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Empirical measurement of illicit tobacco trade in the Philippines

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Abstract

Cigarette smuggling reduces the price of cigarettes, thwarts youth access restrictions, reduces government revenue, and undercuts the ability of taxes to reduce consumption. The tobacco industry often opposes increases to tobacco taxes on the claim that greater taxes induce more smuggling. To date, little is known about the magnitude of smuggling in the Philippines. his information is necessary to effectively address illicit trade and to measure the impacts of tax changes and the introduction of secure tax markings on illicit trade.

This study employs two gap discrepancy methods to estimate the magnitude of illicit trade in cigarettes for the Philippines between 1994 and 2009. First, domestic consumption is compared with tax-paid sales to measure the consumption of illicit cigarettes. Second, imports recorded by the Philippines are compared with exports to the Philippines by trade partners to measure smuggling.

Domestic consumption fell short of tax-paid sales for all survey years. The magnitude of these differences and a comparison with a prevalence survey for 2009 suggest a high level of survey under-reporting of smoking. In the late 1990s and the mid 2000s, the Philippines experienced two sharp declines in trade discrepancies, from a high of $750 million in 1995 to a low of $133.7 million in 2008. Discrepancies composed more than one-third of the domestic market in 1995, but only 10 percent in 2009. Hong Kong, Singapore, and China together account for more than 80 percent of the cumulative discrepancies over the period and 74 percent of the discrepancy in 2009.

The presence of large discrepancies supports the need to implement an effective tax marking and tobacco track and trace system to reduce illicit trade and support tax collection. The absence of a relation between tax changes and smuggling suggests that potential increases in the excise tax should not be discouraged by illicit trade. Finally, the identification of specific trade partners as primary sources for illicit trade may facilitate targeted efforts in cooperation with these governments to reduce illicit trade.

Keywords

tobacco; illicit trade; tax evasion

1. Introduction

Illicit tobacco trade endangers public health by increasing the availability of inexpensive, untaxed cigarettes, reduces tax revenues, and undermines government efforts to control tobacco use. Existing estimates suggest that smuggling into the Philippines is sizable. A 2003 report from the United States Department of Agriculture using production data to estimate that illicit cigarettes accounted for 25 percent of total consumption. In 2011, Eriksen, Mackay, and Ross [2012] placed illicit trade at 19.9 percent of domestic sales. Antonio [2008] estimated that lost revenues amounted to between ₱23 billion and ₱52 billion in 2005, based on an examination of trade discrepancies and consumption data. Abola, Bedaño, and Tan [2007] found that illicit trade in imported cigarettes amounted to ₱23 billion during the period 2002-2005.

To counter tax evasion and the public health threat posed by illicit cigarettes, particularly to those with low incomes, the World Health Organization Framework Convention on Tobacco Control (WHO FCTC) requires parties to curb illicit trade of tobacco through a number of measures including the tracking and identification of tobacco trade from origin to destination (see WHO [2003]). The Philippines, as party to the WHO FCTC, committed to the enactment and enforcement of laws to counter all forms of illicit trade in tobacco products. These laws include the Tax Reform Act of 1997, which preceded adoption of the WHO FCTC, that required markings to be affixed to tobacco products. The upcoming implementation of a marking system independent from the tobacco industry will reduce illicit trade by facilitating the identification of licit and illicit cigarettes.

Moreover, illicit trade undermines not only domestic tobacco control efforts, but also those implemented by other countries. Investigative journalist Florentino-Hofileña [2010] reported that the Philippines is believed to be a thruway for organized smuggling networks. As described by intelligence officials, a typical cigarette shipment would travel from China, to Hong Kong, then to the Subic Bay Freeport in the Philippines where customs oversight is relatively low. There, the shipment would be divided and shipped back to China, to other final destinations, or it would remain in the Philippines. It is believed that as much as ₱50-60 million are smuggled into the Philippines every year, only a small fraction of which are interdicted.

Illicit trade is difficult to measure owing to its clandestine nature and the methodological differences between different approaches to measurement. The studies that do exist in other countries often possess opaque methodologies that are difficult to replicate or assess with respect to accuracy. Even in cases where research methods are clear, an established standard for estimation does not exist for the field as a whole, and legitimate differences across methods may produce estimates that capture overlapping subsets of illicit trade as a whole. Measurement of the magnitude of smuggling over time not only provides a measure of the problem created by the availability of illicit cigarettes, but in comparison with changes to tobacco control policy, may allow for a better understanding of the relation between tobacco control efforts and illicit trade, if any.

