



Illicit cigarette consumption in the EU, UK, Norway and Switzerland

2019 Results

18 June 2020



Important Notice

18 June 2020

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Glossary

Average daily consumption	Daily average consumption by the population of the legal smoking age
BAT	British American Tobacco plc
Bn	Billion
C&C	Counterfeit and Contraband, including Illicit Whites
CAGR	Compound Annual Growth Rate
Cigarette	Any factory-made product that contains tobacco and is intended to be burned under ordinary conditions of use
Cigarillos	A short, narrow cigar, which, like cigarettes, is often machine-made and sold in packs
Consumption	Actual total consumption of cigarettes in a market, including Legal Domestic Consumption (LDC) and illicit products as well as those legally purchased overseas
Contraband (CB)	Genuine products that have been either bought in a low-tax country and which exceed legal border limits or acquired without taxes for export purposes to be illegally re-sold (for financial profit) in a higher priced market
Counterfeit (CF)	Cigarettes that are illegally manufactured and sold by a party other than the original trademark owner. In this report, counterfeit volumes are reported from the participating manufacturers of BAT, ITL, JTI and PMI. No other counterfeit is included in the volumes reported due to lack of information
Country of origin	Country from which the packs collected are deemed to have originated. This is determined by either the tax stamp on the pack or in cases where the tax stamp is not shown, on the health warning and packaging characteristics
Duty Free	Cigarettes bought without payment of customs or excise duties. Consumers may buy Duty Free Cigarettes when travelling into or out of the EU (including Switzerland and Norway) by land, air or sea at legal Duty Free shops
EC	European Commission

Glossary

EU	European Union
EU Flows Calculation	The primary methodology for measuring consumption in a market. The methodology has been developed by KPMG on a bespoke basis for the specific purpose of measuring inflows and outflows of cigarettes in the scope of this project
EUTPD	European Union Tobacco Products Directive
FTZ	Free trade zone
Illicit Whites (IW)	Cigarettes that are usually manufactured legally in one country/market but which the evidence suggests have been smuggled across borders during their transit to the destination market under review where they have limited or no legal distribution and are sold without payment of tax
Illicit Whites with no country-specific labelling	Packs of Illicit White Cigarettes which have “duty free” or no identifiable labelling on the packs
IMS	In Market Sales (the primary source of legal domestic sales volumes)
Inflows	Inflows of non-domestic product into a market. Refer to the methodology section for further details
Outflows	Outflows of product from a market. For the purposes of the EU Flows Calculation, outflows are to other markets in the study. Refer to the methodology section for further details
ITL	Imperial Tobacco Limited
JTI	JT International SA
LDC	Legal Domestic Consumption is defined as Legal Domestic Sales (LDS) net of outflows
LDS	Legal Domestic Sales of genuine domestic product through legitimate, domestic channels based on In Market Sales (IMS) data
Mn	Million
MPPC	Most Popular Price Category
MYO	Make Your Own tobacco products

