged 15 and above are smokers. From this number, some 43.9% of male are smokers and 1.8% of female are smokers. More worrying is the tobacco smoking rate among youth, between the age of 13 and 15, who are most likely to become regular smokers, is recorded at 36.6%.
- 2.2 The highest numbers of smokers are found in Sabah followed by Kedah and Pahang. The three states of Malacca, Johor and Penang, who have adopted Smoke-free City projects, consistently have lower number of smokers than the national average.
- 2.3 Rural areas have higher number of smokers compared to urban areas, and the peak age of smokers are between 35 to 39 years old. Malays/Bumiputras are the largest group of smokers at 25% of the population (a staggering one in four is a smoker), followed by Indians at 16.5% and Chinese at 14.2%.
- 2.4 Tobacco smoking is one of the leading causes of preventable death in Malaysia, accounting for some 20,000 deaths annually. By the year 2020, if no drastic action is taken, the annual death rate from tobacco smoking is projected to hit 30,000.
- 2.5 Recent data also indicates that 92% of Malaysian male lung cancer patients have a significant history of tobacco smoking. In 2017, more than 15% of total hospitalizations were affiliated to tobacco smoking -related illness.

3.0 Tobacco Smoking Tax Revenues & Tobacco Companies

3.1 The Malaysian government for Budget 2018 estimated import and excise duties on cigarettes and tobacco at RM4.15 billion. See Table 1 below. At the time writing of this paper, we are uncertain about the estimated total yearly revenue from SST on cigarettes (we use a conservative 5% rate), but we also note that the retail prices of cigarettes went up to 1% to 4% on 1st September 2018.

INDIRECT TAX	60,495	26.9	63,856	26.6	3,361	5.6
1.3 EXPORT DUTY	1,222	0.5	1,400	0.6	178	14.6
Crude Oil	900	0.4	1,062	0.4	162	18.0
Crude Palm Oil	320	0.1	336	0.1	16	5.0
Others	2	0.0	2	0.0	0	0.0
1.4 IMPORT DUTY	3,008	1.3	3,022	1.3	14	0.5
Alcoholic Beverages	134	0.1	135	0.1	1	0.7
Cigarettes	37	0.0	37	0.0	0	0.0
Motor Vehicles	591	0.3	594	0.2	3	0.5
Others	2,246	1.0	2,256	0.9	10	0.5
1.5 EXCISE DUTIES	11,806	5.2	12,334	5.1	528	4.5
Alcoholic Beverages	1,922	0.9	2,008	0.8	86	4.5
Cigarettes	3,941	1.7	4,117	1.7	176	4.5
Motor Vehicles	5,931	2.6	6,196	2.6	265	4.5
Others	12	0.0	13	0.0	1	8.3

Table 1

Source: Malaysia Federal Government; Estimates of Federal Government's Revenue for the Year 2018

3.2 We note that the average pack of cigarette is priced at RM15.50, of which the tax burden is RM8. This means that the current tax burden as a percentage of retail price is 52%.

3.3 However we note that the numbers published by Southeast Asia Tobacco Control Alliance in its 2017 report "SEATCA Tobacco Tax Index" suggests that the tax burden in 2016 is higher at 53% to 58% of retail price. See Table 2 below.