A key question for public health officials is how to ascertain to what extent the tax structure and changes to tax levels promote the availability of inexpensive cigarettes, both legitimate and illegitimate. The Philippine government subjects cigarettes to tariffs, a value-added tax (VAT), and an excise tax schedule that assesses tiered rates based on product price. As of 2010, tariffs stood at 0 percent for imports from other members of ASEAN Free Trade Area with a few exceptions. The excise tax tier assesses a fixed price per pack, where lower rates are assessed on less expensive cigarettes, as shown in Appendix 1. Moreover, until the law was amended in 2012, the products of seven companies, including PMFTC Inc., benefitted from a tax base freeze at 1996 levels. Leonen, Sy, Reyes, and Latuja [2010] write that these factors solidified the positions of advantaged firms and incentivized companies to misclassify products into lower price tiers, and both revenue collectors and finance officials agree that a weak tax administration system facilitated misclassification and tax collections that fell short of projections. As of January 2013, the tax structure was simplified and the tax base freeze removed, which will lead to a single and uniform rate by 2017.

Despite clear cross-national evidence that tax increases raise revenue, lower consumption, and have no clear relation to increased smuggling, the threat of increased smuggling remains a major impediment to higher tax levels, write Joossens, Chaloupka, Merriman, and Yurekli [2000]. The objective of this study is to estimate the magnitude of smuggling with the use of two transparent and replicable methods, identified by Merriman [2002], for which data are readily available. The first method compares survey-based estimates of consumption to tax-paid sales. The second method compares imports reported by the Philippines to exports reported by trade partners as a proxy for smuggling. Finally, tentative conclusions regarding the relation between taxes and illicit trade will be discussed.

2. Methods

The consumption of illicit cigarettes is measured by discrepancies between survey-based estimates of cigarette consumption and cigarette removals, which are cigarettes that are produced or licensed for sale (and subjected to excise tax and VAT) within the Philippines.[1] Where consumption exceeds removals, the consumption of illicit cigarettes is present. Illicit cigarettes may originate from domestic sources or from abroad, and this method is unable to distinguish between untaxed or otherwise illicit cigarettes that are produced domestically and those smuggled from other countries. In addition, this method may underestimate the consumption of illicit cigarettes if domestic production of untaxed cigarettes and simultaneous, offsetting flows of illicit cigarettes into and out of the Philippines are present because this method can only measure the net total of illicit cigarettes within the market, not its individual components. Finally, survey respondent under-reporting of cigarette smoking has been documented in countries where smoking is not considered widely acceptable. Under-reporting in these contexts ranged from 22 percent in the United States in 1974, to 30 percent in New Zealand in 1981, to as high as 35 percent in Italy in 2008 (Hatzlandreu, Pierce, Fiore, Grise, Novotny, and Davis [1989]; Jackson and Beaglehole [1985]; Gallus,

[1]Cigarette removals in the Philippine context mean locally-produced and taxed (excise and VAT) cigarettes that are brought out of the factory. These are based on data of the Bureau of Internal Revenue. Locally produced cigarettes for export are not subject to domestic taxes and thus, the bureau excludes them from the calculation of removals.

Tramacere, Boffetta, Fernandez, Rossi, Zuccaro, Colombo, and Vecchia [2011]). This study compares several scenarios based on assumed levels of respondent under-reporting at 10 percent, 20 percent, and 30 percent of reported consumption.

Due to the unavailability of smoking prevalence surveys except in 2009, consumption was estimated from expenditures data using the Family Income and Expenditure Survey, which is collected by the National Statistics Office every three years. All surveys between 1994 and 2009 are used. The questionnaire asks for weekly tobacco expenditures and may under-report expenditures if respondents do not know total household expenditures for all family members. For example, it does not include expenditures made by underage smokers, nor does it include expenditures made by tourists and other non-residents omitted from the survey. These data are converted to a volume basis with the use of average cigarette pack price per brand. The average price per brand was sourced from a survey conducted by the Bureau of Internal Revenue in 2003. Each brand's price is weighted by the market share of the brand to produce a single average price. This price is adjusted for every survey year by the consumer price index for cigarettes.

