



Asia Illicit Tobacco Indicator 2016: Executive Summary

Prepared by Oxford Economics
December 2017

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Foreword

“Trading in illicit products funds organised crime and terrorism, in some instances. This kind of illegal commerce has severe consequences for the community but unfortunately not too severe on the criminal perpetrators themselves. The ROI in trading in illicit products like tobacco or counterfeit luxury goods is in many cases higher than the ROI in illicit drugs like cocaine or ICE. Over and above this, the penalties for offenders are significantly less, in most cases, than the penalties for dealing in illicit drugs. The “business proposition” for illicit trading in products other than drugs is very attractive. Criminal Justice systems around the world need to review the penalties handed down to offenders in order to make for harsher consequences. The lost revenue by Governments that could have been applied to new schools, hospitals and infrastructure, for example, should be enough of an incentive for them to review the penalties. This study can only be helpful to create greater understanding of illicit trade so both Governments and Law Enforcement Agencies can prioritise their resources and act appropriately. The Crime Stoppers International programmes worldwide have made combatting trade in illicit products, like tobacco, one of its key priorities in its long-term strategic plan to fight organised crime”.

Peter Price OAM, AM
Vice President of Crime Stoppers International (ret)
Director Crime Stoppers Australia

“The Asia Illicit Tobacco Indicator 2016 is a comprehensive and evidence-based study that digs deep into the complex myriad of illicit tobacco trade and evaluates the huge tax losses from smuggling, counterfeit cigarettes, and unregistered volumes which are rampant in the Philippine cigarette industry. But illicit trade of cigarettes goes far beyond smuggling and tax evasion. It has extensive backward linkages with adverse economic impacts and multiplier effects on gross domestic product, household income, and employment. This Report will serve as an instrumental guide for policymakers in the fields of fiscal reform, intellectual property protection, law enforcement, and border protection, to make informed decisions and devise an effective and holistic strategy against illicit tobacco trade.”

Dr. Rolando T. Dy
Executive Director for Food and Agribusiness
University of Asia and the Pacific

Scope

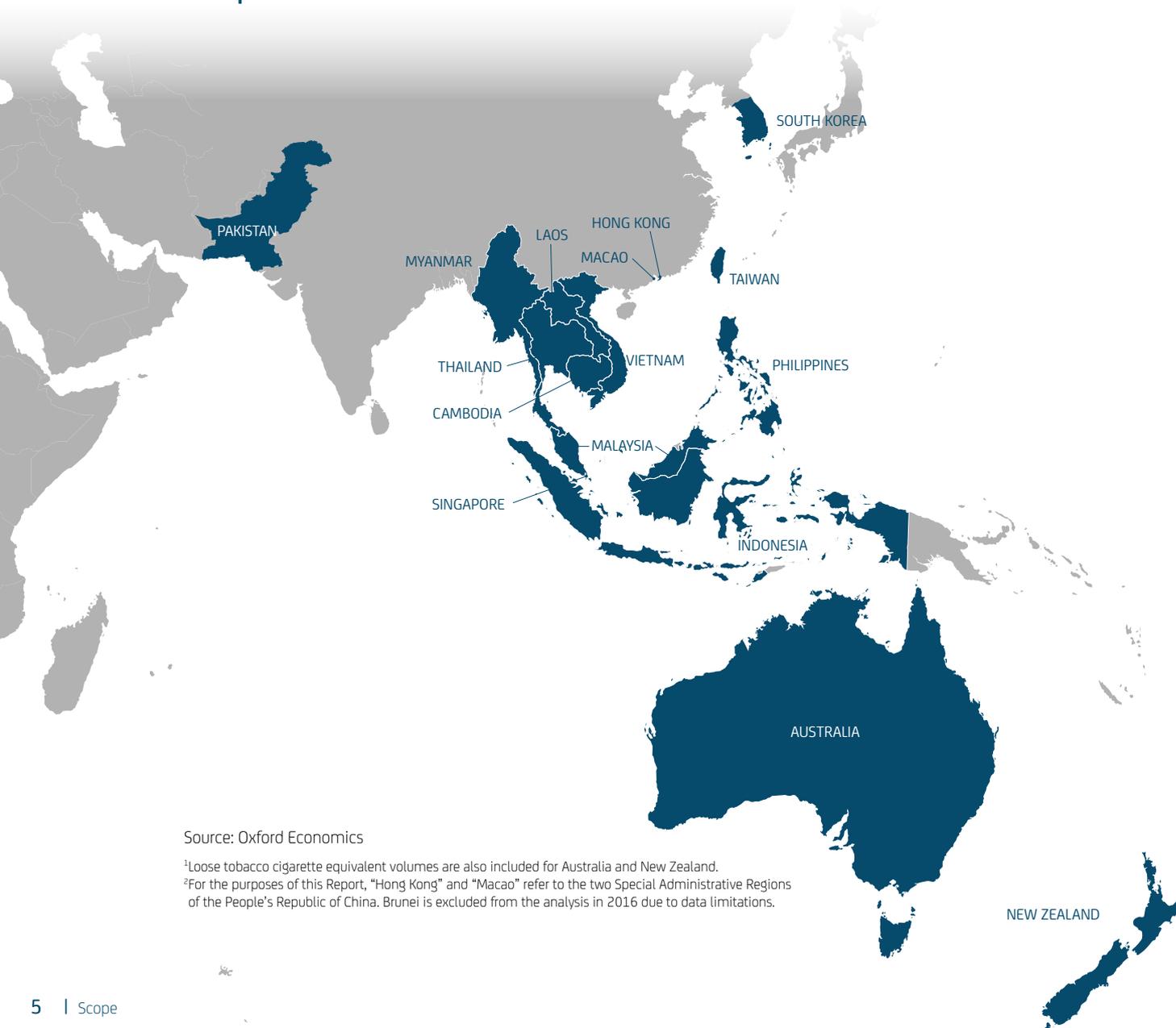
This Report provides an overview of the nature of the illicit trade of cigarettes across a selection of Asian markets (including Australia and New Zealand). It establishes estimates of consumption of illicit cigarettes and the impact this has on tobacco tax revenue.¹ This is the fifth year of the Asia Illicit Tobacco Indicator Report. Historical data are available via the following link <http://illicittobacco.oxfordeconomics.com/>.

