

Asia Illicit Tobacco Indicator 2017: Macao

Prepared by Oxford Economics
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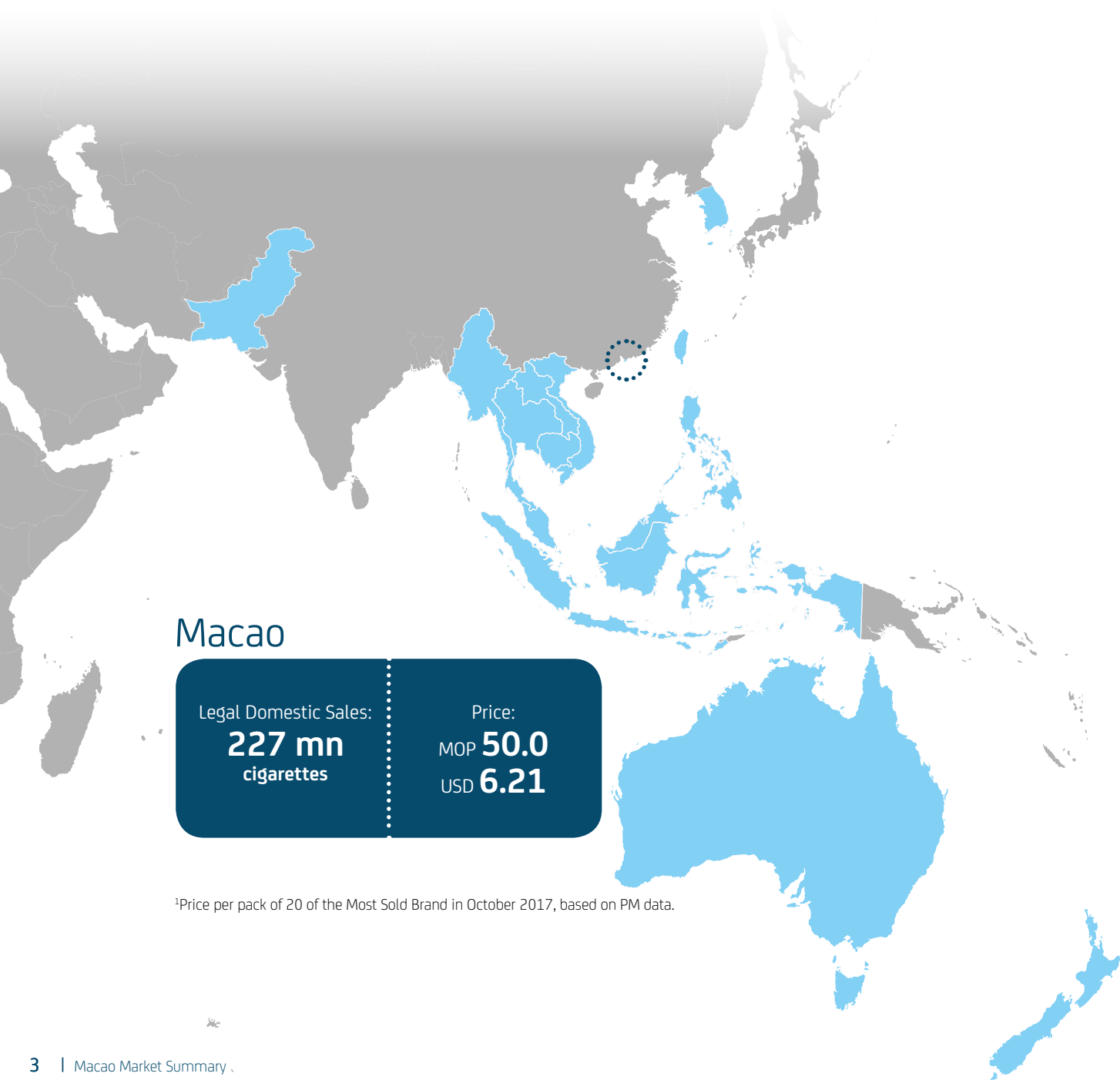
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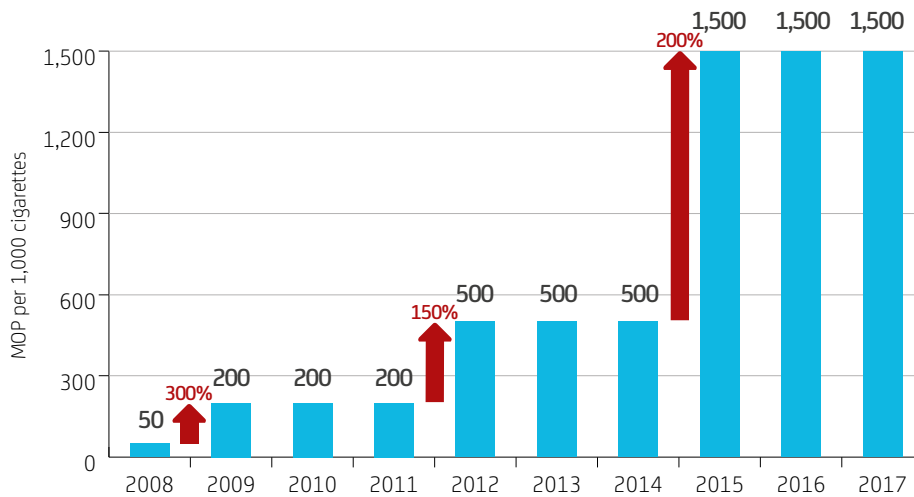
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Macao: Legal Domestic Sales