Finally, these figures are supplemented for consumption by groups excluded from the expenditure survey. Smoking by adolescents is derived from two sources, namely, the 2007 Global Youth Tobacco Survey and the 2009 Global Adult Tobacco Survey (GATS). The former provides prevalence for smokers aged 10 to 14, and the latter provides daily consumption for smokers aged 15 to 24. It is assumed that smokers aged 10 to 14 consume as many cigarettes as those aged 15 to 24. Smoking by tourists was estimated from several sources. Numbers of tourists and migrant workers and smoking prevalence among them were sourced from available, country-level GATS studies in the region. ERC, an industry source, reported average tourist cigarette consumption by country of origin in 2007. Data on average length of stay by country were also compiled from government sources, particularly statistics from the Department of Tourism. The combined consumption estimates are compared to cigarette removals as reported by Antonio [2008] and as recorded by the Bureau of Internal Revenue. For the purposes of this study, cigarette removals exclude exports; they refer to those intended for the domestic market and subjected to excise tax.

In a second method, net smuggling into the Philippines is estimated by trade discrepancies that are summed across all trading partners for each year of the study. These discrepancies are the differences between imports as recorded by the Philippines and exports to the Philippines as recorded by the trading partner in question and, where exports reported by the trading partner exceed imports reported by the Philippines, inward smuggling into the Philippines is indicated. There are several legitimate and illegitimate causes of trade discrepancies (Ferrantino and Wang [2008]; Bhagwati [1964]).

The inclusion of freight and insurance costs in the shipment value, the documentation of origin versus most immediate stop where goods are transshipped, and the arrival of a shipment in the calendar year following that for the departure of origin constitute legitimate discrepancies, while smuggling, product misclassification, and under-invoicing of a shipment all serve as forms of tax evasion and illegitimate conduct. While the relative magnitudes of these factors are not known and a discrepancy itself is an imperfect measure

of smuggling activity, persistent discrepancies, particularly when large, are suggestive of illicit trade [Vincent 2004]. Cigarette smuggling as measured by this method will roughly equal the consumption of illicit cigarettes as measured by the prior method if illicit cigarettes originating domestically are not substantial. Finally, as not all exporters to the Philippines measured cigarette trade in terms of quantity, value-based discrepancies are reported for the study period. Quantity-based discrepancies are included where all trade partners reported quantity measurements.

Trade data used to calculate discrepancies were sourced from the United Nations Commodity Trade Database. All cigarette imports by the Philippines for the period 1994 through 2009 were matched to all mirrored export records recorded by trading partners using the same commodity codes, Harmonized System (HS) 240220 and Standard Industrial Trade Classification (SITC) Revision 3 code 1222, which are identically defined. The former system is the current standard for most countries, and the latter system was collected to supplement the data early in the study period. All countries that either recorded exports to the Philippines or were recorded as the import source by the Philippines were included. Both value and volume statistics were collected. However, complete volume information was only available for five years. Discrepancies were summed to produce a net import discrepancy for each year. In addition, origins of the largest discrepancies that indicate smuggling into the Philippines are included and discussed.

3. Results

While estimates of consumption do not exceed the numbers of cigarettes sold, the discrepancy between these figures, with sales often twice the magnitude of consumption, suggests large outflows of smuggled cigarettes to other countries if the data are accurate. Total consumption, reported in Table 1, peaked at 1.85 billion packs in 2000, compared with 3.52 billion packs sold. Though consumption generally declined after 2000, sales continued to rise by more than 1 billion packs through 2006.

Alternatively, the expenditure survey may severely understate true consumption, particularly for other non-respondent, household members. To evaluate this possibility, the 2009 GATS, the only prevalence-based survey available for the Philippines, was compared with the consumption estimate for 2009. The 2009 GATS reported about 16.6 million manufactured cigarette smokers. Among daily manufactured or hand-rolled cigarette smokers, the closest category available for comparison to manufactured cigarette smokers, intensity averaged 10.6 cigarettes per day, and total consumption amounted to about 3.2 billion packs for the Philippines. While higher than the 1.77 billion packs estimated by the expenditure survey, this figure is well below cigarette removals of more than 4 billion packs. Importantly, respondent under-reporting would have to fall to 27.8 percent for the GATS consumption figure to match sales. This figure refers only to 2009, and there is considerable variability of likely under-reporting over time. As suggested by the literature, this level of respondent under-reporting is reasonable and suggests that expenditures-based consumption estimates understate consumption, possibly by a large amount (Hatzlandreu, Pierce, Fiore, Grise, Novotny, and Davis [1989]; Jackson and Beaglehole [1985]; Gallus, Tramacere, Boffetta, Fernandez, Rossi, Zuccaro, Colombo, and Vecchia [2011]).