The purpose of this Report is to:

- Validate Illicit Incidence levels, reviewing and refining estimates using available sources such as Empty Pack Surveys, consumer research, and other sources.
- Estimate Illicit Consumption in terms of volume, including where possible, a breakdown by Market Variant.
- Estimate annual government Tax Loss from indirect taxes on cigarettes including Excise Tax, VAT/GST/sales tax, and Earmarked Taxes.

This year, the selected markets include: Australia, Cambodia, Hong Kong, Indonesia, Laos, Macao, Malaysia, Myanmar, New Zealand, Pakistan, Philippines, Singapore, South Korea, Taiwan, Thailand, and Vietnam.²

Map of Asia Illicit Tobacco Indicator markets



Source: Oxford Economics

¹Loose tobacco cigarette equivalent volumes are also included for Australia and New Zealand.

²For the purposes of this Report, "Hong Kong" and "Macao" refer to the two Special Administrative Regions of the People's Republic of China. Brunei is excluded from the analysis in 2016 due to data limitations.

Methodology

Oxford Economics developed an Illicit Trade (IT) Flows Model to estimate the size of Illicit Consumption and trade flows in selected Asian markets. A detailed methodology and glossary of terms is contained within the Asia Illicit Tobacco Indicator 2016 Methodological Overview Report, available via <http://illicittobacco.oxfordeconomics.com/methodology/>, which should be read in conjunction with this Report. A summary of the methodology is provided below:

- To measure Legal Domestic Sales, we used official statistics on duty-paid sales (subject to availability) and In-Market Sales data provided by the industry.
- Legal Domestic Consumption was subsequently calculated by adjusting Legal Domestic Sales data for Outflows of legal cigarettes based on analysis of Empty Pack Surveys and consumer research in other markets (e.g., an Inflow of Australian Market Variant cigarettes as identified by the Empty Pack Survey conducted in New Zealand must also be recorded as an Outflow of legal cigarettes from Australia in the IT Flows Model).¹
- The incidence and volume of Non-Domestic Inflows were primarily estimated using Empty Pack Surveys. These provide an estimate of the share of non-domestic cigarettes in Total Consumption. Legal Domestic Consumption is scaled up by this non-domestic share, leading to an estimate of the volume of Non-Domestic Inflows and hence Total Consumption.²
- Empty Pack Surveys also provide a breakdown of the Inflows by Market Variant so that they can be matched against the Outflows data (see above). The IT Flows Model is “iterated” to ensure consistency between Inflows and Outflows by market, leading to refinement of the estimates of incidence and volume of Inflows.
- The volume of Non-Domestic Legal cigarettes entering each market is estimated separately by calculating the “theoretical maximum volume of legal Duty-Free Inflows of cigarettes” from the rest of the world. This is based on tourism data on passenger flows (inbound and outbound), Smoking Prevalence and population data, and the prevailing passenger duty-free personal import allowance in each market under consideration.
- The volume of Non-Domestic Illicit Inflows (i.e., Counterfeit, Contraband, and Non-Domestic Illicit with Unspecified Market Variant) is subsequently calculated by subtracting the estimate of Non-Domestic Legal Inflows from total Non-Domestic Inflows. In addition, Consumer Survey data were used to incorporate estimates of illicit Inflows of loose tobacco in Australia and New Zealand.³
- Domestic Illicit Consumption is identified primarily through the use of retail audits where relevant. In addition, this Report supplements the analysis for Indonesia with estimates of Domestic Illicit Incidence from Satriawan, Adji, and Riyanto (2016) in order to capture information on packs with the incorrect Excise Tax stamp attached.⁴
- Finally, the Tax Loss associated with Illicit Consumption in each market was calculated using the applicable price and tax levels and structures for 2016. For those markets where the fiscal year differs from the calendar year, fiscal year data were adapted to be presented on a calendar year basis for presentation at the aggregate level. The Report focuses on the impact of indirect taxation only.
- Throughout this Report, figures presented in tables and charts may not add up due to rounding.

¹Empty Pack Surveys are conducted by independent research companies and commissioned by PM or jointly by several tobacco manufacturers. This Report only considers Outflows to other markets included in the Asia Illicit Tobacco Indicator and therefore the figures presented may underestimate total Outflows from each market. See Methodological Overview Report for more details.

²For those markets with a presence of Domestic Illicit, the Non-Domestic Share is applied to estimates of Legal Domestic Consumption plus Domestic Illicit.

³It is recognised that illicit tobacco originates from both Non-Domestic and Domestic home-grown sources; however it is not possible to separate the two, and therefore for the purposes of this Report we consider all illicit loose tobacco volumes to be of Non-Domestic origin.