- Legal Domestic Sales continued to trend downwards in 2017, falling by an estimated 22.3% to 227 million cigarettes.
- In the four-year period during which the Macao market has been included in the Asia Illicit Tobacco Indicator research programme, Legal Domestic Sales have more than halved in volume from 545 million cigarettes in 2014.
- Cigarette prices were stable for the second consecutive year in 2017. The last price rise occurred in mid-2015 following the 200% hike in Excise Tax, leading to a 66.7% increase in price of the Most Sold Brand of cigarettes to the current level of MOP 50.0 (USD 6.21) per pack of 20.¹
- Compared with other neighbouring markets, cigarette prices remained around USD 1 below those in Hong Kong, based on a pack of 20 cigarettes, but were more expensive than China, where a pack of the Most Sold Brand of cigarettes cost USD 1.52 per pack in 2017.



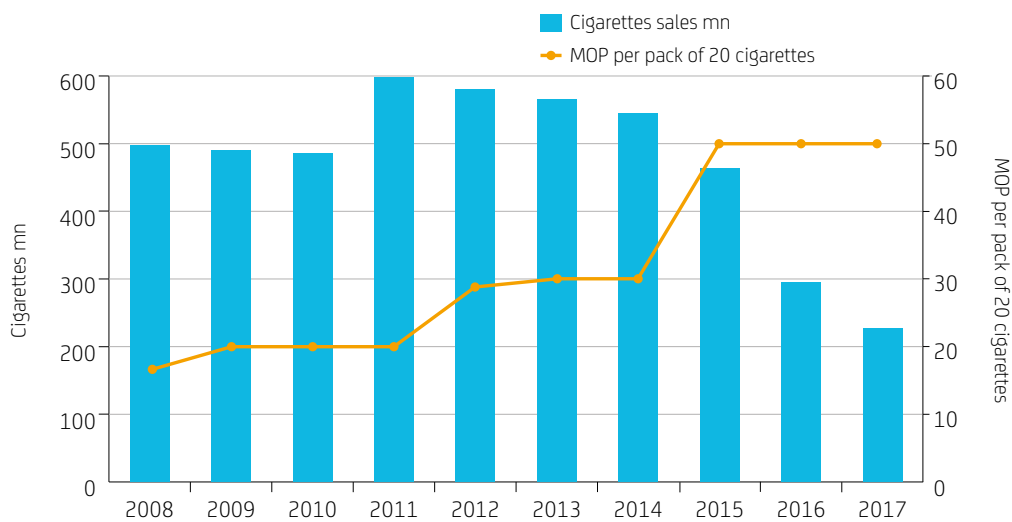
Macao: Excise duty applied to cigarettes²



Source: Macao government

²Rate applied in October of each year to the Most Sold Brand.