Smuggling as measured by trade discrepancies with all trading partners fell sharply during the mid- to late 1990s and during a second period in the mid-2000s. As shown in Table 2, the majority of this decline was due to a fall in reported exports to the Philippines. Cigarette exports to the Philippines peaked at more than $750 million in 1995 and fell to $217 million by 1998. Periods of relatively high imports in 1994 and between 2001 and 2003 punctuate longer periods of low imports, often fewer than $10 million per year.

While the magnitude of trade discrepancy for the Philippines fell over the 15-year period, discrepancies remain a substantial problem if compared to legal trade. Discrepancies divided by total trade, the sum of imports recorded by the Philippines and exports to the Philippines recorded by trade partners, indicate the relative magnitude of trade discrepancies compared with imports as contributing factors. Low discrepancy to total trade ratios indicate low discrepancy figures relative to legal imports, while high values indicate high levels of smuggling, low import values, or both. As a share of total trade, discrepancies fell from a high of 97 percent in 1996 to a low of 57 percent in 2003, but they rose sharply to more than 90 percent by the late 2000s.

At the bilateral trade relation level of analysis, discrepancies are variable in magnitude and in trend over time. Furthermore, important sources for discrepancies vary with respect to proximity. Table 3 presents discrepancies for the top ten sources for discrepancies over the period. Hong Kong alone accounted for more than 45 percent of the cumulative discrepancy over the period, while Hong Kong, Singapore, and China accounted for nearly 80 percent of the discrepancy. The proportion of the total discrepancy originating from these three countries fell slightly over the period, from 83 percent in 1994 to 74 percent in 2009. While a majority of top ten countries are located within Asia, four countries—the United Kingdom, the United States, Germany, and Canada—are both far removed from the region and of relatively high income. Finally, as with summed discrepancies, bilateral discrepancies fell in magnitude over the period with each of the presented countries.

Prominent origins for smuggled cigarettes changed over the period as the magnitude of smuggling fell. The rank ordering of major origins of illicit trade for the period does not reflect the importance of prominent sources in the recent past. Table 4 presents the top ten sources for illicit trade, ranked by value, in 2009. Half of these countries were not important origins for smuggled cigarettes over the period as a whole, which indicates a reorganization of illicit trade toward new origins. Each of the new entrants (Mauritius, Bulgaria, India, South Korea, and Australia) are responsible for no more than roughly $5 million of smuggled cigarettes, well below the figures for Hong Kong and Singapore. Four countries each only contribute about 1 percent to total trade discrepancies for the entire period, while three each contribute about 2 percent to total trade discrepancies. While large, the trade discrepancies for the United Kingdom, the United States, and Germany and the absence of these countries in Table 4 underscore their importance early in the study period and the shift toward Asia as a source of illicit cigarettes.

As not all trade partners recorded exports measured by quantity to the Philippines, illicit trade as a share of the domestic market cannot be assessed for all years. However, complete data was reported for five years over the period. Discrepancies as a share of the domestic

market, represented by removals, fell during the period, as shown in Table 5. As of 2009, discrepancies amounted to about 10 percent of the domestic market, down from more than 14 percent two years earlier and sharply down from 35 percent in the mid-1990s.

4. Discussion

The results clearly indicate two episodes of sharp decline in smuggling into the Philippines, the first during the late 1990s and the second during the mid-2000s. While incomplete, recent trade discrepancies data show smuggling amounts to about 10 percent of the domestic market. However, while smuggled cigarettes may have declined in absolute values in the mid-1990s, a comparison of the magnitudes of smuggled cigarettes and legally imported cigarettes suggests that smuggling remains a substantial problem. At their low in 2003, illicit cigarettes composed 57 percent of all cigarettes entering the Philippines, $260 million compared with $100 million in legal imports. By 2009, while illicit cigarette imports stood at $137 million, less than in 2003, they composed 93 percent of all cigarettes entering the Philippines, as legal imports were only $5 million that year. In the face of a succession of tax increases from 1997 through 2009, there is no evidence of sustained increases in illicit trade, and in fact, illicit trade fell sharply over the study period.

The results also clearly indicate that the importance of specific trade partners to illicit trade changes over time. In addition, changes to the supply chain may have an impact on illicit trade patterns because in this period, Philip Morris opened its manufacturing plant while other local manufacturers started exporting products to Europe. Specifically, the United Kingdom, the United States, and Germany disappeared from the list of prominent origins after 1997 and were generally replaced by a mix of proximate countries falling outside the ASEAN region. However, Hong Kong, Singapore, and China play dominant roles as sources for discrepancies over most of the period.