Glossary

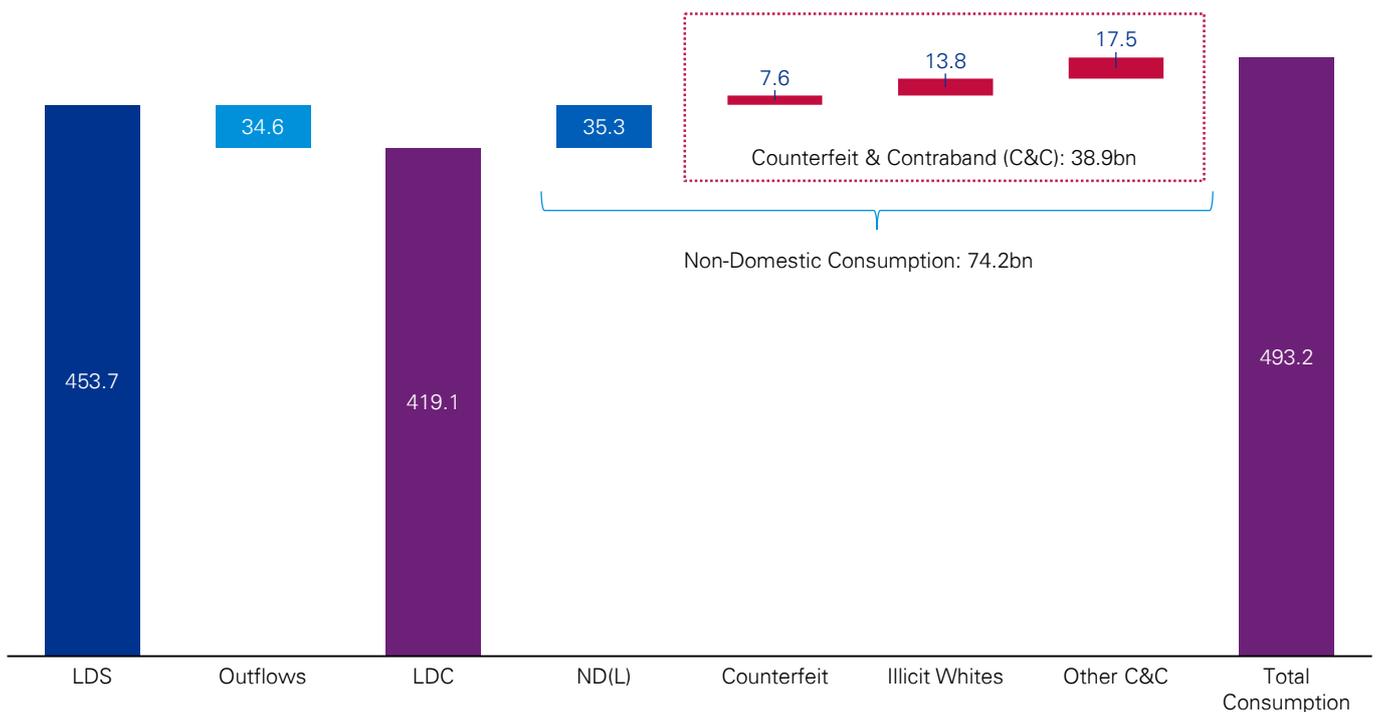
ND	Non-Domestic product – product that originates from a different market than the one in which it is consumed
ND(L)	Non-Domestic (Legal) – product that is brought into the market legally by consumers, such as during a cross-border trip
OCG	Organised Criminal Groups
OLAF	Office Européen de Lutte Antifraude also known as the European Anti-Fraud Office
OTP	Other Tobacco Products (RYO/MYO, cigarillos, portions, rolls and cigars; excluding smokeless tobacco and water-pipe tobacco)
PMI	Philip Morris International
PMP SA	Philip Morris Products SA
RYO	Roll Your Own tobacco products
Smoking prevalence	The percentage of smokers in the total population of the legal smoking age
Tobacco taxes	The sum of all types of taxes levied on tobacco products, including VAT. There are two basic methods of tobacco taxation: Normal or specific taxes are based on a set amount of tax per unit (e.g. cigarette); these taxes are differentiated according to the type of tobacco. Ad valorem taxes are assessed as a percentage mark up on a determined value, usually the retail selling price or a wholesale price and includes any value added tax
Unspecified	Unspecified market variant refers to cigarette packs which do not bear specific market labelling or Duty Free labelling
UNWTO	United Nations World Tourism Organisation
WAP	The weighted average price for cigarettes calculated by reference to the total value of all cigarettes released for consumption, based on the retail selling price including all taxes, divided by the total quantity of cigarettes released for consumption. The WAP is provided by the European Commission Excise Duty Tables

Contents

	Page
Executive Summary	8
Country Reports	23
Methodology	174
Appendices	208
1. Limitation of Results	209
2. Empty pack survey results by country	212
3. Sources	228
4. Scope of work	231

KPMG's EU Flows Calculation: an approach to categorising cigarette consumption

Estimate of total cigarette consumption in the EU, 2019 (bn cigarettes)



The chart above illustrates KPMG's core approach to estimating the size and scale of illicit cigarette consumption, known as Counterfeit & Contraband (C&C), which includes Illicit Whites

KPMG's approach, using empty pack surveys (from market research agencies commissioned by the tobacco industry) and Legal Domestic Sales (provided by manufacturers and third party research agencies) allows it to split total cigarette consumption into its constituent parts

Legal Domestic Sales, available in every country, underpin the initial volume estimate, whilst empty pack surveys enable KPMG to determine the additional 'non-domestic' component of consumption, which can be further analysed depending on the source and brand of each pack

KPMG's flows calculation ensures that inflows and outflows around the EU are all equal, so that the overall consumption in each country can be estimated

Definitions for each component of cigarette consumption are available in the appendix

About this report

This report is an annual study estimating the scale and development of the illicit cigarette market in the EU. This report was commissioned by Philip Morris Products SA for data covering 2019. KPMG LLP was previously commissioned by Philip Morris Products SA to undertake Project Stella in 2019. This study covers all 28 European Union member states in 2019, with an EU market overview. There are also individual country reports for Norway and Switzerland. More information on the agreed scope of work can be seen in the appendices to this report.

The methodology used to estimate the size of the illicit cigarette market in connection with the Project SUN/ Stella reports has continued to be applied consistently in this report, with the underlying data-sources remaining the same. The methodology is underpinned by a combination of hard data, such as legal sales of cigarettes within the EU and travel data, publicly available data-points, such as smoking prevalence and average prices of cigarettes, and the empty pack surveys, undertaken by independent market research agencies. KPMG's approach is to review all data-points to produce the relevant estimates. An overall methodology is provided within this report.