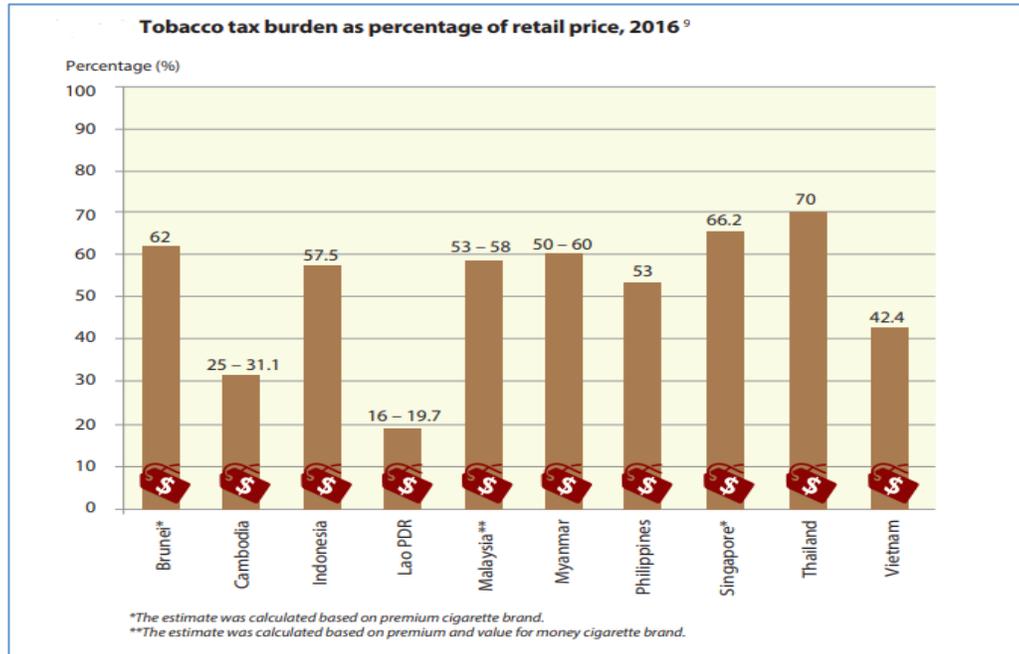


Table 2

Source: SEATCA Tobacco Tax Index 2017

- 3.4 Nevertheless, we note that the recommended tax to retail price recommended by the FCTC has yet to be met in Malaysia. The FCTC recommends taxes to be increased up to 75% of retail price of cigarette to effectively reduce cigarette consumption as well as prevent tobacco smoking initiation.
- 3.5 The core argument for increasing the tax burden on tobacco products is rooted in idea that by increasing taxes on cigarettes, manufactures will pass the cost on to consumers through higher retail prices and that will cause a decrease in the consumption of cigarettes. The academics we spoke to at Universiti Putra Malaysia (UPM), supporting the FCTC recommendations, argue that the increase in the excise tax in November 2015 has proven to be an effective economic tool in reducing tobacco smoking prevalence and generating higher revenue for the government.

- 3.6 Tobacco companies in Malaysia however argue that the higher excise duties implemented in November 2015, did not deter the overall cigarette consumption nor significantly increased government revenue. Citing the Illicit Cigarette Study by Nielsen Malaysia, the overall impact of a higher excise duty pushed more and more smokers to switch from legal cigarettes to smuggled cigarettes.
- 3.7 The tobacco companies further asserted that the higher excise tax of November 2015 drove up the growth of illicit cigarette consumption from 33.7% in 2014 to 55.6% in 2017. This is a massive market share gain by illegal cigarettes of 21.9% in three years. They further argue that the cigarette smuggling is depriving the government of RM5 billion in lost custom duties revenue yearly.
- 3.8 However, these numbers are disputed by UPM. According to researchers in UPM, the illicit cigarette market is estimated to have increased only by 11% after the hike in excise tax in November 2015. UPM argues that while illicit cigarettes are a serious problem, the matter has been exaggerated. They further opine that the solution to illegal smuggling is a question of better and corrupt free enforcement by government agencies, not by a reduction or stay on excise duty rates.
- 3.9 Furthermore, while the narratives from the tobacco companies are interesting, we note that the fiscal data do not fully support all their assertions. The higher excise duties introduced in November 2015, has in fact increased revenue for the federal government. The financial data from the Federal Government for the period 2015, 2016, 2017 (revised estimate) and 2018 (estimate) paints a steady growth in government revenue. For the period of 2015 to 2016, excise duties grew by RM236 million or 7.1%, for the period 2016 to 2017 the revised estimate growth was RM387 million or 10.9% and for the period 2017 to 2018, the projected growth of RM176 million or 4.5%. See table 3 below.