The two methods employed are not mutually exclusive and each possesses limitations. Comparison of survey-based consumption to tax paid sales is difficult in the absence of prevalence surveys, and expenditures data may not serve as a useful alternative. Also, the inability to distinguish between illicit cigarettes of domestic origin and inward smuggling may reduce the focus for the appropriate policy. By contrast, trade discrepancies may unintentionally capture sources for discrepancies, such as the timing of shipments or valuation differences, that are in no way connected to illicit activity. Furthermore, discrepancies do not capture the magnitude of illicit production, which may limit its applicability to countries where illicit production is known to be significant. Finally, the results of the comparison of consumption to cigarette removals underscore the problematic nature of the data used in this particular study. Specifically, the data employed by this study (using expenditure data) estimates consumption in 2009 at 1.8 billion, far below the GATS prevalence survey at 3.2 billion. This finding highlights the need for surveys that can produce estimates of smoking prevalence that can be compared across international contexts and over time.

Measurement of illicit activity is difficult owing to its clandestine nature, and existing estimates are often opaque. This paper uses two transparent and replicable methods to

estimate illicit trade. The results underscore the need for accurate reporting and collection of data, particularly prevalence information, for future measurement. The results also identify smuggling as substantial, albeit on a downward trend, and dominated by three specific trade partners. Hence, targeted, cooperative efforts to reduce smuggling in conjunction with major sources for illicit cigarettes can be justified as these are more efficient than broad efforts. As government authorities declared, implementation of an effective and secure tax marking system may facilitate identification of illicit packs.

Further studies are needed to uncover the reasons for under-reporting in method 1 and to improve data gathering.

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Appendix 1. Tax schedule according to net retail price per pack, by price tier

		Net retail price (selling price less VAT and excise tax)			
Effective date	**Enabling legislation**	**Below ₱5.00 (Low price)**	**₱5.00-6.50 (Mid price)**	**₱6.50-10.00 (High price)**	**Above ₱10.00 (Premium price)**
Jan. 1, 1997	RA 8424	1.00	5.00	8.00	12.00
Jan. 1, 2000	RA 8424*	1.12	5.60	8.96	14.40
Jan. 1, 2005	RA 9334	2.00	6.35	10.35	25.00
Jan. 1, 2007	RA 9334*	2.23	6.74	10.88	26.06
Jan. 1, 2009	RA 9334*	2.47	7.14	11.43	27.16
Jan. 1, 2011	RA 9334*	2.72	7.56	12.00	28.30

*Rate adjustment specified in enabling legislation.

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Table 1

Tobacco expenditures, consumption, and removals, 1994-2009

	1994	1997	2000	2003	2006	2009
Household tobacco expenditures (billion pesos)	12.08	18.36	19.70	22.42	23.05	25.91
Tourist tobacco expenditures (billion pesos)	.01	.02	.02	.02	.04	.05
Youth tobacco expenditures (billion pesos)	*	*	3.37	2.64	4.29	4.70
Total expenditures (billion pesos)	12.09	18.38	23.10	25.08	27.38	30.66
Average pack price (pesos)	9.00	10.70	12.48	14.02	15.76	17.29
Total consumption (billion packs)	1.34	1.72	1.85	1.79	1.74	1.77
Cigarette removals (billion packs)	3.40	3.26	3.52	4.36	4.58	4.09
Illicit consumption (billion packs)	-2.06	-1.54	-1.67	-2.57	-2.84	-2.32
Illicit consumption, 10% under-reporting (billion packs)	-1.92	-1.37	-1.48	-2.39	-2.67	-2.14
Illicit consumption, 20% under-reporting (billion packs)	-1.79	-1.20	-1.30	-2.21	-2.50	-1.96
Illicit consumption, 30% under-reporting (billion packs)	-1.65	-1.03	-1.11	-2.03	-2.32	-1.78

Sources: Family Income and Expenditure Survey and the Bureau of Internal Revenue, ERC, Tourism Statistics of the Department of Tourism

*Data not available: Global Youth Tobacco Survey was initiated in 2000.