This report refers to interviews with law enforcement, which took place as part of the research process for this study.

Historic references to previous versions of the study are also made within KPMG's Project SIA report (available [here](#)) which documents seizures of tobacco products throughout Europe.



Executive summary



Executive summary

38.9bn

Counterfeit & Contraband cigarettes consumed



-4.7bn on 2018
-11% on 2018



Of total consumption was C&C



-0.7ppt on 2018

€9.5bn

Tax revenue lost



-€841mn on 2018
-8% on 2018

EU Illicit cigarette consumption declined in 2019

- Illicit cigarette consumption (C&C) decreased to 7.9% of total consumption, representing 38.9bn cigarettes in the EU
- Had these cigarettes been legally purchased in the countries in which they were identified, an additional €9.5 billion in taxes would have been raised in the EU

Counterfeit and Illicit white volumes are growing

- Illicit Whites and counterfeit cigarettes continued to grow their share of C&C at the expense of contraband, accounting for more than 50% of C&C consumption in the EU for the first time
 - This growth in Illicit Whites and counterfeit may be driven by increasing volumes from illegal factories within the EU, as noted in our interviews with law enforcement⁽¹⁾ and analysed by KPMG as part of last year's Stella report⁽²⁾
- Illicit Whites with no country specific labelling remain the largest element of C&C, representing 23.1% of the total EU illicit consumption or 9.0 billion cigarettes, up from 21.8% in 2018
- Counterfeit of brands owned by manufacturers participating in the empty pack survey^(a) grew to 7.6 billion cigarettes, an increase of 38.3% from 5.5 billion in 2018 to the highest level ever recorded in this study. Counterfeit cigarettes represented 19.5% of illicit EU consumption
- Interviews with law enforcement indicate that illegal factories operating within the EU continue to be a feature
- Other C&C, i.e., illicit flows excluding counterfeit and Illicit Whites, declined by 7.7bn or 31%

Illicit flows from outside the EU declined

- Illicit flows from identifiable markets outside the EU, such as Ukraine and Belarus continued to decline
- However, illicit flows between EU countries increased

Flows of legally purchased non-domestic cigarettes are increasing

- In contrast with illicit flows, non-domestic legal volumes continued to increase in 2019, suggesting consumers may be taking the opportunity to increasingly purchase from cheaper markets when travelling

Note: (a) Counterfeit can only be identified by manufacturers forensically examining their brands collected via empty pack surveys. As only BAT, ITL, JTI and PMI participate in the empty pack surveys used in this report, counterfeit can only be identified from these manufacturers

Sources: (1) Interviews with 5 EU law enforcement agencies ; (2) KPMG, Project Stella, Illicit cigarette manufacturing in the EU, Nov 2019; (3) EU level results are an aggregation of the EU Flows Calculation results for the 28 EU member states, a detailed methodology and list of sources for each market is available in the methodology section of this report

Law enforcement



Discussions with EU law enforcement agencies highlighted a number of trends across EU markets, namely:

Localised EU manufacture of Illicit Whites and counterfeit cigarettes is increasing

Illegal cigarette manufacturers are becoming increasingly complex in their operations

Organised crime groups involved in cigarette smuggling are increasingly changing their approach to smaller volume, higher frequency shipments to evade detection and reduce losses

New crime groups are emerging specialising in the smuggling and sale of illicit raw tobacco

EU manufacture of Illicit Whites and counterfeit cigarettes is increasing

- Law enforcement agencies reported increased illegal factory raids compared to 2018
- Increasing numbers and volumes of Illicit White brands, growing counterfeit volumes and lower non-EU illicit inflows all support law enforcement's view that EU illicit manufacturing is increasing at the expense of illicit imports

Illegal manufacturers are becoming increasingly complex in their operations

- Intelligence gathered suggests organised crime groups often have multiple manufacturing premises to reduce the impact of raids on their operations
- Machinery seized in raids is becoming increasingly high tech, implying increasing professionalism amongst criminal groups
- Illicit manufacturers are producing counterfeit, established and new Illicit White brands to order at scale for organisations and smugglers who can arrange distribution of large volumes, either in large shipments or increasingly via high frequency, low volume shipments
- As raw tobacco controls differ across markets, and other materials, including machinery, can be moved relatively freely, it is difficult for law enforcement to prevent organised crime groups obtaining the inputs required for illegal manufacturing