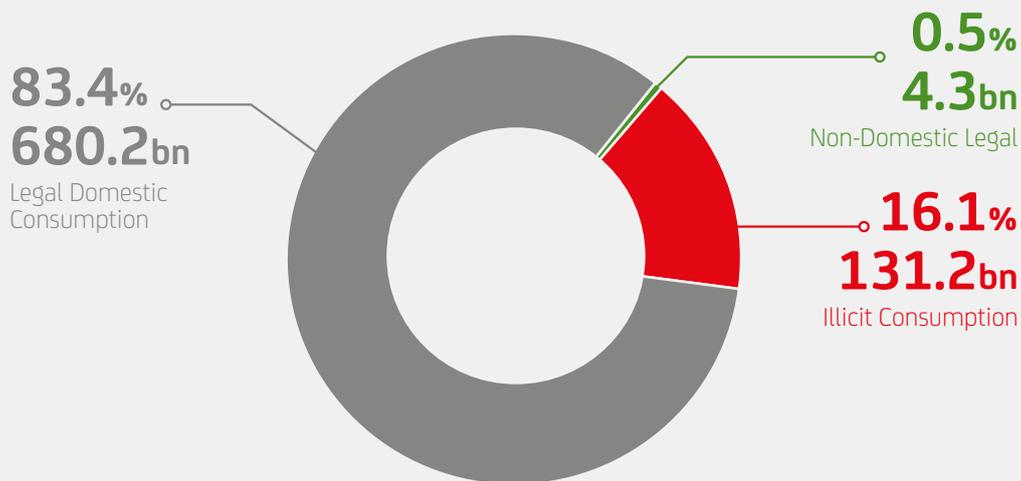
⁴Satriawan, Elan; Artidiatun Adji, Bambang Riyanto, Wisnu Setiadi Nugroho, Andika Ridha Ayu Perdana, Riswanti Budi Sekaringsih, Dreda Bumi Pamungkas, Mohtar Rasyid, Azka Azifa, “A Survey on Illegal Cigarettes in Indonesia: 2016”, Economics and Business Research and Development Agency (EBReDA), Faculty of Economics and Business, Universitas Gadjah Mada, Yogyakarta, Indonesia. Unpublished Report, 2016.

Executive Summary: Total Consumption

Total Consumption (legal and illicit) across the sixteen markets included in this Report was an estimated 815.7 billion cigarettes in 2016. Total cigarette consumption consists of:

- **Legal Domestic Consumption** – After adjusting the volume of Legal Domestic Sales for Outflows of cigarettes to other markets included in this Report, Legal Domestic Consumption amounted to an estimated 680.2 billion cigarettes in 2016 (83.4% of Total Consumption).
- **Non-Domestic Legal** – Consumption of Non-Domestic Legal cigarettes amounted to 4.3 billion cigarettes (0.5% of Total Consumption).
- **Illicit Consumption** – 16.1% of Total Consumption, or 131.2 billion cigarettes, was estimated to have been illicit in 2016, consisting of Non-Domestic Illicit and Domestic Illicit cigarettes.¹

Composition of cigarette consumption 2016



Source: Oxford Economics

¹Non-Domestic Illicit includes Australian Chop-chop (unbranded loose tobacco) and Illicit RYO in New Zealand. It is recognised that both Chop-chop and illicit RYO originate from both Non-Domestic and Domestic home-grown sources; however it is not possible to separate the two, and therefore for the purposes of this Report we consider all Chop-chop and illicit RYO volumes to be of Non-Domestic origin.

Executive Summary: Illicit Consumption

- An estimated 16.1% of all cigarettes consumed across sixteen Asian markets were illicit in 2016. This is equivalent to around 131.2 billion illicit non-tax-paid cigarettes consumed.
- Illicit Consumption was concentrated in five markets: Indonesia, Malaysia, Pakistan, Philippines, and Vietnam. Together, these markets accounted for over 92% of total Illicit Consumption in 2016. By contrast, the same five markets accounted for around 75% of Total Consumption.
- Illicit Incidence was estimated to be higher than 10% in 10 markets: Australia, Hong Kong, Indonesia, Laos, Macao, Malaysia, Pakistan, Philippines, Singapore, and Vietnam.
- Indonesia was the largest market covered in this Report, and with an estimated Illicit Incidence of 12.2%, it accounted for nearly one-third of Total Illicit Consumption across the sixteen markets in this Report.
- Domestic Illicit cigarettes accounted for 9.4% of Total Consumption across the sixteen markets in 2016. This is equivalent to an estimated 76.9 billion Domestic Illicit cigarettes consumed.
- Domestic Illicit Consumption is almost entirely concentrated in three markets – Indonesia, Philippines, and Pakistan. In these markets, it accounts for over 70% of total Illicit Consumption. In Philippines, our estimates suggest the volume of Domestic Illegal Consumption fell by 14% in 2016, while in Indonesia it was broadly stable, and in Pakistan it rose by 31%.
- Non-Domestic Illicit Consumption was estimated at 54.3 billion cigarettes in 2016, equivalent to 6.7% of Total Consumption in the sixteen markets. Three markets accounted for more than three-quarters of Non-Domestic Illicit Inflows: Malaysia, Pakistan, and Vietnam.
- In addition to increased Domestic Illicit, Pakistan also experienced a sharp rise in Non-Domestic Illicit Inflows in 2016. As a consequence, total Illicit Consumption rose by 40.7% to 37.9 billion cigarettes.
- In Vietnam, Non-Domestic Illicit Inflows were estimated at 22.7 billion in 2016, equivalent to 22.2% of Total Consumption. In Vietnam, Illicit Inflows continued to be dominated by two Unspecified Market Variant Brands “Jet” and “Hero”.¹
- In Malaysia, Non-Domestic Illicit Inflows rose by nearly 50% in 2016, with the South and East Coast states experiencing the largest increases in estimated incidence levels. Illicit consumption was estimated at 9.6 billion cigarettes, equivalent to 52.3% of Total Consumption. One in every two cigarettes consumed in Malaysia were therefore of illicit origin in 2016.
- Illicit Incidence rose in eight markets in 2016: Indonesia, Macao, Malaysia, New Zealand, Pakistan, South Korea, Taiwan, and Thailand. The rise was most pronounced in Macao, where Illicit Incidence increased by more than 20pp to 49.1% in 2016.

