

ILLICIT CIGARETTES IN INDONESIA

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■ Background

Illicit tobacco trade in Indonesia consists of illegal domestically produced cigarettes as well as cigarettes smuggled from abroad. This is recognised as an increasing problem that has not been quantified.

Methods *Two methods were used to estimate Indonesia's illicit cigarette trade in terms of both volume and revenue loss. Method 1 estimates illicit trade as the discrepancy between, domestic consumption minus legal sales of cigarettes. Method 2 estimates illicit imports as the differences between exports to, and official imports into Indonesia.*

Data *The period of analysis is 1995-2006 using data from the Indonesian Central Board and Statistics and Excise and Customs, and US Department of Agriculture.*

■ Results

Estimates from method 1 suggest illicit trade from illegal domestic cigarette production and net smuggling out of Indonesia, amounted to 43 billion sticks in 1995, falling to 10 billion by 2001. During 2002-2004 increased illegal domestic production of cigarettes together with possibly some net smuggling in, amounted to 23-31 billion sticks per year or 10-14% of total cigarette consumption. The resultant loss of government revenue ranged from Rp 2.7 Trillion to Rp 3.5 trillion (US\$ 327-409 million) for 2002-2004, or between 9% and 13% of total tobacco excise revenue. There were considerable trade discrepancies between the values of imports and exports of cigarettes as reported by Indonesia and by the origin or destination countries. However official imports into Indonesia are low, and to the extent that their difference from exports to Indonesia are an indication of smuggling into the country, they represented only Rp270 to Rp 350 million or some 0.001% of total cigarette revenue.

■ Conclusion

The large part of illicit cigarette trade in Indonesia appears to be from illicit domestic production. In order to reduce both illegal cigarette production and smuggling, the government should increase resources to enforce the laws concerning the excise system and impose stronger penalties, especially as related to illicit cigarette production,.

Under Article 15 of the Framework Convention for Tobacco Control (FCTC)¹, all governments ratifying the FCTC are required to address smuggling by collecting data about cross border trade in tobacco products; enacting or strengthening legislation against illicit trade in tobacco; destroying counterfeit and contraband tobacco; adopting and implementing measures to monitor and control the distribution of tobacco products; and adopting measures to enable the confiscation of proceeds derived from smuggling.

Illicit cigarette trade includes smuggled cigarettes and illegal domestic production. It has been suggested by the Indonesian Ministry of Health that smuggling is around 5% of the domestic sales². This relatively low estimate reflects the Indonesian preference for kreteks above white cigarettes, which predominate in the illicit cigarette trade, and makes smuggling into Indonesia unprofitable. Some 90% of Indonesian smokers smoke kretek, a tobacco and clove cigarette produced almost exclusively in Indonesia, often illegally. The low price of kreteks may have led to Indonesia being an exporter of smuggled cigarettes, especially to the main destination countries of Indonesian migrant workers including Malaysia, Hong Kong, Taiwan, Korea, and the Middle East. Bootlegging is unlikely as Indonesia's tobacco tax rate is low compared to neighboring countries except Cambodia. Smuggling white (tobacco only) cigarettes into Indonesia has been identified as potentially profitable; a BAT-commissioned study reported a preference among Indonesian consumers for contraband versions of international brand cigarettes³ (ref). Currently this is relatively low in Indonesia for the reasons given above.

Illicit cigarette trade undermines tobacco control policies by lowering price and encouraging consumption particularly by the young and poor⁴ and denies governments excise revenue. Indonesia's complicated tobacco excise tax system creates incentives for smokers to 'trade down' to cheaper illicit cigarettes, and in Indonesia illicit trade is recognised also as an obstacle to fairly sharing tobacco excise revenue (Damiri, 2008). This study aims to estimate the magnitude of the illicit trade and associated revenue losses, and so to provide the government with the rationale to improve law enforcement

■ The Tobacco Tax System in Indonesia

Indonesia has a highly complex tobacco tax system under which tobacco tax is determined by the type of cigarette, the scale and method of production and the retail price range, but at 38% on average, is relatively low compared to other ASEAN countries (70% in Thailand, 49 – 57% in Malaysia, 46 – 49% in Philippines and 45% in Vietnam). Cambodia is the only country with a lower rate at 20%. Roll Your Own (RYO) cigarettes are not taxed if used for personal consumption. Many studies have shown that increasing tobacco excise results in a win win solution, by increasing revenue and decreasing consumption; a 10% increase in tobacco excise tax would result in a 4% reduction in consumption and a 7 -9% increase in tobacco excise revenue⁵(Barber et al 2008).