New approaches are emerging amongst existing organised crime groups

- There is a trend towards high frequency lower volume shipments of illicit cigarettes. These are harder for customs to control and reduce groups' losses if the shipment is seized, albeit large shipments still occur
- Organised crime groups are exploiting new channels to transport illicit products, such as rail, as it is faster than traditional shipping routes, and courier packages, which are small and hard for law enforcement to detect. Organised crime groups are also able to quickly develop new routes in response to increased law enforcement efforts

New organised crime groups are emerging

- New groups are emerging that specialise in smuggling raw and fine cut tobacco, operating separately from the established illicit manufactured cigarette makers and smugglers

Cross-border cooperation is an important tool to fight illicit trade, however it is too soon to tell if the EU wide track and trace system (TPD 15/16) has been effective

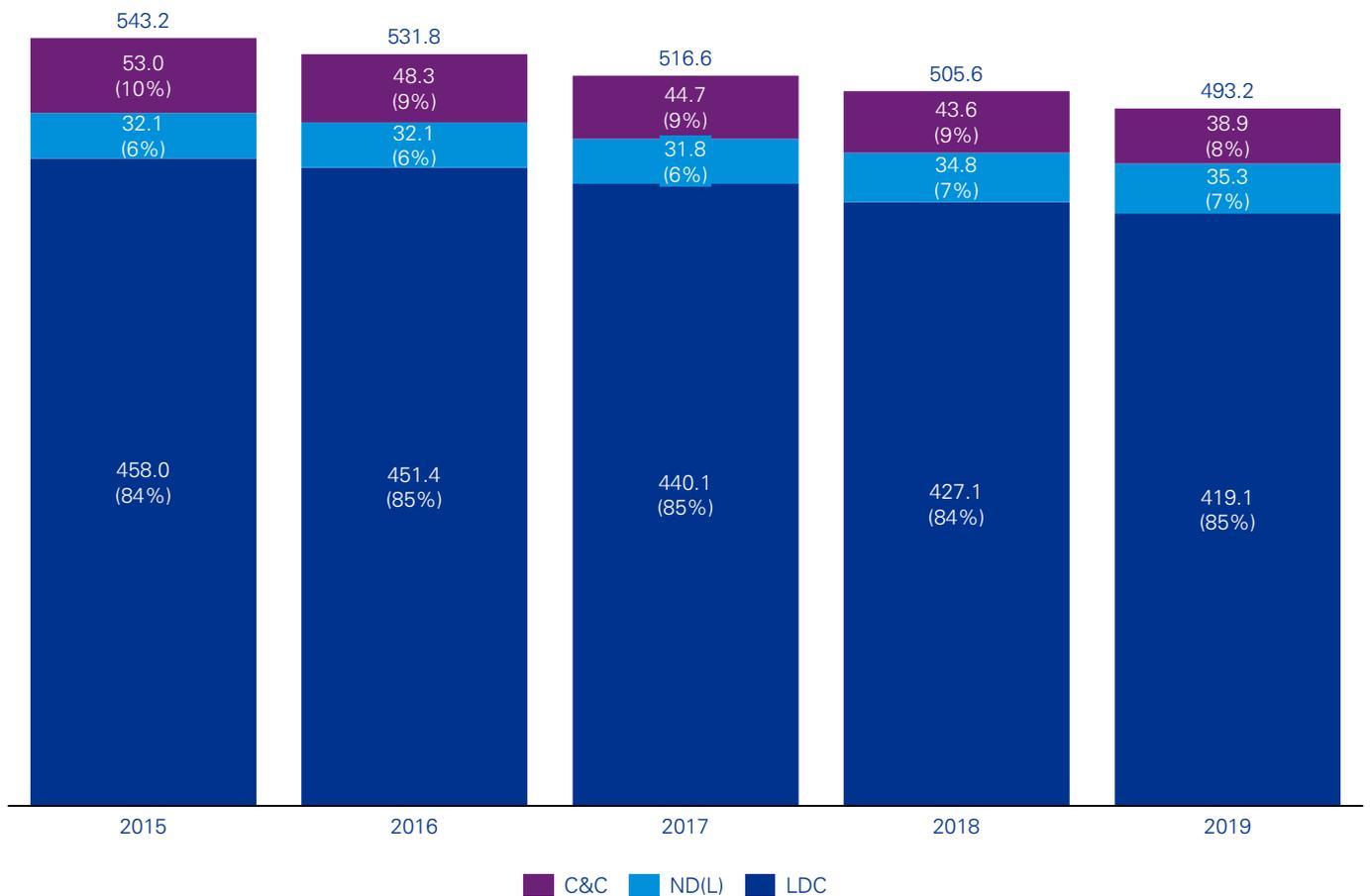
- Law enforcement regularly share and receive intelligence from other local and international agencies, including tobacco manufacturers
- Some interviewees felt the new track and trace systems were yet to reach their full potential as some markets have adapted to using them quicker than others