Macao: Legal Domestic Sales and prices³



Source: Oxford Economics based on PM data

³Price per pack of the Most Sold Brand in October of each year.

Macao: Cigarette Consumption

- The results from two Empty Pack Surveys conducted in 2017 and IMS data on Legal Domestic Sales were used to estimate Total Consumption of cigarettes in Macao.¹
- Total Consumption (legal and illicit) in Macao was estimated at 728 million cigarettes in 2017. Of this, an estimated 29.1% was composed of Legal Domestic Consumption, 15.2% was Non-Domestic Legal, and the remaining 55.7% was Non-Domestic Illicit.
- Despite a continued decline in Legal Domestic Sales, Total Consumption was broadly stable in 2017, falling by just 0.9% in comparison with the previous year, equivalent to a decline in volume of 6 million cigarettes.
- Instead, the 22.3% decline in Legal Domestic Sales was almost entirely offset by a rise in Non-Domestic Inflows, with the Empty Pack Surveys indicating a rise in Non-Domestic Incidence to 70.9% in 2017, up from 63.1% in 2016.
- The increase in Non-Domestic Inflows was underpinned by both rising legal and illicit cigarettes.
- Legal Inflows rose by 8.2% in 2017 to 111 million cigarettes, driven primarily by the growth of 5.3% in inbound visitors arriving from Mainland China.² This remained significantly below 2014 levels, however, following the passage of the Tobacco Control Bill in July 2015, which included a reduction in the passenger duty-free personal import allowances from 100 cigarettes per passenger to 19 cigarettes.
- Illicit Inflows rose by 12.4% to 406 million cigarettes – meaning that more than one in every two cigarettes consumed in 2017 were of illicit origin – the highest level recorded by the Asia Illicit Tobacco Indicator in four years covering the Macao market. This pushed the Illicit Incidence level above 55%, making Macao the highest-ranked market in the Asia Illicit Tobacco Indicator by Illicit Incidence levels.

Macao: Composition of cigarette consumption

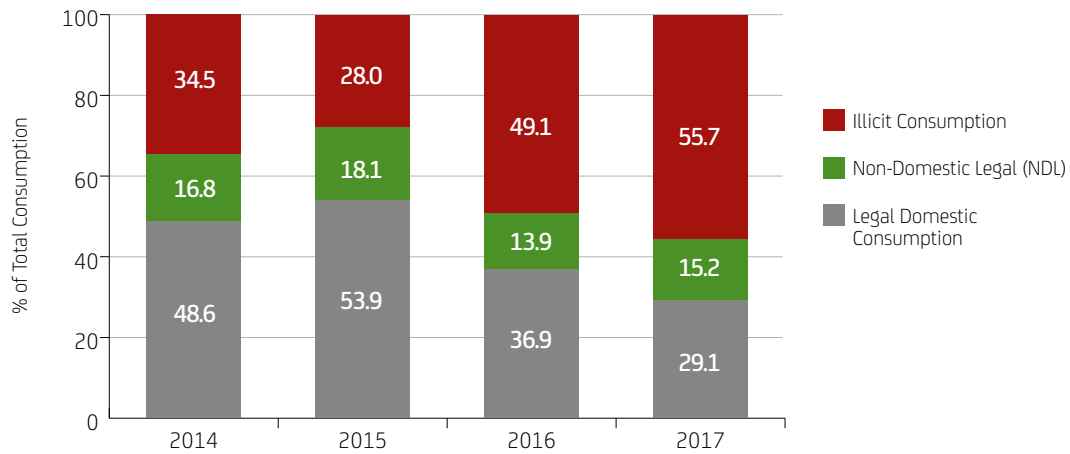
	2014		2015		2016		2017		% change 2016-17
	Cigarettes bn	%	Cigarettes bn	%	Cigarettes bn	%	Cigarettes bn	%	
Legal Domestic Consumption (LDC)	0.5	48.6	0.4	53.9	0.3	36.9	0.2	29.1	-21.9
Legal Domestic Sales (LDS)	0.5	—	0.5	—	0.3	—	0.2	—	-22.3
Outflows of domestic duty-paid cigarettes	-0.0	—	-0.0	—	-0.0	—	-0.0	—	-27.2
Total Non-Domestic Inflows (ND)	0.6	51.4	0.4	46.1	0.5	63.1	0.5	70.9	11.4
Non-Domestic Legal (NDL)	0.2	16.8	0.1	18.1	0.1	13.9	0.1	15.2	8.2
Non-Domestic Illicit	0.4	34.5	0.2	28.0	0.4	49.1	0.4	55.7	12.4
Domestic Illicit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n/a
Total Consumption	1.1	100.0	0.8	100.0	0.7	100.0	0.7	100.0	-0.9
Total Illicit Consumption	0.4	34.5	0.2	28.0	0.4	49.1	0.4	55.7	12.4