Table 2

Philippine imports, trade partner exports, and trade discrepancies for cigarettes, 1994-2009, millions of us dollars

Year	Philippine imports	Exports to the Philippines	Discrepancy	Percentage change over prior year in discrepancy	Discrepancy as share of total trade*
1994	88.9	758.8	669.9		79.0%
1995	31.6	784.8	753.2	12.4%	92.3%
1996	9.7	697.8	688.1	-8.6%	97.3%
1997	20.2	464.7	444.5	-35.4%	91.7%
1998	33.6	216.9	183.3	-58.8%	73.2%
1999	26.3	272.5	246.2	34.3%	82.4%
2000	40.1	362.0	321.9	30.7%	80.1%
2001	89.0	377.6	288.6	-10.3%	61.8%
2002	113.7	424.9	311.2	7.8%	57.8%
2003	100.3	366.8	266.5	-14.4%	57.0%
2004	22.0	364.8	342.8	28.6%	88.6%
2005	8.1	274.7	266.6	-22.2%	94.3%
2006	4.5	180.2	175.7	-34.1%	95.2%
2007	5.1	165.2	160.1	-8.9%	94.0%
2008	5.7	139.4	133.7	-16.5%	92.1%
2009	5.2	142.8	137.6	2.9%	92.9%

Source: United Nations Commodity Trade Database

* Total trade is defined as the sum of imports recorded by the Philippines and exports to the Philippines recorded by trade partners.

Table 3

Top 10 cigarette trade discrepancies for trade partners with largest inward discrepancies over the period, 1996-2009, selected years, millions of us dollars

	1994	1997	2000	2003	2006	2009	Cumulative share (%)
China, Hong Kong SAR	432.1	119.0	134.6	157.7	78.0	53.5	45.6%
Singapore	64.0	75.4	177.4	83.1	27.0	38.2	23.3%
China	62.5	105.5	0.6	6.5	8.3	10.7	12.0%
United Kingdom	70.6	96.9	0.1	-0.1	-0.0	-0.0	8.3%
USA	37.5	11.9	0.3	-0.2	2.5	0.2	2.3%
Germany	1.7	28.1	-0.0	-0.6	-0.0	-0.0	2.2%
China, Macao SAR	0.2	3.8	1.6	8.8	8.2	2.1	1.3%
Canada	0.0	1.1	4.9	7.3	11.8	2.6	1.1%
Malaysia	0.4	2.5	2.7	5.9	5.0	0.8	1.1%
Indonesia	2.2	0.3	0.7	0.2	7.1	6.3	0.8%
Others	-1.3	-0.1	-0.8	-2.0	27.9	23.3	2.0%
World	669.9	444.5	321.9	266.5	175.7	137.6	5,389.88
% Total, Top 10*	100.2	100.0	100.3	100.8	84.1	83.0	98.0

Source: United Nations Commodity Trade Database

*Percentages above 100% indicate years for which all other trade partners together offset inward smuggling from top 10 countries.

Table 4

Top 10 trade discrepancies for trade partners with largest inward discrepancies in 2009, 1996-2009, selected years, millions of us dollars

	1994	1997	2000	2003	2006	2009	Cumulative share (%)
China, Hong Kong SAR	432.1	119.0	134.6	157.7	78.0	53.5	45.6%
Singapore	64.0	75.4	177.4	83.1	27.0	38.2	23.3%
China	62.5	105.5	0.6	6.5	8.3	10.7	12.0%
Indonesia	2.2	0.3	0.7	0.2	7.1	6.3	0.8%
Mauritius	0.0	0.0	0.0	0.0	0.3	5.2	0.3%
Bulgaria	NA	0.0	0.0	0.0	0.0	4.3	0.1%
India	0.0	0.0	0.1	0.6	0.1	3.6	0.2%
Rep. of Korea	-1.4	0.0	-1.9	-1.8	0.4	3.5	-0.1%
Australia	0.5	0.3	0.6	4.2	4.3	3.4	0.7%
Canada	0.0	1.1	4.9	7.3	11.8	2.6	1.1%
Others	110.0	143.1	5.1	8.6	38.5	6.4	16.0%
World	669.9	444.5	321.9	266.5	175.7	137.6	5,389.88
% Total, Top 10*	100.2	100.0	100.3	100.8	84.1	83.0	98.0

Source: United Nations Commodity Trade Database

Table 5

Cigarette trade discrepancies and share of domestic market, billions of packs, 1994-2009

Year	Imports by the Philippines	Exports to the Philippines	Discrepancy	Cigarette removals	Discrepancies as share of domestic market
1994	0.49	2.35	1.86	3.40	35.4%
1995	0.22	2.18	1.95	3.53	35.6%
2007	0.25	0.95	0.70	4.10	14.5%
2008	0.29	0.78	0.49	4.17	10.6%
2009	0.26	0.73	0.47	4.09	10.4%

Source: United Nations Commodity Trade Database