■ Illegal domestic consumption in Indonesia.

There are six types of illegal domestic cigarettes in Indonesia; unpacked cigarettes, or packed without excise stamps, with fake stamps, stamps belonging to other cigarette companies, misallocated or used excise stamps⁶ Damiri 2008. The penalty for selling or providing illicit cigarette is between a one and five year jail sentence and/or a fine of two to ten times the excise value that should have been paid. There is however little information on the Indonesia's illicit cigarette trade, and this study aims to investigate its magnitude and impact on government revenue.

Methodology

Merriman 7 identified five broad approaches to estimating tobacco smuggling:

(1) interviewing experts; (2) observing smokers and their habits; (3) comparing legal tobacco sales with consumption estimated from surveys; (4) monitoring tobacco trade; (5) using econometric analyses. In this study estimates are based on approaches 1, 3 and 4, by first discussing with the relevant government officials; comparing tax paid sales data with survey consumption data; comparing data on exports to Indonesia with data on its imports. In a further study to complement this work, a survey of domestic illicit cigarette production is being conducted. The two methods to estimate illicit consumption are:

Method 1

This method estimates the magnitude of illicit cigarettes as consumption from surveys minus legal sales.

The consumption of legal cigarettes $C = P + (M - X)$ 1

Where C is the consumption of cigarettes based on survey data, P is the domestic legal production, M is imports of cigarettes into Indonesia, X is exports of cigarettes from Indonesia

If $C - P \neq (M - X)$ 2

Then illicit cigarette trade is taking place

If $C - P > (M - X)$ 3

Then illicit cigarettes exists (as net smuggling in and/or illegal domestic cigarettes production)

If $C - P < (M - X)$ 4

Then illicit cigarettes exist (as net smuggling out and/or under reporting of consumption)

Method 2

This second method measures trade discrepancies between data on exports from the country of origin and data on imports from the importing country. A discrepancy may indicate the level of smuggling into the country; it may also reflect lags between exports and imports, administration, value (FOB and CIF), recording period, change in exchange rates, or diversion to third countries. We use the results from this method to complement results from method 1. Method 2 is based on matching trade data between Indonesia and its trading partners using the following formulae (Merriman 2002).

It has been suggested that smuggling exists when:

$Q_m DC \neq Q_x CO$ or $Q_x DC \neq Q_m CD$

Where $Q_m DC$ is the quantity imported in sticks by the domestic country

$Q_x CO$ is the quantity exported in sticks by country of origin

Smuggling into Indonesia is likely if $Q_m DC < Q_x CO$ 5

We did not measure smuggling out by this method.

Loss of government revenue due to illicit cigarettes

Smuggling Out

Revenue loss of export tax = quantity of cigarettes smuggled out X unit export tax 7

Smuggling In

Revenue loss of import duty = quantity of cigarettes smuggled in X unit import duty Value + excise tax 8

Illegal Domestic Cigarette production

Government revenue loss due to illegal domestic cigarettes=

Quantity of illegal domestic cigarette production X (excise Tax + value added tax) 9

Total government revenue loss of illicitly produced cigarettes is

Lost revenue from smuggled cigarettes + Lost revenue from illegal domestic cigarettes 10

Sources of data:

The period of analysis for which data is available is 1995-2004. Cigarette consumption C is calculated from raw data from the National Socio-Economic Survey (Central Board of Statistic, 1995, 2001 and 2004). Cigarette production data were obtained from the Directorate General of Excise and Custom based on excise Stamps Orders. Imports and exports data were obtained from the US Department of Agriculture Data and the Indonesian Directorate General of Excise and Customs (also available for 2005 and 2006). Smoking prevalence and average daily cigarette consumption were obtained from the National Socio-Economic Survey (Susenas)

for the years 1995, 2001 and 2004. Population estimates are based on population projections of the Indonesia Central Board of Statistics (CBS).