Source: Oxford Economics

¹The Empty Pack Surveys were undertaken in 2017 Q2 and 2017 Q4. See Report methodology for more details.

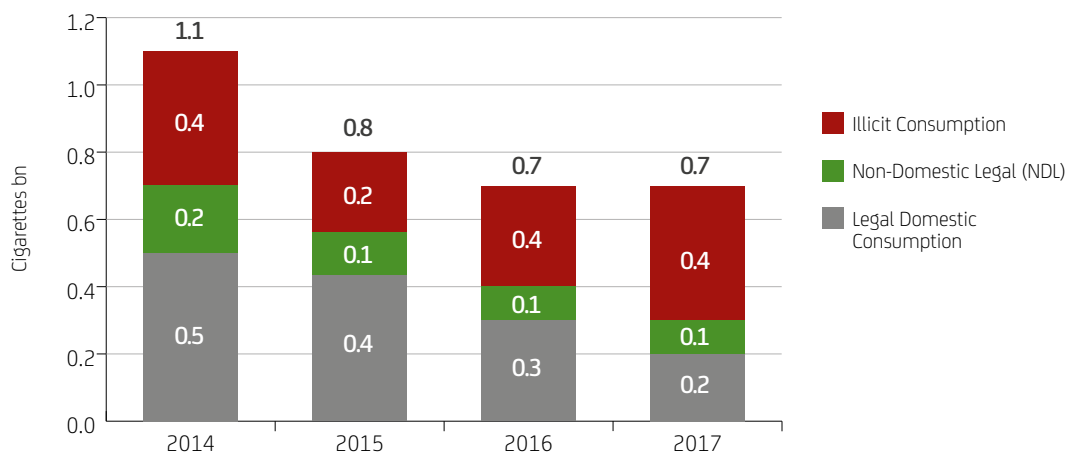
²Estimated using passenger data, Smoking Prevalence in tourists' country/market of origin, and the passenger duty-free personal import allowance limit.

Macao: Composition of cigarette consumption (% of Total Consumption)



Source: Oxford Economics

Macao: Composition of cigarette consumption (number of cigarettes)