Source: Interviews with five EU law enforcement agencies

EU consumption trend (1)

- EU total cigarette consumption declined by 2.4% in 2019, in line with the long term trend
- Non-domestic consumption volumes (both legal and illicit) declined by 5.5% in 2019, slightly faster than the long term trend of 3.4% from 2015, but maintained a relatively stable share of consumption of 15.0% in 2019 compared to 15.5% in 2018
 - C&C volumes declined at a faster rate than total consumption, reducing by 10.8% in 2019
 - ND(L) grew by 1.2% in 2019, reaching the highest volume seen in the reporting period

Total manufactured cigarette consumption in the EU, 2015-2019 (bn cigarettes)



Source: EU level results are an aggregation of the EU Flows Calculation results for the 28 EU member states, a detailed methodology and list of sources for each market is available in the methodology section of this report

EU consumption trend (2)

- The highest illicit consumption shares were found in Greece (22.4%), Lithuania (17.7%) and Ireland (17.5%)
- The largest illicit consumption markets in the EU were France, with 7.2bn illicit cigarettes and the UK with 5.5bn illicit cigarettes

C&C as a percentage of total consumption, 2019 (bn cigarettes)



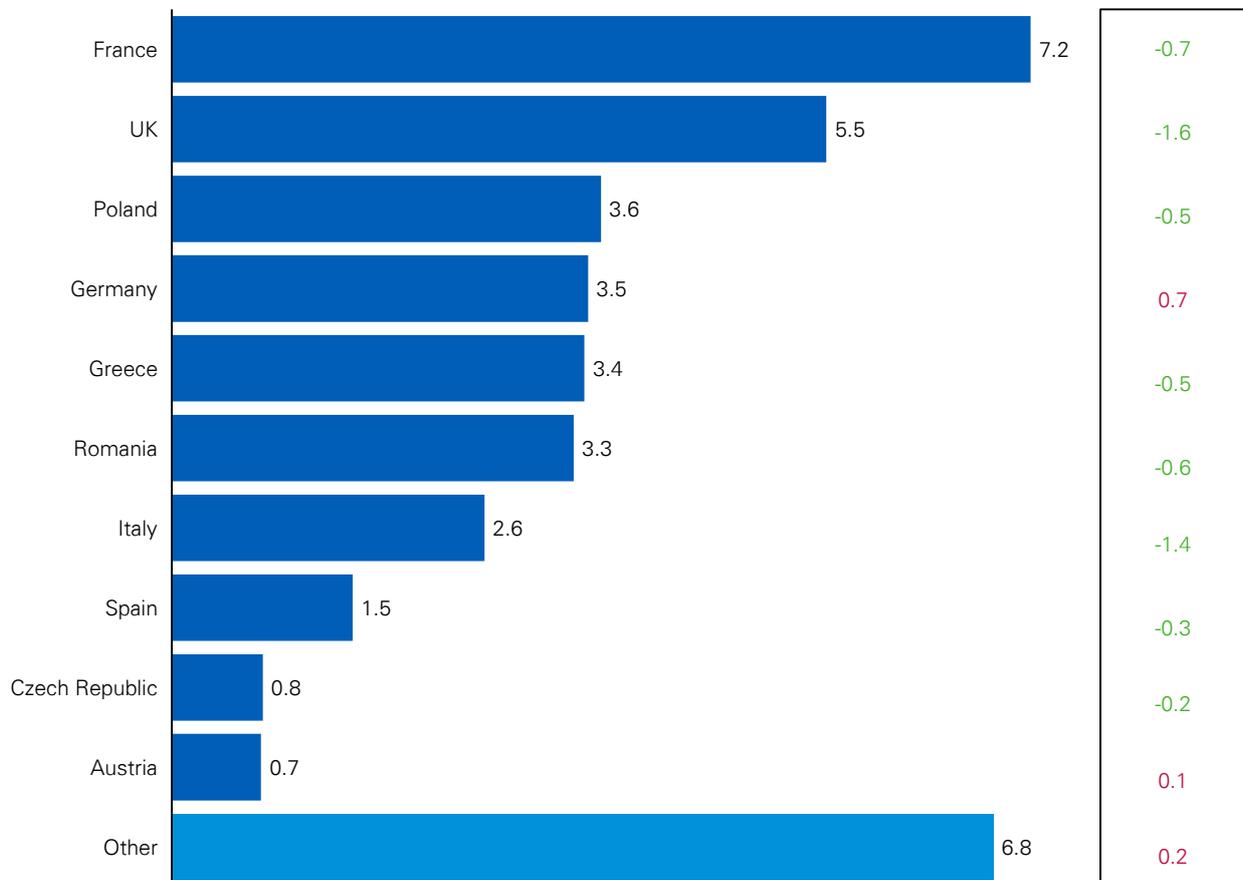
Source: EU level results are an aggregation of the EU Flows Calculation results for the 28 EU member states, a detailed methodology and list of sources for each market is available in the methodology section of this report