The value of sales of illegal domestically produced cigarettes and smuggled cigarettes was calculated from its volume times the median regulated retail sales price (Harga Jual Eceran, HJE). To get the average price, the median price for each cigarette type was weighted by its proportion of cigarette production for each year. To estimate revenue loss from smuggling for imported cigarettes, the median price of each cigarette type was weighted by its proportion to cigarette import for the corresponding years.

■ Results

Method 1 Estimation of consumption from the survey method

Legal sales equal to production plus imports minus exports (P+M-X) are presented in Table 1 together with consumption (smoking prevalence, times average daily cigarette consumption, times the adult population, times 365 which measures what smokers say they smoke).

Production

Legal sales figures are presented in Table 2 together with consumption to obtain a measure of the illicit cigarettes trade in Indonesia. Table 2 indicates that cigarette sales exceeded cigarette consumption until 2002-2004. From 2002-2004 legal cigarette sales (column 5) slightly decreased while consumption continued to increase as population increased (column 1). Cigarette production increased again in 2005.

Production of Manufactured Tobacco by Type

The production of white cigarettes (tobacco only) decreased from 12% to 6%, of total production between 1995 and 2006; the proportion of kretek (tobacco and clove cigarette) increased from 85% to 91% production over the same period.¹

Trends in cigarette exports and imports by value: data available 1995-2004

During the whole period of the study Indonesia was a net exporter of cigarettes although exports accounted for only 2% to 3% of domestic cigarette production and fluctuated from 21 billion in 1995 to 15 billion sticks in 2004 (Barber et al, 2008). Legal imports were much lower even than exports and fluctuated between 294 million in 1995 and 20 million sticks in 2004 (Table 2 columns 6 and 7).

Estimation of the illicit cigarettes (method 1)

The estimated consumption (sales) of cigarettes in Indonesia based on USDA trade data (Table 2 column 8) was higher than the estimated consumption based on the survey data (Table 2 column 1) by an amount ranging from 30% in 1995 to 5% in 2001. This may have reflected smuggling of cigarettes out of Indonesia and possibly to under reporting of consumption. From 2002 to 2004, the opposite occurred and estimated consumption based on the survey data was higher than that based on trade data (USDA). This might be explained by net smuggling in (likely to be small for the reasons given above), and increased domestic illegal cigarette production, exceeding continuing smuggling out of Indonesia.

Method 1 estimates (sensitivity analysis assuming different levels of under reporting)

Table 3 gives the estimates of illicit trade assuming different levels of under reporting. It is common experience for survey participants to underreport both whether and how much they smoke. For this reason we have carried out a sensitivity analysis assuming levels of underreporting of 0, 5, 10 and 15% (our judgement is that 0% underreporting is the most likely because smoking behaviour is generally socially acceptable in Indonesia). Estimates for equation 2, 3 and 4 are given below in Table 3 indicating the level of illicit cigarette trade. From 2002 to 2004 the situation reversed with estimated consumption exceeding legal sales, indicating probably the major surge in illegal cigarette domestic production, and net smuggling into Indonesia together of 23 – 31 billion sticks or 10 – 14 % of total consumption and around 10-15% of legal production.

Estimates of illicit cigarette trade using Method 2

To assess cigarette smuggling using the second method, we pair Indonesia's exports from other economies in the world, with data on imports to Indonesia. We present data for the ten economies with the highest export-import discrepancy with Indonesia. Table 6 presents the export import discrepancy between cigarette imports as recorded by Indonesia and exports as recorded by Indonesia's exporting partners. From 2003 to 2004 under-invoicing is seen to make up the majority (96% to 99%) of Indonesia cigarette imports, rising from 16.8 million to 24.4 million sticks in 2004 (then to 25.2 in 2006). However as legal imports are low, this represents only 0.01 % of cigarette consumption.