	2015	2016	2017 (Revised estimate)	2018 (Estimate)
Excise Duty on Cigarettes (RM million)	3,318	3,554	3,941	4,117
YOY Revenue Growth (RM million)		236	387	176
YOY Revenue Growth Rate (%)		7.1	10.9	4.5

Table 3

Source: Malaysia Federal Government; Estimates of Federal Government's Revenue for the Years 2016, 2017 and 2018

4.0 Counting the Costs of Tobacco smoking

- 4.1 There are two conflicting reported data on the direct public healthcare costs of tobacco smoking. Direct costs refer to healthcare and treatment costs of tobacco smoking and also the development expenditure costs to build health infrastructure to cope with future tobacco smokers.
- 4.2 A 2007 Bernama article reported that RM3.5 billion was consumed from the Ministry of Health (MoH) budget to treat tobacco smoking related illnesses. The then 2006 MoH's operational budget was RM9.54 billion. If the amount is correct, then tobacco smoking related illnesses consumed 37% of the operational budget of MoH.
- 4.3 A second reported number is found in the National Health Morbidity Survey 2015, stating that a sum of RM2.92 billion was consumed from MoH in 2015. In 2015, the operational budget of MoH was RM21.42 billion. This means that tobacco smoking related illnesses consumed 14% of the MoH operational budget.
- 4.4 For the purposes of this paper, we have chosen the more conservative percentage of 14% rather than the higher 37%. Since the allocated MoH operational budget for 2018 is RM24.74 billion, we thus estimate for 2018, the direct operational fiscal costs of tobacco smoking to be RM3.46 billion.
- 4.5 On the MoH's development spending, we use the same 14% as a guide. For 2018, the government allocated RM1.85 billion for development expenditure; hence the sum of RM0.26 billion is added to arrive at a grand total of RM3.72 billion as direct fiscal costs.
- 4.6 To calculate the direct economic costs of tobacco smoking, we consider both the public and private sector healthcare costs of tobacco smoking. The accepted rule of thumb is the private sector cost of healthcare is the same as that of the public

sector's. Therefore the total direct economic costs of tobacco smoking is estimated as RM3.72 billion x 2 = RM7.44 billion for 2018.

- 4.7 Now we move on to the more complicated matter of calculating indirect costs of tobacco smoking. Indirect economic cost of tobacco smoking is a measure of total productivity lost. However, the fiscal revenue lost to tobacco smoking, is broken into three categories; personal income tax, corporate tax and consumption tax.
- 4.8 According to the government data, the annual average productivity value as at 2018, is RM81,039 per worker. Using an annual number of work days at 235 (261 work days minus 26 paid holidays), the productivity value per day is therefore RM345. The number of smokers is estimated at 5 million, of which we estimate 95% to be employed, hence the number of workers who are smokers is estimated at 4.75 million. Of this number, the percentage of secondhand smokers affected are 10% of the base smokers number, hence the total number of affected workers (smokers plus second hand smokers) are 5.22 million. The number of estimated loss of working days per person, per year due to tobacco smoking (smoke breaks - 2 days, illnesses – 8 days, shortened life expectancy – 4 days) is 14 days per year. Therefore the total 2018 productivity loss is calculated as such: $RM345 \times 14 \text{ days} \times 5.22 \text{ million workers/smokers} = RM25.21 \text{ billion}$.
- 4.9 Now we calculate the indirect fiscal loss of revenue to the government. A drop in overall productivity of smokers will have an impact on promotions, bonuses, salary increments and corporate earnings. Depressed wages in turn will impact consumption taxes such as SST.
- 4.10 To compute the loss of personal income tax, we take the following inputs; (a) an average personal income tax rate of 20%, (b) monthly wages of RM3,610 x 12

months, (c) 6% (lost of 14 days out of 235 work days), (d) 5.22 million workers/smokers and (e) 15% being the actual working population that pays personal income tax. The total loss of personal income tax due to tobacco smoking is calculated as such: $20\% \times \text{RM}3,610 \times 12 \text{ months} \times 6\% \times 5.22 \text{ million} \times 15\% = \text{RM}407 \text{ million}$. We believe that this loss will manifest itself in lower performance reviews of smokers, which will result in lower bonuses, salary increments and lower likelihood for promotions compared to a non-smoker of the same calibre.