Source: Oxford Economics

Macao: Government Finances

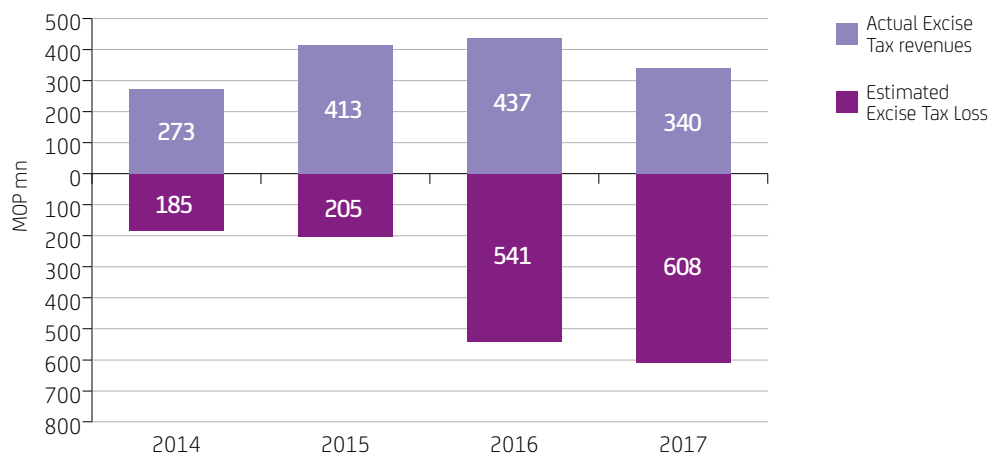
- Macao operates a single unit-specific Excise Tax system with a rate of MOP 1,500 per 1,000 cigarettes. There is no VAT or GST in place in Macao.
- The passage of the Tobacco Control Bill in July 2015 saw the Excise Tax rate increase from MOP 500 to MOP 1,500 per 1,000 cigarettes. This was equivalent to a 200% increase in the rate of Excise Tax, and was the first tax increase implemented since late 2011.
- The Tax Loss due to Illicit Consumption of cigarettes was estimated to have risen to a record high of MOP 608 million (USD 75.8 million) in 2017, representing a 12.4% increase from 2016.
- Since 2014 – when Macao was first included in the Asia Illicit Tobacco Indicator – the estimated Tax Loss from Illicit Consumption has experienced a more than threefold increase.
- With estimated actual revenues from excise duties on tobacco also falling over this period – as the legal market has been squeezed – lost revenues resulting from Illicit Consumption now account for nearly two-thirds of total potential Excise Tax revenues.

Macao: Actual government revenues and estimated Tax Loss

	2014		2015		2016		2017		% change in local currency 2016-2017
	MOP mn	USD mn	MOP mn	USD mn	MOP mn	USD mn	MOP mn	USD mn	
Actual revenue from excise duties on tobacco	273	34.1	413	51.7	437	54.7	340	42.3	-22.3%
Estimated number of illicit cigarettes purchased (cigarettes mn)	370		230		361		406		12.4%
Estimated Tax Loss from Illicit Consumption	185	23.1	205	25.7	541	67.7	608	75.8	12.4%
Lost excise revenue	185	23.1	205	25.7	541	67.7	608	75.8	12.4%
Excise Tax Loss as % of potential total Excise Tax revenues	40.4%		33.2%		55.3%		64.2%		