Composition of cigarette consumption in 16 Asian markets

| | 2016 | |
|-------------------------------------------|---------------|--------------|
| | Cigarettes bn | % |
| Legal Domestic Consumption (LDC) | 680.2 | 83.4 |
| Legal Domestic Sales (LDS) | 682.2 | – |
| Outflows of domestic duty-paid cigarettes | -2.0 | – |
| Total Non-Domestic Inflows (ND) | 58.6 | 7.2 |
| Non-Domestic Legal (NDL) | 4.3 | 0.5 |
| Non-Domestic Illicit | 54.3 | 6.7 |
| Domestic Illicit | 76.9 | 9.4 |
| Total Consumption | 815.7 | 100.0 |
| Total Illicit Consumption | 131.2 | 16.1 |

¹Unspecified Market Variant refers to cigarette packs that do not bear specific market labelling or Duty-Free labelling. As such the intended market is not known.

Executive Summary: Map of Asia Illicit Tobacco Indicator markets



-  Red indicates markets that had estimated shares of Illicit Consumption in Total Consumption > 10% in 2016
-  Dark blue indicates remaining Asia Illicit Tobacco Indicator markets.
-  Grey stripe indicates ASEAN markets

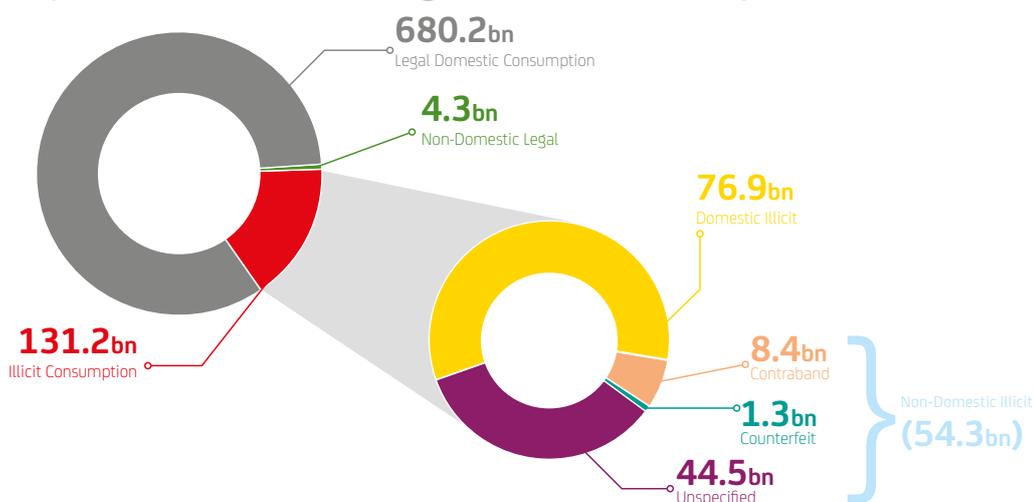
Source: Oxford Economics

Executive Summary:

Composition of Illicit Consumption

- Non-Domestic Illicit Consumption** – Non-Domestic Illicit Consumption is composed of Unspecified Market Variant, Contraband, and Counterfeit cigarettes:¹
 - Non-Domestic Illicit with Unspecified Market Variant** – Non-Domestic Illicit Inflows are primarily composed of Unspecified Market Variant products, which accounted for 34% of Total Illicit Consumption in 2016. In Vietnam alone, over 20 billion Non-Domestic Illicit cigarettes of Unspecified Market Variant were consumed, while large volumes were also identified in Malaysia (9.6 billion) and Pakistan (9.9 billion). Indeed, Unspecified Market Variant products were identified in all sixteen markets covered by this Report, and were the primary source of Illicit Consumption in Cambodia, Vietnam, Malaysia, Taiwan, and Australia – where it accounted for in excess of 65% of the total illicit market.
 - The total estimated volume of Unspecified Market Variant consumption increased in 2016 to 44.5 billion cigarettes compared with 35.8 billion in 2015. The top Unspecified Market Variant brands identified in 2016 include Jet, Hero, Pine, Era, John, and Gudang Garam.
 - Contraband** – Contraband cigarettes were identified in most markets in 2016, but only made up 6.4% of total Illicit Consumption across the sixteen markets. Despite this, Contraband was the primary source of Illicit Consumption in six markets in 2016: Hong Kong, Macao, Malaysia, New Zealand, Singapore, and South Korea, where it accounted for more than three-quarters of total Illicit Consumption. More than 1 billion Contraband cigarettes were estimated to have been consumed in three markets: Hong Kong, South Korea, and Vietnam.
 - Counterfeit**² – Philippines was the largest market for Counterfeit consumption in 2016, with an estimated 997 million Counterfeit cigarettes consumed in 2016. This represented over three-quarters of total Counterfeit consumption across the sixteen markets covered in this Report. Thailand was the second-largest market, with an estimated 189 million Counterfeit cigarettes consumed, while smaller volumes were also identified in Australia (65 million) and Hong Kong (43 million). Counterfeit Consumption was the smallest component of Illicit Consumption across the sixteen markets in 2016.
- Domestic Illicit** – Domestically made non-tax-paid cigarettes were identified in three markets: Indonesia, Pakistan, and Philippines. The largest volume was identified in Indonesia, where an estimated 39.7 billion Domestic Illicit cigarettes were consumed in 2016, equivalent to 12.1% of Total Consumption. In Pakistan, nearly one in three cigarettes consumed in 2016 was Domestic Illicit, a sharp increase in comparison with 2015, when it was less than one in four. In the Philippines, the share of Domestic Illicit was relatively stable at 11.8% in 2016, equivalent to 9.9 billion cigarettes. Despite being present in only three markets, Domestic Illicit Consumption represents the largest component of Total Illicit Consumption in aggregate. The total estimated volume of Domestic Illicit Consumption increased in 2016 to 76.9 billion cigarettes compared with 70.5 billion in 2015.