4.11 As for the corporate tax loss due to tobacco smoking, we take the total productivity loss multiplied by the corporate tax rate of 24% and the profit margin of 20% derived from productivity. Assuming that 80% of profitable companies pay their taxes, the amount of corporate tax loss is therefore $\text{RM}25.21 \text{ billion} \times 24\% \times 20\% \times 80\% = \text{RM}968 \text{ million}$.

4.12 To compute the loss of consumption tax, we take (a) the lost productivity of $\text{RM}25.21 \text{ billion}$, (b) an assumption that labour accounts for 50% of revenue spent (30% for other costs and 20% profit), (c) an assumption that workers spend 80% of their income, (d) a conservative 5% SST rate. The total SST loss will be: $\text{RM}25.21 \text{ billion} \times 50\% \times 80\% \times 5\% = \text{RM}504.2 \text{ million}$

4.13 The total of indirect fiscal costs is $\text{RM}1.88 \text{ billion}$. When added to direct fiscal costs, the final total of direct and indirect fiscal costs of tobacco smoking for 2018 is estimated at $\text{RM}5.60 \text{ billion}$. The total cost of tobacco smoking to the Malaysian economy is $\text{RM}34.53 \text{ billion}$. See Table 4 below for the breakdown by categories.

Fiscal Costs		Economic Costs	
Direct (MoH budget)	Indirect (loss of personal income, corporate tax and SST)	Total Fiscal Costs	Loss of productivity
RM3.72 billion	RM1.88 billion	RM5.60 billion	RM25.21 billion
Total Fiscal Cost		Private Health Care Direct Costs	
RM5.60 billion		RM3.72 billion	
Total Fiscal Revenue Collected		Total Economic Costs	
RM4.15 billion		RM34.53 billion	

5.0 Optimal Tax Considerations

- 5.1 While we acknowledge the use of the Laffer curve to arrive at an optimal rate of taxation, this paper does not dwell deeply into the matter except for the following observations. Firstly, academics and experts of the Laffer curve believe that the maximum tax rate should not be exceed 70%; thereafter it will be counterproductive to revenue collection. Secondly, the subject matter of this paper is tobacco smoking and this is not matter of a public good product. Hence an extra nudge of 5% to the 75% tax rate as recommended by the FCTC, may be justifiable.
- 5.2 This paper focuses on a simple question: are the current tax revenues on tobacco smoking sufficient to cover the fiscal costs? The answer is, no. Our estimates show that some RM1.45 billion is short from tax revenues to cover the fiscal costs.
- 5.3 The current tax burden as a percentage of retail price is 52%, yielding RM4.15 billion. An increase of RM1.45 billion to RM5.60 billion in revenue will require a tax rate of 70% to retail price. Coincidentally, this rate is the maximum recommended rate of the Laffer curve.
- 5.4 If we employ instead, the 75% tax rate as recommended by FCTC, the tax revenues would yield RM6 billion.
- 5.5 Another good guide on effective tax policy is to look at the Singapore model. Singapore in 2017, used a tax rate of 66.2% to retail price as an effective tool to reduce tobacco smoking. In February 2018, the government increased the rate by another 10%. We will be monitoring closely the impact of this new tax regime. The following section better describes the Singapore approach, which we can learn and adapt to the Malaysian context.