Source: Oxford Economics based on PM data

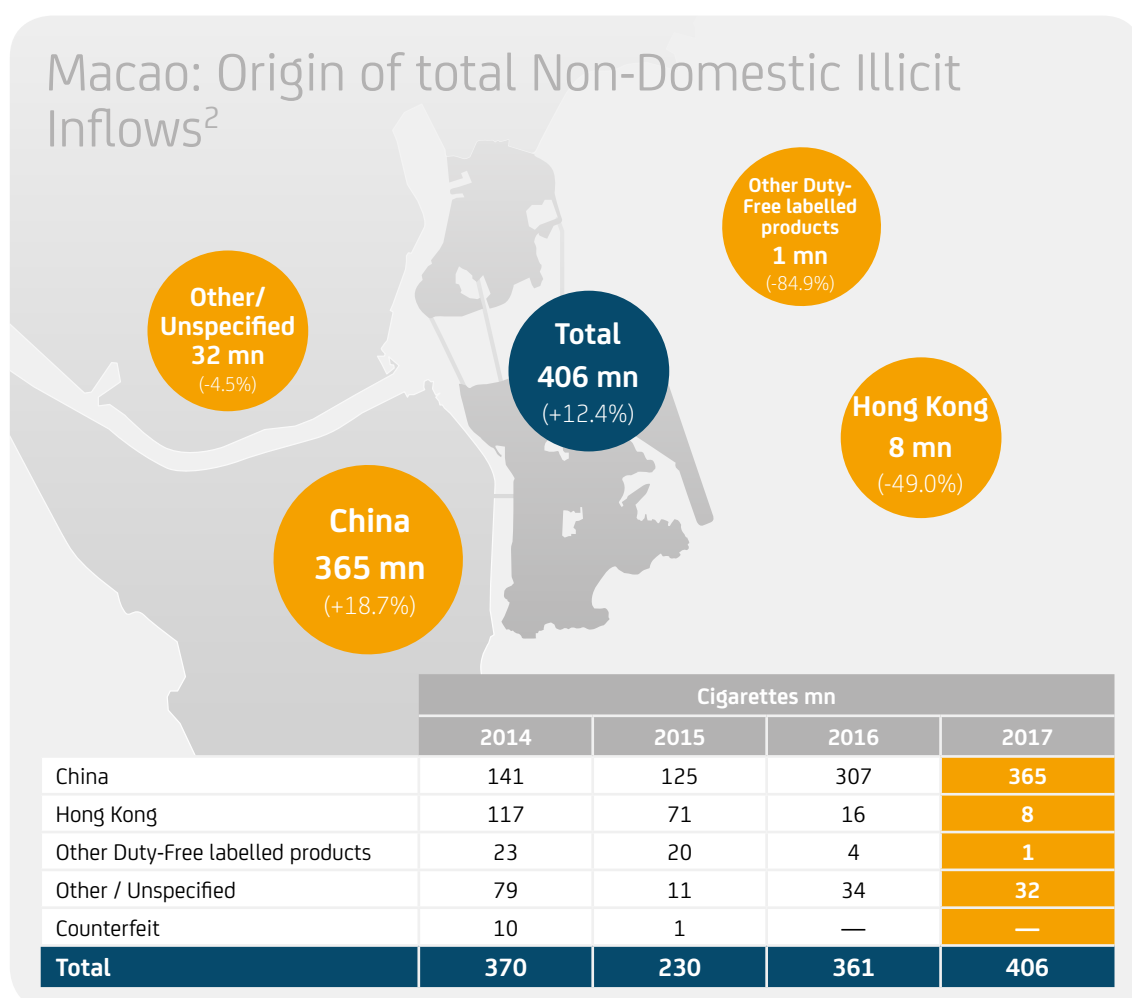
Macao: Actual government revenues and estimated Excise Tax Loss



Source: Oxford Economics based on PM data

Macao: Trade Flows

- The majority of cigarettes consumed in Macao originate through Non-Domestic channels. Given the extremely active border with China, over 32.6 million people travelled to Macao in 2017 (equivalent to more than 50 times the population), nearly 90% of whom originated from China and Hong Kong.
- Non-Domestic Inflows have significantly increased in recent years, however, partially offsetting a sharp decline in Legal Domestic Consumption. In 2017, an estimated 70.9% of Total Consumption was Non-Domestic, up from 51.4% in 2014, the first year that Macao was included in the Asia Illicit Tobacco Indicator research programme.
- Of the 516 million non-domestic cigarettes consumed in 2017, around four in every five were estimated to have arrived through illicit channels, equivalent to an estimated 406 million cigarettes.
- Chinese illicit products remained highly prevalent in Macao in 2017. Nearly 90% of illicit cigarettes were identified as either China Duty-Free labelled or Chinese market variant products (i.e., designated for final retail sale in China). In total, Illicit Inflows from China rose by 18.7% compared with 2016.
- Other market variant cigarettes – including those of Unspecified Market Variant – declined by 4.5% in 2017, accounting for around 8% of all illicit cigarettes consumed in Macao in 2017, a slightly lower share compared with 2016.¹