Focus on key markets (1)

- Despite a C&C decline of 0.7bn in 2019, France remains the largest market for illicit cigarettes in the EU
- UK and Italy saw the largest decline in C&C volumes in 2019, each declining by over a billion cigarettes
- Germany and Austria were the only markets in the top 10 to see an increase in C&C volume

Top 10 C&C countries by volume, 2019 (billion cigarettes)

Change on 2018 results



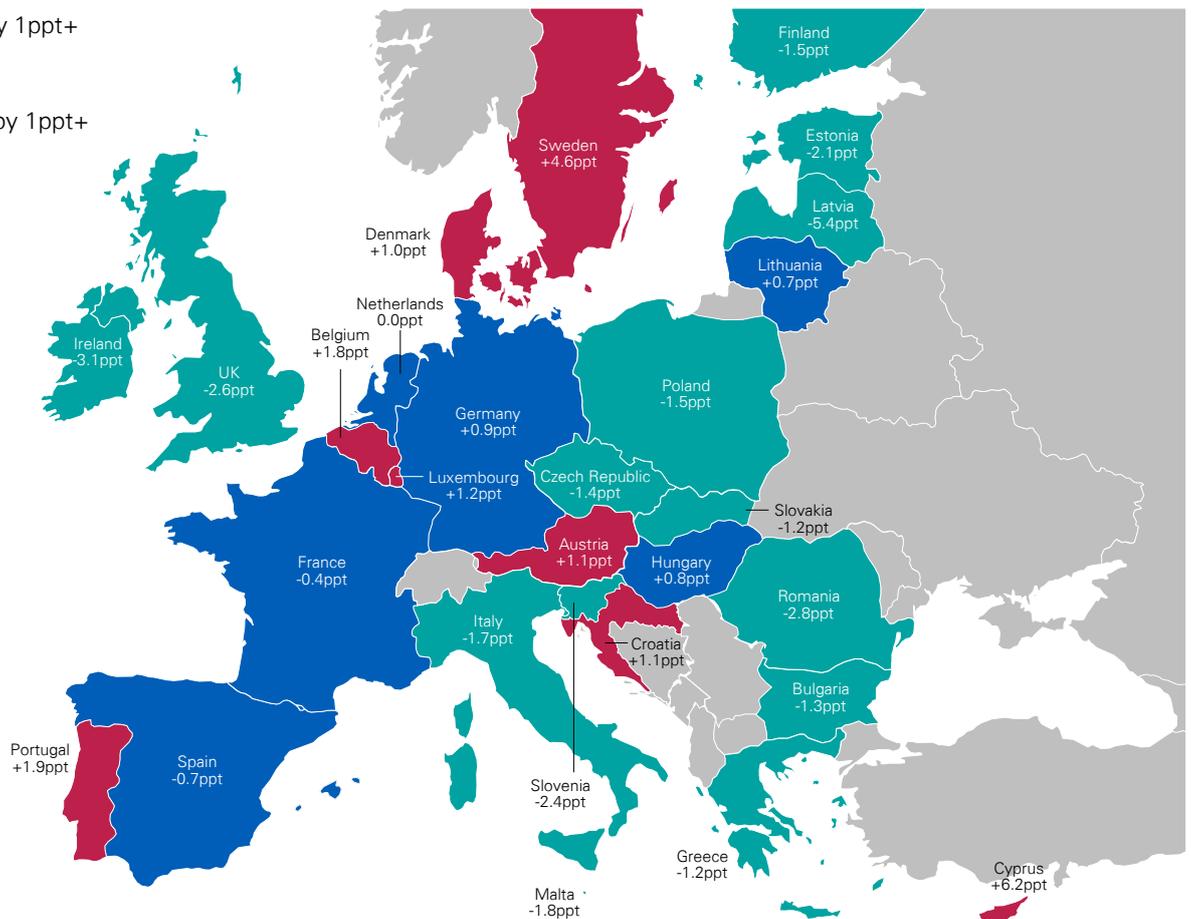
Source: EU level results are an aggregation of the EU Flows Calculation results for the 28 EU member states, a detailed methodology and list of sources for each market is available in the methodology section of this report

Focus on key markets (2)

- Most of the major cigarette consumption markets saw declining or stable C&C in 2019, driving overall declines at an EU level
- Cyprus and Sweden were the countries with the largest increase in share of C&C. The C&C share increased by 6.2ppt in Cyprus and 4.6ppt in Sweden
- C&C share in Latvia and Ireland declined by 5.4ppt and 3.1ppt, the largest decline in the EU. Despite this decline, these countries continue to have some of the highest C&C shares in the EU