Composition of illicit cigarette consumption 2016



Source: Oxford Economics

¹Non-Domestic Illicit with Unspecified Market Variant includes Australian Chop-chop (unbranded loose tobacco) and illicit RYO illicit consumption in New Zealand. It is recognised that both Chop-chop and illicit RYO originate from both Non-Domestic and Domestic home-grown sources; however it is not possible to separate the two, and therefore for the purposes of this Report we consider all Chop-chop and illicit RYO volumes to be of Non-Domestic origin.

²Note that Counterfeit estimates result solely from Empty Pack Surveys (and a consumer survey in Taiwan). Packs of PM brands were analysed for authenticity in all the markets, whereas packs of other participating companies were also analysed in Australia, Hong Kong, Malaysia, Singapore, and Taiwan. As such, Total Counterfeit volumes could be underestimated as the analysis only includes those identified by participating companies.

Executive Summary: Government Finances¹

The Tax Loss associated with illicit tobacco in 2016 was estimated at USD 5.6 billion across the sixteen markets in this Report.

- Over 70% of the estimated Tax Loss was concentrated in four markets; Australia, Indonesia, Pakistan, and Malaysia.
- In Malaysia and Pakistan, the estimated Tax Loss increased significantly in 2016 (by 94.4% and 69.7%, respectively). Both markets also experienced a substantial increase in the volume of illicit cigarettes consumed in 2016.
- In Malaysia, the near doubling in the estimated Tax Loss in 2016 reverses a recent declining trend evident since the first Asia Illicit Tobacco Indicator Report in 2012. In Pakistan, the 2016 Tax Loss was more than three times larger in nominal terms compared with 2012.
- In Australia, the Tax Loss increased by 1.9% to USD 1.3 billion in 2016 despite a decline in estimated Illicit Consumption. This was underpinned by a increase in the weighted average Excise Tax rate of more than 30% for both manufactured cigarettes and RYO.
- The estimated Tax Loss in Indonesia rose by a more modest 6.0% in 2016 while Illicit Consumption remained stable in comparison with the previous year.
- In total, the estimated Tax Loss rose in eleven of the sixteen markets in this Report, with Macao, Myanmar, New Zealand, South Korea, Taiwan, and Thailand also experiencing a higher Tax Loss in 2016.
- In the remaining five markets, Cambodia, Hong Kong, Laos, Philippines, and Singapore, the estimated Tax Loss fell by between 5% and 60% in comparison with 2015. All five markets experienced a corresponding decline in the volume of illicit cigarettes consumed over the same period.

¹Estimates presented here are on a calendar year basis, and therefore may differ from those presented in the individual market reports, which are based on fiscal year data (where applicable).

Executive Summary: Dashboard

| % of Total Consumption unless otherwise stated | Total 2016 | Australia ¹ | | | | | Brunei | | | | | Cambodia | | | | |
|------------------------------------------------|------------|------------------------|-------|-------|-------|-------|--------|------|------|-------|------|----------|-------|------|-------|-------|
| | | 2012 | 2013 | 2014 | 2015 | 2016 | 2012 | 2013 | 2014 | 2015 | 2016 | 2012 | 2013 | 2014 | 2015 | 2016 |
| Legal Domestic Sales (LDS) | 83.9 | 88.7 | 86.5 | 85.6 | 86.1 | 86.8 | 10.3 | 2.4 | 0.1 | - | NA | - | 100.4 | 99.2 | 101.4 | 107.1 |
| Outflows of domestic duty-paid cigarettes | 0.3 | - | - | - | 0.3 | 0.3 | - | - | - | - | NA | - | 5.8 | 4.6 | 9.0 | 10.0 |
| Legal Domestic Consumption (LDC) | 83.7 | 88.7 | 86.5 | 85.6 | 85.8 | 86.5 | 10.3 | 2.4 | 0.1 | - | NA | - | 94.6 | 94.6 | 92.3 | 97.0 |
| Total Non-Domestic Inflows (ND) | 7.1 | 11.3 | 13.5 | 14.4 | 14.2 | 13.5 | 89.7 | 97.6 | 99.9 | 100.0 | NA | - | 5.4 | 5.4 | 7.7 | 3.0 |
| Non-Domestic Legal (NDL) | 0.5 | 0.4 | 0.4 | 0.5 | 0.6 | 0.5 | - | - | - | - | NA | - | 0.5 | 0.3 | 0.9 | - |
| Non-Domestic Illicit | 6.6 | 10.9 | 13.0 | 13.9 | 13.6 | 13.0 | 89.7 | 97.6 | 99.9 | 100.0 | NA | - | 4.9 | 5.0 | 6.8 | 3.0 |
| Contraband | 1.0 | 2.5 | 5.2 | 5.8 | 5.5 | 4.3 | 20.0 | 22.0 | - | 22.7 | NA | - | - | 0.2 | 0.9 | - |
| Counterfeit | 0.2 | 0.3 | 0.8 | 0.0 | 0.2 | 0.3 | - | - | - | - | NA | - | - | - | - | - |
| Non-Domestic with Unspecified Market | 5.4 | 8.1 | 7.1 | 8.0 | 7.9 | 8.4 | 69.6 | 75.6 | 99.9 | 77.3 | NA | - | 4.9 | 4.9 | 5.9 | 3.0 |
| Domestic Illicit | 9.2 | - | - | - | - | - | - | - | - | - | NA | - | - | - | - | - |
| Total Illicit Consumption | 15.8 | 10.9 | 13.0 | 13.9 | 13.6 | 13.0 | 89.7 | 97.6 | 99.9 | 100.0 | NA | - | 4.9 | 5.0 | 6.8 | 3.0 |
| Total Consumption (cigarettes bn) | 807.5 | 24.7 | 24.8 | 23.1 | 22.2 | 21.4 | 0.4 | 0.3 | 0.3 | 0.3 | NA | - | 8.2 | 8.5 | 8.5 | 8.0 |
| Total Tax Loss ² (USD mn) | 5,514 | 1,150 | 1,293 | 1,407 | 1,300 | 1,324 | 63.1 | 62.0 | 63.9 | 59.9 | NA | - | 1.2 | 1.4 | 2.1 | 0.9 |



Increasing trend from previous year³



Declining trend from previous year³

Source: Oxford Economics

¹For Australia, Legal Domestic Sales includes loose tobacco, and Non-Domestic Illicit and Tax Loss estimates include Chop-chop (unbranded loose tobacco). A conversion rate of 0.8 grams per cigarette was applied to turn loose tobacco weight into cigarette equivalent, based on the rate applied by the Australian Taxation Office.