¹ The number of cigarette production is based on the excise stamp orders of cigarette manufacturers to custom and excise

Government Revenue Loss due to Illicit Trade in Cigarettes (2002-4)

Government revenue loss due to the illicit trade is estimated using equations 7-10 above. Tax rates differ for domestic production and imports, so it is necessary to ascribe illegal trade to each of these two categories. (The experience of the Directorate General of Customs and Excise officer is that illegal domestic production far exceeds cigarette smuggling, and illicit home production is easy.) We assume that illegal production falls between 50 and 100% of the illegal trade.

The estimates of revenue loss use the average excise tax of 31 percent of retail price and zero underreporting and no smuggling out since 2002 (if smuggling out, there would be a corresponding extra loss of export tax); value added tax of 8.4 percent between 2002 and 2004.

Revenue loss was calculated for 2002-2004 (the positive discrepancy) between legal sales and consumption. Import duty for cigarettes is 15 percent (Barber et al 2008) and the average excise tax for imported cigarettes is higher than for domestically produced cigarettes. Based on the Ministry of Finance Decree in 2002, the excise tax for imported cigarettes ranged from 20 to 40 percent. Since it is mostly white cigarettes imported to Indonesia (Barber et al 2008), the high excise rate of 40 percent was used for calculation to estimate the loss of revenue due to smuggling in.

Based on advice from Excise and Custom officers, Scenario 5 [90:10] was preferred and using this scenario, the government revenue loss from illicit cigarettes for 2002-2004 would be Rp 2.7 to 3.5 Trillion {US \$ 270-350 Million}. The trend of revenue loss follows the trend of illicit cigarettes; it by increased in 2003 and decreased in 2004.

Revenue loss as a percentage of tobacco excise revenue

The revenue loss from illegal domestically produced cigarettes {Rp 2.4 - 3.1 Trillion} in 2002-2004, was between 8% and 12% of the total cigarette tax revenue {Rp 22,882 to Rp 28,636 Trillion}, and the loss from net smuggling may be Rp 300 million or 0.9 to 1.3% of total tobacco revenue in the same period. This gives an overall revenue loss of 9% – 13% (Table 5).

Discussion

Estimating illicit trade is by its nature an imprecise science, so we have used three of Merriman's proposed methods to triangulate our estimates. Talking to customs and excise officials identified that they experienced illegal production as the main problems of the illegal trade. The method of differences between legal domestic sales and estimates of consumption from surveys provided our main results for estimating illicit trade. However this suffers from the problem that the estimate may be confounded by consumer under reporting. However the latter is not thought to be a significant problem for Indonesia as smoking is generally socially acceptable. The method of differences in exports as recorded by exporting countries and the corresponding recorded imports may give good estimates of global smuggling, but has limitations for an individual country. In the case of Indonesia, the latter estimates were useful to confirm the opinions of the officials that smuggling into the country is a minor problem, while the majority of illicit tobacco trade is of illicit domestic production.

Results using method 1 suggest that there was a net deficit in consumption relative to legal sales from 1995 and 2001. This probably consisted of net smuggling out of Indonesia and/or under-reporting of 43.263 billion sticks in total in 1995 or 22% of tax paid sales. It is not clear to what degree this was smuggling out or under reporting, but as stated there is reason to believe the latter is small, and this will be addressed in future research (Wave 2). The level of smuggling out increased in 1996 and then steadily decreased to ten billion sticks (2.5% tax paid sales) in 2001 and probably consisted mainly of illegal exports to migrant Indonesians.

Our analysis suggests that by 2002-2004, the latest available data, there was a substantial increase in production of illegal domestic cigarettes and some net smuggling in. Together these amounted to at least 23-31 billion sticks per year or 10-14% of cigarette consumption, with a revenue loss between Rp 2.7 Trillion and Rp 3.5 trillion (US \$ 327-409 Million) or 9% to 13% of total tobacco excise revenue.