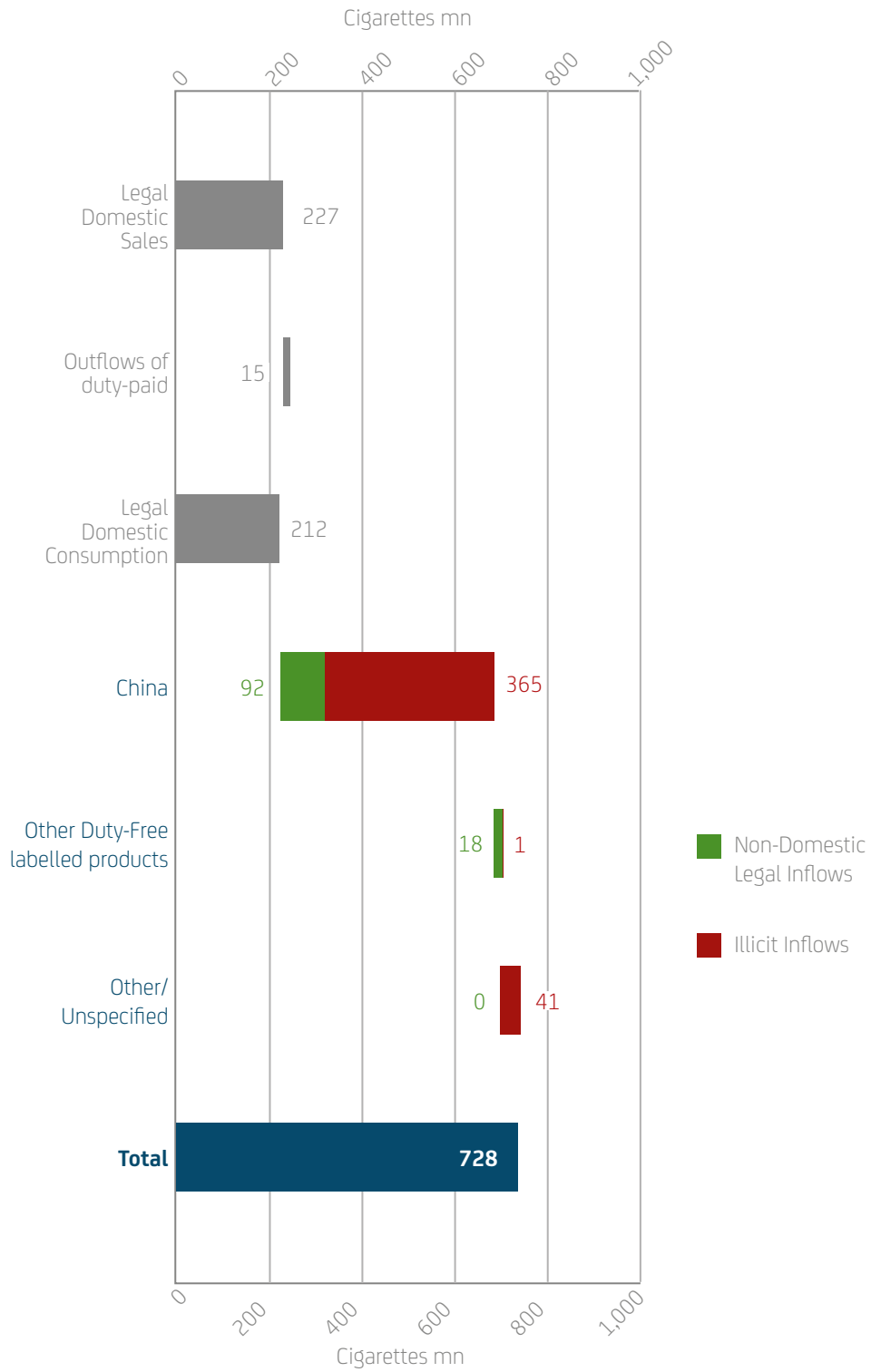


Source: IT Flows Model and Oxford Economics

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. “Double Happiness” and “Esse” were the primary Unspecified Market Variant brands identified in 2017.

²Figures in brackets reflect % change from 2016.