- 5.6 After considering all the issues and calculations, this paper ventures to recommend the following progressive increase of the tax rate to retail price. Starting from 2019, a 54% tax rate is suggested with a subsequent 2% increase annually up to a maximum of 66%. This will mean that by 2025, we should arrive at an optimal tax rate of 66% to retail price. This 7-year staggered approach will allow producers, retailers and consumers to plan for the eventual sunset on the industry. However, we would also impose one fundamental condition to this scheduled tax increases; that is the government must in return, increase efforts and produce evidence that it is reducing consumption of illicit cigarettes.
- 5.7 Lastly, an overall review should then take place in 2025 to assess the tax effectiveness of the anti-tobacco smoking campaign. If the campaign shows good progress as per the Singapore experience, then a final tax ramp up to 75% of retail price should be undertaken in 2026 to finally deliver the end game to tobacco smoking in Malaysia.

6.0 Jurisdictional Scan - Singapore

- 6.1 Singapore is notably one of the leading nations in tobacco control efforts in the world and Southeast Asia. The country has committed itself to protect public health and reduce tobacco consumption since the 1970s, before it became a party to FCTC. It has one of the world's lowest tobacco smoking prevalence rate at 13% as of 2017.
- 6.2 Despite the low level of tobacco smoking in Singapore, the Ministry of Finance recently announced a 10% increase in excise tax for all tobacco products February 2018. The increase in excise tax will now raise the price of per stick from S\$ 38.8 cents to S\$ 42.7 cents.
- 6.3 What has made Singapore's approach to tobacco control particularly successful is its multi-pronged strategies. Under this strategy, Singapore has not only increased excise tax on tobacco products but also introduced others measures that include but not limited to legislation and taxation, restrictions on tobacco advertising, public education, partnerships and capacity building and tobacco smoking cessation services. The multi-faceted strategy employed by Singapore is cited as one of the best practices because of its efficiency to complement its fiscal measure with a conducive social environment to offer support to quit tobacco and strict enforcement.
- 6.4 Singapore recognizes the need to provide structured behavioural support to help smokers quit permanently and prevent them from succumbing to other types of addiction to maximize long term productivity gain. The tobacco smoking cessation programs are funded by earmarking of government revenue through the increase on excise tax.

6.5 Another measure that contributes to Singapore’s effective tobacco control policies is its non-interference policy directed at tobacco industry. The government has enforced a strict code of conduct that prevents government bodies from giving preferential treatment to tobacco industries. In addition, the results of any consultations between the two parties are published on government websites.