This increase in illegal cigarette production and net cigarette smuggling into Indonesia, would have pushed down the demand for legal cigarette production, and it is apparent that legal cigarette production decreased from 226 billion sticks (2001) to 201 billion sticks (2003), while the overall consumption increased due to increasing population and both increasing smoking prevalence and intensity of smoking from the cheaper illicit cigarettes available. The Ministry of Health estimated the proportion of cigarettes smuggled into Indonesia to be 5% of the overall cigarettes sold (Tobacco Source Book, 2004). If we take this to be indicative, the larger parts of the illicit cigarettes would therefore consist of illegally produced cigarettes.

This is consistent with the evidence that there are many thousands of small producers of cigarettes in Indonesia with no identification number, although the government requires that all manufacturers, importers, distributors, and retailers who deal with goods are subject to excise, and have a permit from NPPBKC. In East Java 1214 small cigarette producers were operating and only 903 had identification numbers (Santoso, 2004).

Indonesia's records for imported cigarettes fall far below the figures recorded by the corresponding exporting economies. Imported cigarettes are mostly white cigarettes such as Marlboro, Dunhill and SE 555. Between 2003 and 2006 the largest trade discrepancy with Indonesia are consistently Singapore and China. (Online newspapers² report that Marlboro, Ardath and Gudang Garam, with fake excise stamps, were smuggled from China to Indonesia through both airports and seaports, and during 2004-2005 the Directorate General of Excise and Custom intercepted fake cigarettes from China amounting to 6.8 million boxes valued at 20 billion rupiah). The overall discrepancies are however only very small percentages of total consumption, and represents an insignificant proportion of the tobacco revenue. It is notable that International manufacturers including Philip Morris and BAT have not been able to compete with local manufacturers which may be the reason Philip Morris bought Sampoerna in 2005 to produce inside Indonesia.

The Ministry of Finance has now introduced policies to simplify the complex tobacco tax system and to raise the overall rate. The government raised tobacco excise rate from February 1, 2009 from 31% to 38% of its retail price and applied specific excise only to all products whether of white or clove tobacco, manufactured or handmade, to be taxed at the same rate and tiers to be reduced from three to two. This should help to limit the illicit trade.

■ Conclusions

The estimation of illegal domestic cigarettes and net smuggling together amounted to at least 23-31 billion sticks per year or 10-14% of cigarette consumption. The revenue loss ranged between Rp 2.7 Trillion and Rp 3.5 trillion {US \$ 327-409 Million} in 2002-2004, representing between 9% and 13% of tobacco excise revenue. If there was under reporting of consumption in the surveys, this illicit trade and revenue loss could be considerably underestimated.

■ Policy conclusion

In order to reduce the illicit production and smuggling of cigarettes, the government needs to enforce the law with stricter monitoring and imposition of stronger penalties. These need to be done in the light of the significant tax revenue to be gained if smuggling and illegal production is minimized, and because it would improve the health and life expectancy of the population. Other ways to reduce illicit trade include limiting duty free sales, imposing regulation to use special labels and packaging, licensing of manufacturers, importers, exporters, wholesalers, transporters, warehouses and retailers producing and distributing tobacco products. Cooperation between neighboring countries within the region is also important as smuggling occurs largely across their borders.

² <http://www.tempointeraktif.com/hg/ekbis/2005/09/23/brk,20050923-67021,id.html>