²Calendar year, expressed in current exchange rates.

³Confined to Illicit Consumption and Tax Loss estimates only.

| % of Total Consumption unless otherwise stated | Hong Kong | | | | | Indonesia | | | | | Laos | | | | | Macao | | | | |
|------------------------------------------------|-----------|-------|-------|-------|-------|-----------|-------|-------|-------|-------|------|------|------|------|------|-------|------|------|------|------|
| | 2012 | 2013 | 2014 | 2015 | 2016 | 2012 | 2013 | 2014 | 2015 | 2016 | 2012 | 2013 | 2014 | 2015 | 2016 | 2012 | 2013 | 2014 | 2015 | 2016 |
| Legal Domestic Sales (LDS) | 56.8 | 58.6 | 66.2 | 64.5 | 65.7 | 91.5 | 89.4 | 88.1 | 88.0 | 87.9 | - | 82.7 | 82.6 | 74.2 | 88.9 | - | - | 50.9 | 56.5 | 39.7 |
| Outflows of domestic duty-paid cigarettes | 0.1 | - | 2.5 | 1.6 | 0.4 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | - | 0.3 | 0.3 | 0.4 | 3.8 | - | - | 2.2 | 2.6 | 2.7 |
| Legal Domestic Consumption (LDC) | 56.7 | 58.6 | 63.7 | 62.8 | 65.3 | 91.3 | 89.3 | 88.0 | 87.8 | 87.8 | - | 82.3 | 82.3 | 73.8 | 85.1 | - | - | 48.6 | 53.9 | 36.9 |
| Total Non-Domestic Inflows (ND) | 43.3 | 41.4 | 36.3 | 37.2 | 34.7 | 0.3 | 0.7 | 0.3 | 0.2 | 0.1 | - | 17.7 | 17.7 | 26.2 | 14.9 | - | - | 51.4 | 46.1 | 63.1 |
| Non-Domestic Legal (NDL) | 7.4 | 7.9 | 8.3 | 8.0 | 7.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | - | 8.2 | 8.9 | 7.2 | 3.8 | - | - | 16.8 | 18.1 | 13.9 |
| Non-Domestic Illicit | 35.9 | 33.6 | 28.0 | 29.1 | 27.5 | 0.1 | 0.5 | 0.1 | 0.1 | 0.0 | - | 9.5 | 8.8 | 19.0 | 11.1 | - | - | 34.5 | 28.0 | 49.1 |
| Contraband | 28.6 | 28.4 | 25.3 | 26.1 | 24.34 | 0.0 | 0.5 | 0.1 | - | - | - | 7.0 | 6.6 | 13.2 | 3.71 | - | - | 29.4 | 26.8 | 46.1 |
| Counterfeit | 4.0 | 2.9 | 1.8 | 1.1 | 0.8 | 0.1 | - | - | - | - | - | 0.7 | 0.7 | 0.1 | 0.1 | - | - | 0.9 | 0.1 | - |
| Non-Domestic with Unspecified Market | 3.2 | 2.3 | 1.0 | 1.9 | 2.3 | - | - | 0.0 | 0.1 | 0.0 | - | 1.8 | 1.5 | 5.7 | 7.3 | - | - | 4.2 | 1.1 | 3.0 |
| Domestic Illicit | - | - | - | - | - | 8.5 | 10.1 | 11.7 | 11.9 | 12.1 | - | - | - | - | - | - | - | - | - | - |
| Total Illicit Consumption | 35.9 | 33.6 | 28.0 | 29.1 | 27.5 | 8.6 | 10.6 | 11.8 | 12.0 | 12.2 | - | 9.5 | 8.8 | 19.0 | 11.1 | - | - | 34.5 | 28.0 | 49.1 |
| Total Consumption (cigarettes bn) | 5.1 | 5.4 | 4.8 | 5.1 | 5.1 | 310.0 | 318.9 | 325.3 | 331.5 | 326.8 | - | 2.9 | 3.0 | 3.4 | 3.0 | - | - | 1.1 | 0.8 | 0.7 |
| Total Tax Loss ⁴ (USD mn) | 405.3 | 395.5 | 315.5 | 363.3 | 342.3 | 394.8 | 582.0 | 699.9 | 713.8 | 761.1 | - | 2.4 | 2.3 | 5.8 | 4.9 | - | - | 23.1 | 25.7 | 67.7 |



Increasing trend from previous year⁵



Declining trend from previous year⁵

Source: Oxford Economics

⁴Calendar year, expressed in current exchange rates.

⁵Confined to Illicit Consumption and Tax Loss estimates only.