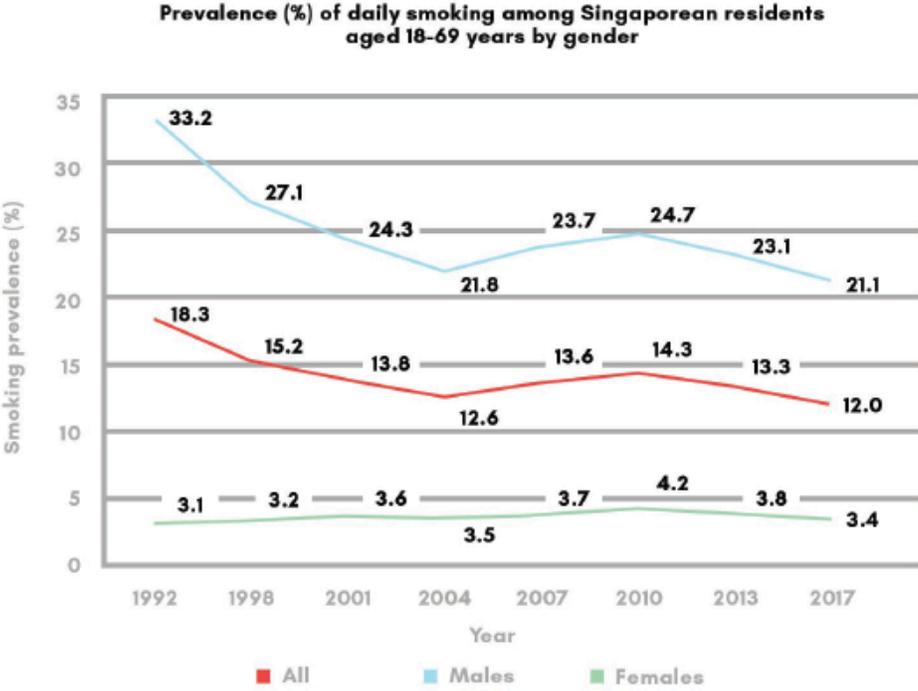


Figure 1

The figure indicates decreases in tobacco smoking prevalence over the years among Singaporeans between the ages 18 and 69 as the excise duty of cigarettes increases

Source: National Health Survey (NHS), 1998, 2004 & 2010; National Health Surveillance Survey (NHSS) 2001, 2007, 2013; National Population Health Survey 2017 Pilot Study

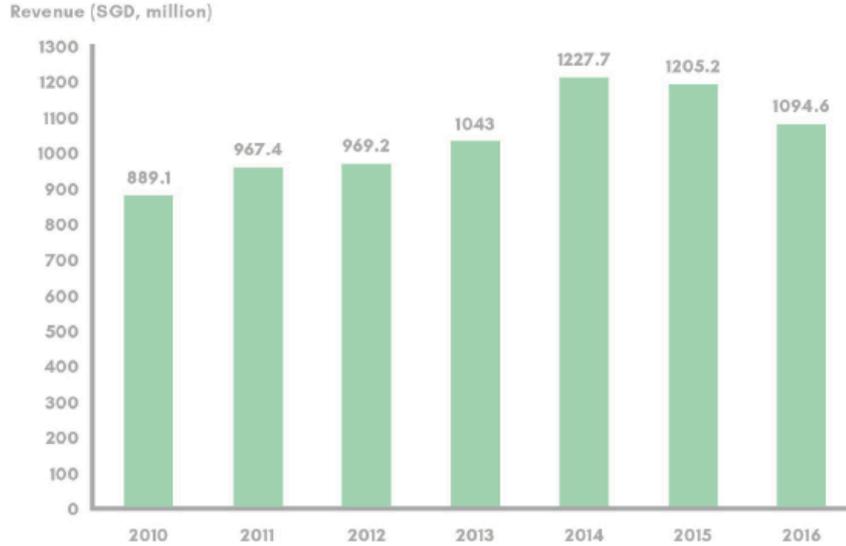


Figure 2

The figure shows the increase in revenue from tobacco customs and excise duties, from 2010 to 2016, in million dollars

Source: Singapore Customs, Ministry of Finance, 2017

<https://www.customs.gov.sg/news-and-media/publications/statistics>

6.6 The model practiced by Singapore is proven to be highly effective in reducing tobacco smoking and increasing government revenue. Due to the geographical and cultural proximity between Malaysia and Singapore, this report proposes to emulate lessons gained from Singapore’s experiences within the local context. This is not to homogenize the experiences of both countries but rather to adopt effective practices within the national context and restraints.

7.0 Conclusion & Recommendation

- 7.1 This paper concludes that tobacco smoking causes significant fiscal costs of RM5.60 billion and economic costs of RM34.53 billion to Malaysia. We therefore advocate a higher but staggered tax revenue model to support other tobacco control measures.
- 7.2 Price is an important factor of cigarette consumption both in the short and long run. We believe a hike in prices will encourage smokers to quit and prevent tobacco smoking initiation.
- 7.3 We are concerned of the rise in the illicit cigarette trade but we believe the numbers are somewhat controllable and can be resolved by better enforcement efforts and not by reducing taxes.
- 7.4 To that end, we recommend starting from 2019, a 54% tax rate with a subsequent 2% increase annually up to a maximum of 66%. This will mean that by 2025, we should arrive at an optimal tax rate of 66% to retail price.

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