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References

1. Ahsan et, al, 2007, “*Tobacco Control Country Study Indonesia*” Demographic Institute, Faculty of Economics University of Indonesia, Depok
2. Barber, Adioetomo, Ahsan and Setyonaluri, Sarah, Sri Moertiningsih, Abdillah and Diahhadi, 2008, “*Tobacco Economics in Indonesia*”, International Union Against Tuberculosis and Lung Diseases, Paris
3. Central Board of Statistic, 1995, “*Proyeksi Penduduk Indonesia 1995-2005*”, Jakarta
4. Collin, Le Gressley, Mackenzi, Lawrence and Lee, ,”Complicity in contraband: British American Tobacco and cigarettes smuggling in Asia”, *Tobacco Control* 2004; 13 :104-111
5. Damiri, 2008 “*Strategi Penanganan BKC Ilegal Dalam Rangka Meningkatkan Cukai (Strategies to Reduce Illegal Cigarettes in Order to Increase Local Sharing Excise Revenue)*” Power Point Presentation in Seminar “Sosialisasi Peranan Cukai Tembakau dalam Rangka Peningkatan Penerimaan Daerah dan Kontribusinya dalam Pembiayaan Pembangunan Daerah (Socialization of Tobacco Excise Revenue in Order to Increase Local Government Revenue)” at Economics Department, Faculty of Economics, University of Airlangga, September 16, 2008
6. Detik Finance, 2005 “*Rokok Selundupan Marak, Ical Diminta Panggil Dubes Cina*” <http://www.detikfinance.com/read/2005/03/10/145050/314701/4/rokok-selundupan-marak-ical-diminta-panggil-dubes-cina>
7. Hu and Mao, Teh Wei, “*Effects of Cigarettes Tax on Cigarettes Consumption and the Chinese Economy*”, *Tobacco Control* 2002; 11; 105-108
8. Jossens and Raw, Luk and Martin, 2008, “*Progress in Combating Cigarettes Smuggling*”, *Tobacco Control Online* 10 Sept 2008
9. Ministry of Health, 2005, “*The Tobacco Source Book Data to Support a National Tobacco Control Strategy English Translation*” Jakarta
10. Merriman, David, 2002, “*Tool 7 Smuggling Understand, Measure, and Combat Tobacco Smuggling*”, World Bank Economics of Tobacco Toolkit
11. Santoso, Kabul, 2006, “*Rokok Ilegal dan Dampaknya*”, Kompas 21 January 2006
12. <http://64,203,71,11/kompas-cetak/0601/21/Fokus/2322499.htm> (accessed on 19 September 2008)
13. Soenaryo, 2009, “*Perkembangan Kebijakan Cukai Hasil Tembakau di Indonesia*”, Powerpoint Presentation on Workshop “*Tobacco Excise Policy and Poverty Alleviation in Indonesia*” March 24, 2009, Jakarta
14. Tobacco Control Support Center, 2008, “*Profil Tembakau Indonesia*”, Jakarta
15. Tackling the Illicit Trade in Tobacco, ASEAN inter-sectionals meeting, 4-7 March 2002
16. Tobacco Free Asia: Smuggling Activity in South East Asia in Ministry of Health 2005
17. [http://www.tobaccofreeasia.net/MENU4/pdf%20Files/Media%20kits%20\(pdf\)/Smuggling.pdf](http://www.tobaccofreeasia.net/MENU4/pdf%20Files/Media%20kits%20(pdf)/Smuggling.pdf)
18. Townsend J., Roderick P, Cooper J, 1994 ‘Cigarette smoking by socioeconomic group, sex and age: effects of price, income and health publicity’ *BMJ* 309(6959) 923-927
19. Undang-Undang Republik Indonesia No, 11/ 1995
20. Undang-Undang Republik Indonesia No, 39/2005
21. www.trademap.org
22. www.fas.usda.gov/scriptsw/attacherep/attache_lout.asp

Table 1
Steps to Estimating the Cigarette Consumption, Indonesia, 1995-2005

Year	Smoking Prevalence ¹	Population ² age 15 years + million	Average Consumption (stick/day) ³	Estimated Consumption (million sticks/year)
(1)	(2)	(3)	(4)	$5 = 2 \times 3 \times 4 \times 365$
1995	0.269	131.2933	10.55	136 036
1996	0.277	134.9674	10.63	145 200
1997	0.285	138.5265	10.72	154 597
1998	0.293	141.9717	10.80	164 218
1999	0.301	145.3030	10.88	174 054
2000	0.309	148.5210	10.97	184 098
2001	0.317	151.8193	11.05	194 588
2002	0.325	155.0195	11.13	205 302
2003	0.334	157.9013	11.22	215 933
2004	0.342	160.4920	11.30	226 481
2005	0.350	162.9317	11.38	237 115