Executive Summary: Dashboard

| % of Total Consumption unless otherwise stated | Malaysia | | | | | Myanmar | | | | | New Zealand ⁶ | | | | | Pakistan | | | | |
|------------------------------------------------|----------|-------|-------|-------|---------|---------|------|------|------|------|--------------------------|------|------|------|-------|----------|-------|-------|-------|-------|
| | 2012 | 2013 | 2014 | 2015 | 2016 | 2012 | 2013 | 2014 | 2015 | 2016 | 2012 | 2013 | 2014 | 2015 | 2016 | 2012 | 2013 | 2014 | 2015 | 2016 |
| Legal Domestic Sales (LDS) | 63.4 | 61.3 | 64.3 | 62.7 | 45.8 | - | 76.3 | 96.3 | 97.9 | 98.9 | - | - | - | 99.5 | 93.5 | 74.4 | 77.2 | 74.6 | 68.6 | 56.2 |
| Outflows of domestic duty-paid cigarettes | 1.0 | 1.0 | 1.1 | 1.2 | 0.9 | - | - | - | 0.3 | 0.2 | - | - | - | 5.9 | 3.4 | - | 0.0 | 0.0 | 0.0 | 0.0 |
| Legal Domestic Consumption (LDC) | 62.4 | 60.3 | 63.2 | 61.6 | 45.0 | - | 76.3 | 96.3 | 97.6 | 98.7 | - | - | - | 93.6 | 90.0 | 74.4 | 77.1 | 74.6 | 68.6 | 56.2 |
| Total Non-Domestic Inflows (ND) | 37.6 | 39.7 | 36.8 | 38.4 | 55.0 | - | 23.7 | 3.7 | 2.4 | 1.3 | - | - | - | 6.4 | 10.0 | 3.7 | 4.3 | 4.3 | 7.2 | 12.4 |
| Non-Domestic Legal (NDL) | 3.1 | 4.1 | 3.1 | 1.5 | 2.7 | - | 1.7 | 2.4 | 1.9 | 0.8 | - | - | - | 1.1 | 0.9 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 |
| Non-Domestic Illicit | 34.5 | 35.6 | 33.7 | 36.9 | 52.3 | - | 22.0 | 1.3 | 0.6 | 0.5 | - | - | - | 5.2 | 9.0 | 3.5 | 4.2 | 4.2 | 7.1 | 12.3 |
| Contraband | - | - | - | - | - | - | 14.8 | 0.9 | 0.3 | 0.41 | - | - | - | 4.8 | 6.7 | 0.3 | 0.4 | 0.5 | 1.1 | 0.90 |
| Counterfeit | - | - | - | - | - | - | 0.2 | - | 0.1 | - | - | - | - | - | - | 0.0 | 0.1 | 0.1 | 0.0 | - |
| Non-Domestic with Unspecified Market | 34.6 | 35.6 | 33.7 | 36.9 | 52.3 | - | 7.1 | 0.3 | 0.2 | 0.1 | - | - | - | 0.4 | 2.3 | 3.0 | 3.7 | 3.6 | 6.0 | 11.4 |
| Domestic Illicit | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 21.9 | 18.6 | 21.1 | 24.2 | 31.5 |
| Total Illicit Consumption | 34.5 | 35.6 | 33.7 | 36.9 | 52.3 | - | 22.0 | 1.3 | 0.6 | 0.5 | - | - | - | 5.2 | 9.0 | 25.4 | 22.8 | 25.2 | 31.3 | 43.7 |
| Total Consumption (cigarettes bn) | 22.9 | 21.9 | 19.9 | 17.8 | 18.3 | - | 10.4 | 9.1 | 9.1 | 8.6 | - | - | - | 2.6 | 2.6 | 86.0 | 82.6 | 84.0 | 86.0 | 78.5 |
| Total Tax Loss ⁷ (USD mn) | 622.0 | 623.5 | 577.1 | 561.7 | 1,028.2 | - | 13.0 | 0.7 | 0.4 | 0.4 | - | - | - | 70.2 | 128.3 | 260.5 | 230.4 | 315.7 | 480.9 | 816.0 |



Increasing trend from previous year⁸



Declining trend from previous year⁸

Source: Oxford Economics

⁶For New Zealand, Legal Domestic Sales includes loose tobacco, and Non-Domestic Illicit and Tax Loss estimates include illicit RYO. A conversion rate of 0.7 grams per cigarette was applied to turn loose tobacco weight into cigarette equivalent, based on the rate applied by the New Zealand Ministry of Health in their analysis of annual tobacco returns. It is recognised that illicit RYO originates from both Non-Domestic and Domestic home-grown sources; however it is not possible to separate the two, and therefore for the purposes of this Report we consider all illicit RYO volumes to be of Non-Domestic origin.

⁷Calendar year, expressed in current exchange rates.

⁸Confined to Illicit Consumption and Tax Loss estimates only.