Change in share of C&C consumption vs prior year, 2019 (ppt)

- Increased by 1ppt+
- Stable
- Decreased by 1ppt+

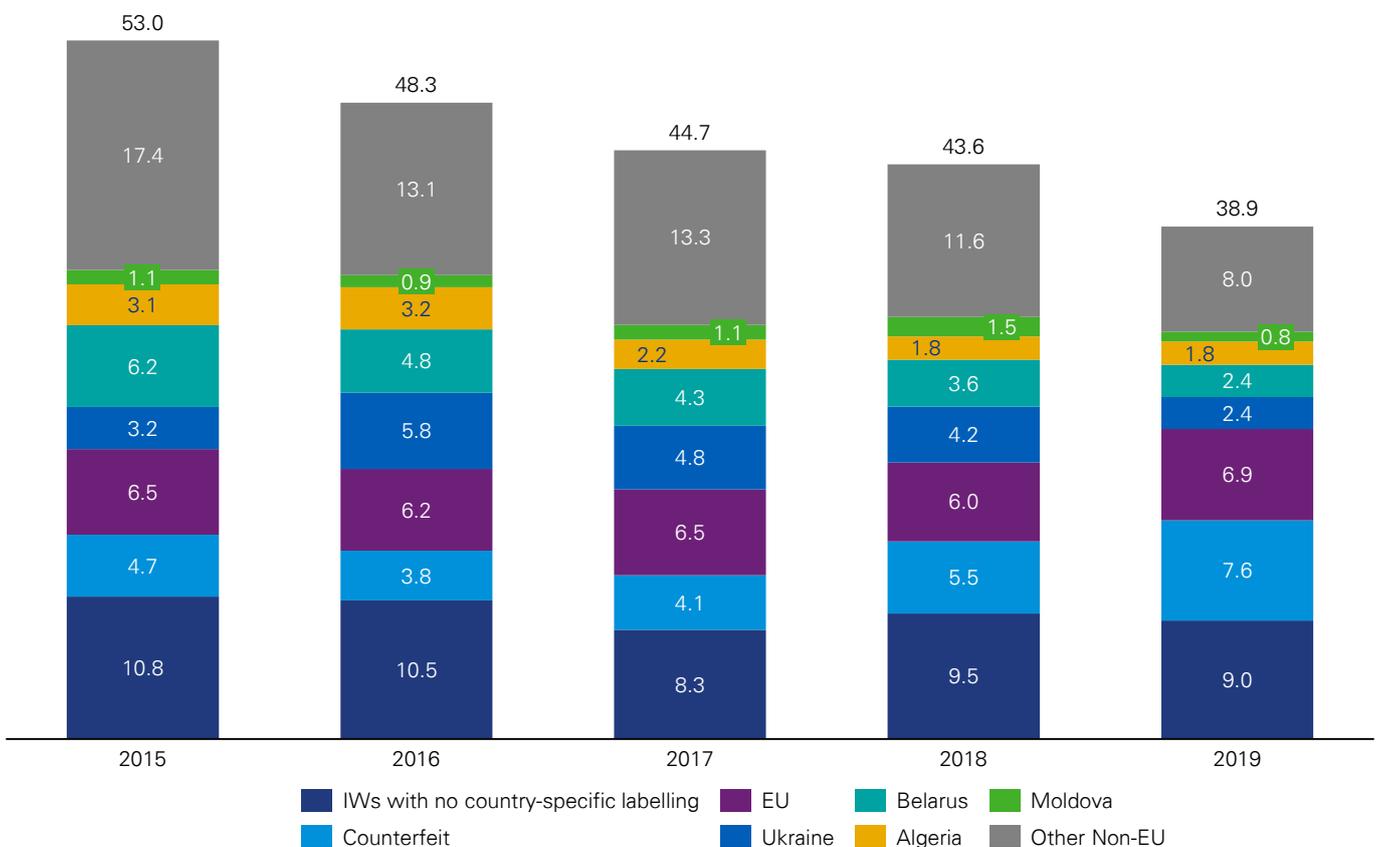


Source: EU level results are an aggregation of the EU Flows Calculation results for the 28 EU member states, a detailed methodology and list of sources for each market is available in the methodology section of this report

C&C source countries

- Illicit consumption in the EU continued the trend towards flows from non-identifiable origins (Illicit Whites with no country-specific labelling and counterfeit) and away from historical sources such as Ukraine and Belarus
- Illicit cigarettes that can be identified as flows from one EU country to another remain a relatively small component in comparison with non-EU and non-identifiable sources
- However, interviews with law enforcement, and KPMG’s own research into this topic as part of last year’s Stella report, indicate that a significant proportion of Illicit Whites with no country-specific labelling and counterfeit may be manufactured in illegal factories within the EU