1 Estimated using trend analysis through regression method where 2001 as a base period.

2 Central Boards of Statistics, 1995

3 Estimated using trend analysis through regression method where 2001 as a base period.

Table 2

Estimated consumption of cigarettes (million sticks) in Indonesia, 1995-2004 assuming different levels of under reporting

Year	Survey Method Consumption	Underreporting Consumption			Production (P)	Imports (M) ⁵	Exports (X) ⁵	Tax Paid Sales (P+M-X)
		5%	10%	15%				
1995	136 036	142,838	149 640	156 441	200 180	294	21 175	179 299
1996	145 200	152 461	159 721	166 981	216 420	90	19 225	197 285
1997	154 597	162 327	170 056	177 786	227 339	84	23 090	204 333
1998	164 218	172 428	180 639	188 850	227 268	16	17 080	210 204
1999	174 054	182 757	191 459	200 162	226 649	121	11 500	215 270
2000	184 098	193 303	202 508	211 713	231 213	400	16 052	215 561
2001	194 588	204 317	214 047	223 776	226 638	206	22 220	204 625
2002	205 302	215 568	225 833	236 098	198 353	29	18 429	179 953
2003	215 933	226 730	237 526	248 323	201 261	24	16 056	185 229
2004	226 481	237 805	249 129	260 453	218 615	20	15 000	203 635

Note : Cigarettes production is based on excise ribbon order include hand-made clove cigarettes (SKT), machine-made clove cigarettes (SKM), white cigarettes (SPM), cigars, and cornhusk cigarettes. Source : TCSC, Source: [5.http://www.fas.usda.gov/scripts/w/attacherep/attache_lout.asp](http://www.fas.usda.gov/scripts/w/attacherep/attache_lout.asp) 2007

Table 3

Estimated Number of Illicit Cigarettes (million sticks) assuming different levels of under reporting in Indonesia, 1995-2004

Year	Number of Illicit cigarettes (millions)			
	0% Underreporting	5% Underreporting	10% Underreporting	15% Underreporting
1995	(43 262)	(36 461)	(29 659)	(22 857)
1996	(52 084)	(44 824)	(37 563)	(30 303)
1997	(49 735)	(42 006)	(34 276)	(26 546)
1998	(45 986)	(37 775)	(29 565)	(21 354)
1999	(41 215)	(32 512)	(23 810)	(15 107)
2000	(31 463)	(22 258)	(13 053)	(3 848)
2001	(10 036)	(306)	9 422	19 152
2002	25 349	35 614	45 879	56 144
2003	30 704	41 500	52 297	63 094
2004	22 846	34 170	45 494	56 818

Table 4**Government Revenue Loss due to Illicit Cigarettes (assuming no underreporting) Indonesia, 2002-2004**