Macao: Consumption breakdown 2017

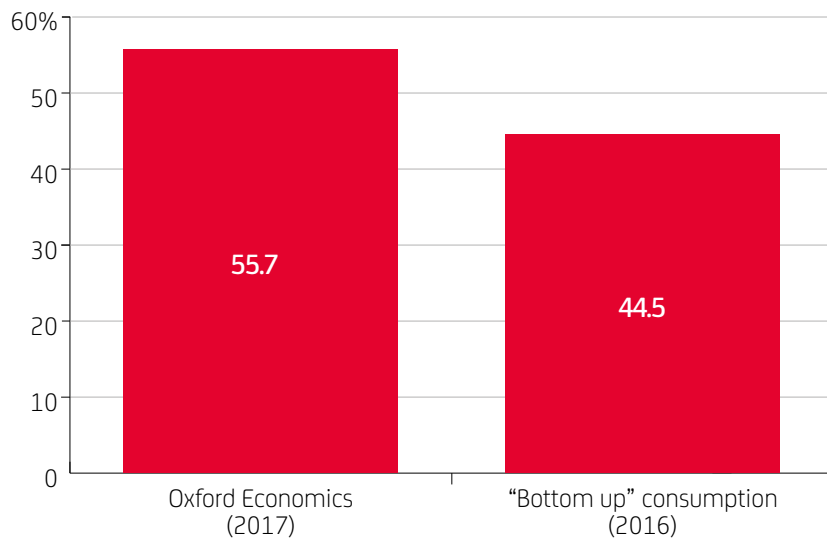


Source: IT Flows Model and Oxford Economics

Macao: Other Estimates

Source	Comment
Comparing consumption estimates with LDC ("bottom up" approach)	Using data on Smoking Prevalence and average daily consumption of cigarettes, plus UN population data, a "bottom up" estimate of cigarette consumption can be made which can then be compared with LDC. This approach yields an estimate for the Illicit Incidence of 44.5%, or around 217 million cigarettes (based on 2016 LDC). The source for Smoking Prevalence is the Macao Health Bureau, and average daily cigarette consumption comes from Consumer Survey data for 2013.

Macao: Alternative estimates of Illicit Consumption



Macao: Data Sources

	Primary source	Calculation	Comments
Legal Domestic Sales (LDS)	Actual shipments for PM brands and PM estimates for other manufacturers based on Nielsen Retail Audit.	—	—
Outflows of domestic duty-paid cigarettes	Empty Pack Survey data in other markets included in this report.	Empty Pack Survey data in other markets used to identify the presence of packs bearing Macao market-specific labelling (e.g., health warnings, tax stamps etc.).	Small number of Macao domestic Market Variant cigarettes identified in other markets, almost entirely going to Hong Kong.
Legal Domestic Consumption (LDC)	—	Legal Domestic Sales minus Outflows of legal sales.	Outflows of duty-paid cigarettes refer only to Outflows to other markets included in this Report.
Total Non-Domestic Inflows (ND)	—	Sum of Non-Domestic Legal and Non-Domestic Illicit.	—
Non-Domestic Legal (NDL)	—	Estimated using passenger data, smoking rates, and passenger duty-free personal import allowance.	Prior to reduction in the passenger duty-free personal import allowance in July 2015, inbound adult smokers were assumed to carry one pack (20 cigarettes) per day spent in Macao. Returning domestic adult smokers were assumed to carry the full passenger duty-free personal import allowance. Passenger data from the Macao Statistics and Census Service.
Non-Domestic Illicit	Empty Pack Surveys.	Based on Empty Pack Surveys plus OE estimates.	Estimates derived from the average of Empty Pack Surveys conducted in 2017 Q2 and 2017 Q4. See Report methodology for more details.
Domestic Illicit	—	Zero under-declaration of domestically produced cigarettes.	There is assumed to be no under-declaration of domestically produced cigarettes.
Total Illicit Consumption	—	Sum of Non-Domestic Illicit and Domestic Illicit.	—
Total Consumption	—	Legal Domestic Sales minus Outflows of domestic duty-paid cigarettes, plus estimated Non-Domestic Legal consumption, plus estimated Illicit Consumption.	The IT Flows Model estimate of consumption is 728 million cigarettes for 2017.
Total Tax Loss	—	Total Illicit Consumption multiplied by the weighted-average Excise Tax rate.	See Report methodology for more details.

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