| % of Total Consumption unless otherwise stated | Philippines | | | | | Singapore | | | | | South Korea | | | | |
|------------------------------------------------|-------------|-------|-------|-------|-------|-----------|-------|-------|-------|-------|-------------|------|-------|------|-------|
| | 2012 | 2013 | 2014 | 2015 | 2016 | 2012 | 2013 | 2014 | 2015 | 2016 | 2012 | 2013 | 2014 | 2015 | 2016 |
| Legal Domestic Sales (LDS) | 94.1 | 81.8 | 80.5 | 86.4 | 87.0 | 74.4 | 80.4 | 86.1 | 86.1 | 88.9 | - | - | 100.0 | 97.8 | 96.4 |
| Outflows of domestic duty-paid cigarettes | 0.1 | 0.1 | 0.1 | 0.2 | 0.1 | - | 0.1 | 0.7 | 0.5 | 0.8 | - | - | 0.5 | 0.3 | 0.2 |
| Legal Domestic Consumption (LDC) | 94.0 | 81.8 | 80.4 | 86.2 | 86.9 | 74.4 | 80.4 | 85.4 | 85.6 | 88.0 | - | - | 99.5 | 97.5 | 96.2 |
| Total Non-Domestic Inflows (ND) | 0.4 | 2.0 | 1.0 | 1.9 | 1.3 | 25.6 | 19.6 | 14.6 | 14.4 | 12.0 | - | - | 0.5 | 2.5 | 3.8 |
| Non-Domestic Legal (NDL) | 0.1 | 0.1 | 0.1 | 0.4 | 0.1 | - | - | - | - | - | - | - | 0.4 | 1.6 | 1.5 |
| Non-Domestic Illicit | 0.3 | 1.8 | 0.9 | 1.5 | 1.2 | 25.6 | 19.6 | 14.6 | 14.4 | 12.0 | - | - | 0.1 | 0.9 | 2.3 |
| Contraband | - | - | 0.0 | 0.1 | - | 24.2 | 18.7 | 13.4 | 14.3 | 11.42 | - | - | 0.1 | 0.8 | 2.08 |
| Counterfeit | 0.2 | 1.8 | 0.7 | 1.4 | 1.2 | 0.0 | - | 0.1 | 0.0 | 0.1 | - | - | - | 0.0 | - |
| Non-Domestic with Unspecified Market | 0.1 | 0.1 | 0.1 | - | 0.1 | 1.4 | 0.9 | 1.1 | 0.1 | 0.5 | - | - | - | 0.0 | 0.2 |
| Domestic Illicit | 5.6 | 16.3 | 18.6 | 12.0 | 11.8 | - | - | - | - | - | - | - | - | - | - |
| Total Illicit Consumption | 5.9 | 18.1 | 19.4 | 13.5 | 13.1 | 25.6 | 19.6 | 14.6 | 14.4 | 12.0 | - | - | 0.1 | 0.9 | 2.3 |
| Total Consumption (cigarettes bn) | 108.7 | 105.5 | 102.3 | 96.7 | 83.9 | 3.6 | 3.5 | 3.3 | 3.3 | 3.1 | - | - | 89.4 | 68.8 | 76.4 |
| Total Tax Loss ⁹ (USD mn) | 61.9 | 367.5 | 506.3 | 393.9 | 367.4 | 277.9 | 202.7 | 159.0 | 144.2 | 114.9 | - | - | 8.3 | 93.4 | 251.5 |



Increasing trend from previous year¹⁰



Declining trend from previous year¹⁰

Source: Oxford Economics

⁹Calendar year, expressed in current exchange rates.

¹⁰Confined to Illicit Consumption and Tax Loss estimates only.

Executive Summary: Dashboard

| % of Total Consumption unless otherwise stated | Taiwan | | | | | Thailand | | | | | Vietnam | | | | |
|------------------------------------------------|--------|-------|-------|-------|-------|----------|------|------|------|------|---------|-------|-------|-------|-------|
| | 2012 | 2013 | 2014 | 2015 | 2016 | 2012 | 2013 | 2014 | 2015 | 2016 | 2012 | 2013 | 2014 | 2015 | 2016 |
| Legal Domestic Sales (LDS) | 89.9 | 89.7 | 91.8 | 93.5 | 93.2 | 95.7 | 96.5 | 99.2 | 97.7 | 97.2 | 80.1 | 78.8 | 77.4 | 76.2 | 77.1 |
| Outflows of domestic duty-paid cigarettes | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.0 | 0.1 | 0.2 | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.3 | 0.1 |
| Legal Domestic Consumption (LDC) | 89.9 | 89.7 | 91.7 | 93.4 | 93.2 | 95.7 | 96.4 | 99.0 | 97.6 | 97.1 | 80.0 | 78.6 | 77.2 | 76.0 | 76.9 |
| Total Non-Domestic Inflows (ND) | 10.1 | 10.3 | 8.3 | 6.6 | 6.8 | 4.3 | 3.6 | 1.0 | 2.4 | 2.9 | 20.0 | 21.4 | 22.8 | 24.0 | 23.1 |
| Non-Domestic Legal (NDL) | 2.4 | 1.6 | 1.9 | 1.3 | 1.4 | 1.4 | 1.3 | 0.3 | 0.5 | 0.4 | 0.6 | 0.8 | 0.8 | 0.8 | 0.8 |
| Non-Domestic Illicit | 7.7 | 8.7 | 6.4 | 5.3 | 5.5 | 2.9 | 2.3 | 0.7 | 1.9 | 2.5 | 19.4 | 20.7 | 22.0 | 23.2 | 22.2 |
| Contraband | 2.9 | 4.6 | 2.1 | 1.8 | 0.95 | 0.7 | 0.4 | 0.4 | 1.3 | 1.37 | 0.2 | 1.0 | 1.8 | 2.7 | 2.07 |
| Counterfeit | - | - | - | - | - | 0.6 | 0.6 | 0.2 | 0.5 | 0.6 | - | 0.0 | 0.0 | - | - |
| Non-Domestic with Unspecified Market | 4.8 | 4.2 | 4.4 | 3.5 | 4.5 | 1.6 | 1.3 | 0.0 | 0.0 | 0.6 | 19.2 | 19.7 | 20.2 | 20.5 | 20.2 |
| Domestic Illicit | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total Illicit Consumption | 7.7 | 8.7 | 6.4 | 5.3 | 5.5 | 2.9 | 2.3 | 0.7 | 1.9 | 2.5 | 19.4 | 20.7 | 22.0 | 23.2 | 22.2 |
| Total Consumption (cigarettes bn) | 39.5 | 39.6 | 38.2 | 35.3 | 36.2 | 40.5 | 39.4 | 37.6 | 38.6 | 32.9 | 103.4 | 102.9 | 97.5 | 98.1 | 102.1 |
| Total Tax Loss ¹¹ (USD mn) | 182.7 | 205.1 | 143.1 | 103.8 | 108.6 | 80.3 | 55.7 | 13.7 | 43.7 | 50.2 | 168.6 | 196.4 | 207.2 | 206.1 | 224.7 |



Increasing trend from previous year¹²



Declining trend from previous year¹²

Source: Oxford Economics

¹¹Calendar year, expressed in current exchange rates.

¹²Confined to Illicit Consumption and Tax Loss estimates only.

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