Scenarios	Illegal Domestic Cigarette (million sticks)	Smuggling In (million sticks)	Weighted Average Domestic Price (Rp)	Weighted Average Imported Price (Rp)	VAT %	Average Domestic Excise Rate (%)	Imported Excise Rate for White Cig.(%)	Revenue Loss (Rp)		
								Illegal Domestic Cigarettes (millions)	Smuggling In	Total
								8=1*3*(5+6)	9=2*4*(5+7)	10=8+9
2002										
Scenario 1 [50:50]	12 674.667	12 674.667	286	259	0.084	0.31	0.4	1 428 232.198	1 588 845.581	3 017 077.779
Scenario 2 [60:40]	15 209.601	10 139.733	286	259	0.084	0.31	0.4	1 713 878.638	1 271 076.465	2 984 955.102
Scenario 3 [70:30]	17 744.534	7 604.800	286	259	0.084	0.31	0.4	1 999 525.077	953 307.348	2 952 832.426
Scenario 4 [80:20]	20 279.468	5 069.866	286	259	0.084	0.31	0.4	2 285 171.516	635 538.232	2 920 709.749
Scenario 5 [90:10]	22 814.401	2 534.933	286	259	0.084	0.31	0.4	2 570 817.957	317 769.116	2 888 587.072
Scenario 6 [100:0]	25 349.334	-	286	259	0.084	0.31	0.4	2 856 464.396	-	2 856 464.396
2003										
Scenario 1 [50:50]	15 352.096	15 352.096	286	259	0.084	0.31	0.4	1 729 935.634	1 924 477.400	3 654 413.034
Scenario 2 [60:40]	18 422.515	12 281.677	286	259	0.084	0.31	0.4	2 075 922.761	1 539 581.920	3 615 504.682
Scenario 3 [70:30]	21 492.935	9 211.257	286	259	0.084	0.31	0.4	2 421 909.888	1 154 686.440	3 576 596.328
Scenario 4 [80:20]	24 563.354	6 140.838	286	259	0.084	0.31	0.4	2 767 897.015	769 790.960	3 537 687.975
Scenario 5 [90:10]	27 633.774	3 070.419	286	259	0.084	0.31	0.4	3 113 884.142	384 895.480	3498 779.622
Scenario 6 [100:0]	30 704.192	-	286	259	0.084	0.31	0.4	3 459 871.269	-	3 459 871.269
2004										
Scenario 1 [50:50]	11 423.055	11 423.055	292	259	0.084	0.31	0.4	1 314 199.577	1 431 948.422	2 746 148.000
Scenario 2 [60:40]	13 707.665	9 138.444	292	259	0.084	0.31	0.4	1 577 039.492	1 145 558.738	2 722 598.230
Scenario 3 [70:30]	15 992.276	6 853.833	292	259	0.084	0.31	0.4	1 839 879.408	859 169.054	2 699 048.461
Scenario 4 [80:20]	18 276.887	4 569.222	292	259	0.084	0.31	0.4	2 102 719.322	572 779.369	2 675 498.692
Scenario 5 [90:10]	20 561.498	2 284.611	292	259	0.084	0.31	0.4	2 365 559.238	286 389 685	2 651 948.929
Scenario 6 [100:0]	22 846.109	-	292	259	0.084	0.31	0.4	2 628 399.154	-	2 628 399.154

Source : Authors Calculation

Table 5**Percentage of Revenue Loss due to Illicit Cigarette to Tobacco Excise Revenue, Indonesia, 2002-2004**

Year	Domestic Illegal Cigarette			Net Smuggled In		Total Illicit Cigarette	
	Revenue Loss (Rp, T)	Tobacco Excise Revenue (Rp, T)	% of Loss	Revenue Loss (Rp, T)	% of Loss	Revenue Loss (Rp, T)	% of Loss
2002	2.6	22.9	11.4	0.3	1.3	2.9	13
2003	3.1	25.9	12.1	0.3	1.3	3.5	13
2004	2.4	28.6	8.3	0.3	0.9	2.7	9

Source : Authors Calculation

Table 6**Export import discrepancy between cigarette imports recorded by Indonesia and exports recorded by Indonesia's exporting partners, in Thousand USD, 2003-2006**

Exporters	2003			2004			2005			2006		
	E	I	D	E	I	D	E	I	D	E	I	D
Singapore	10011	0	10011	14616	2	14614	11060	46	11014	8147	59	8088
China	3790	0	3790	3864	0	3864	4076	0	4076	5415	0	5415
Malaysia	1899	37	1862	643	7	636	1087	2	1085	1667	76	1591
Republic of Korea	956	65	891	1726	125	1601	2927	229	2698	1068	210	858
Philippines	59	0	59	431	0	431	1937	0	1937	2256	0	2256
Hong Kong (SARC)	226	48	178	310	75	235	3304	85	3219	6537	87	6450
United Kingdom	0	109	-109	1	0	1	0	0	0	186	1	185
Viet Nam	89	0	89	2985	0	2985		0	0		0	0
Switzerland	9	9	0	7	2	5	14	3	11	1	251	-250
Japan	0	0	0	62	62	0	52	0	52	10	82	-72
Others	45	40	5	93	13	80	370	736	-366	795	72	723
'World	17084	308	16776	24738	286	24452	24827	1101	23726	26082	838	25244
% of under-invoicing of total Indonesia import			98.20			98.84			95.57			96.79

Note: E=Exports reported by exporting countries, I = Imports reported by Indonesia, D=Export Import Discrepancy

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