Sources of C&C in the EU, 2015-2019 (bn cigarettes)

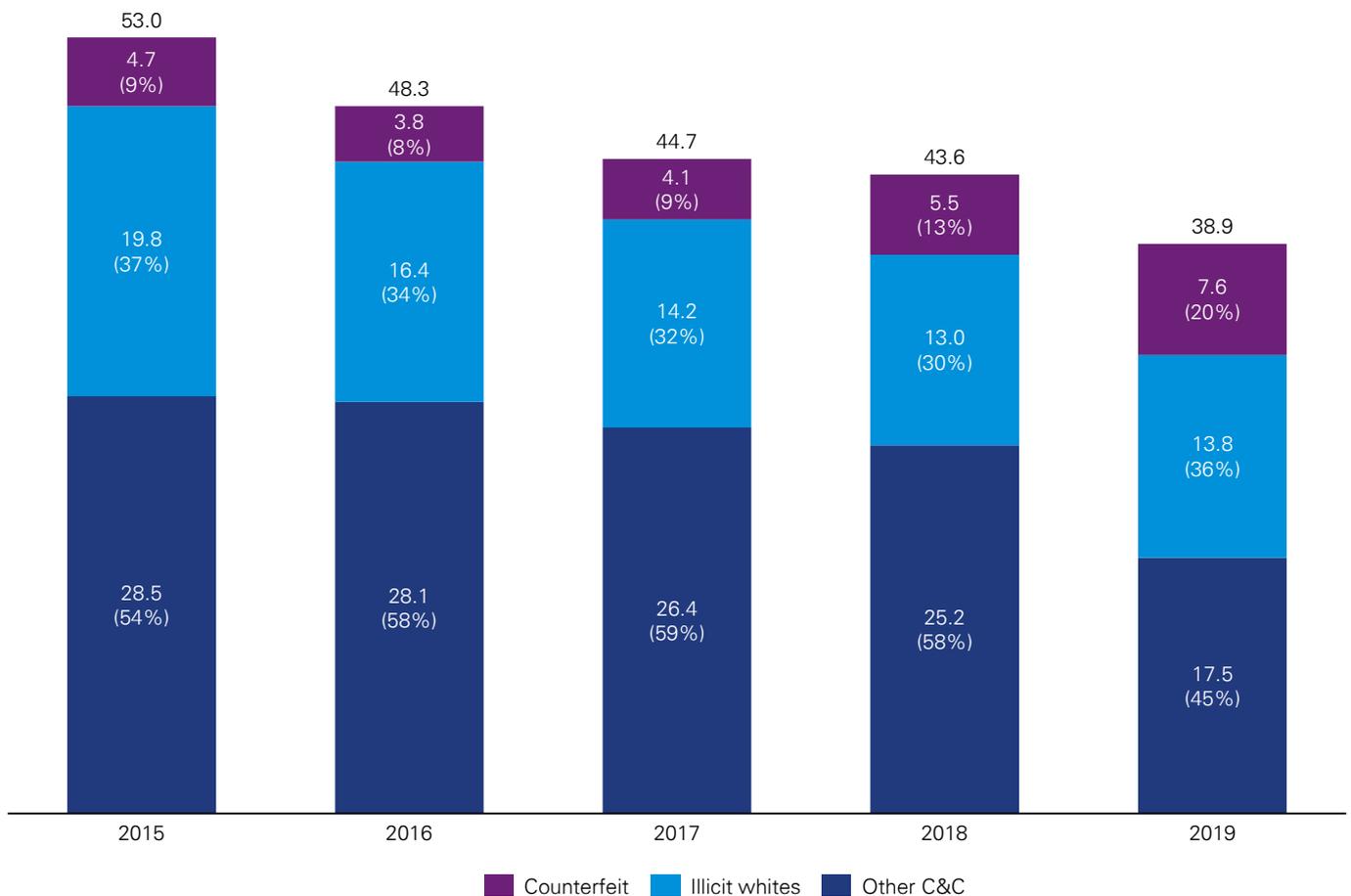


Source: EU level results are an aggregation of the EU Flows Calculation results for the 28 EU member states, a detailed methodology and list of sources for each market is available in the methodology section of this report; Project Stella Report 2018

C&C trend by type

- For the first time in this study, counterfeit and Illicit Whites together formed over 50% of total illicit inflows into the EU
- Counterfeit grew by 2.1bn, or almost 40%
- Illicit Whites volume increased by 0.8bn, rising for the first time since 2015
- Other C&C flows declined by 7.7bn which more than offset the increases in Illicit Whites and counterfeit volumes

C&C trend by type in the EU, 2015-2019 (bn cigarettes)

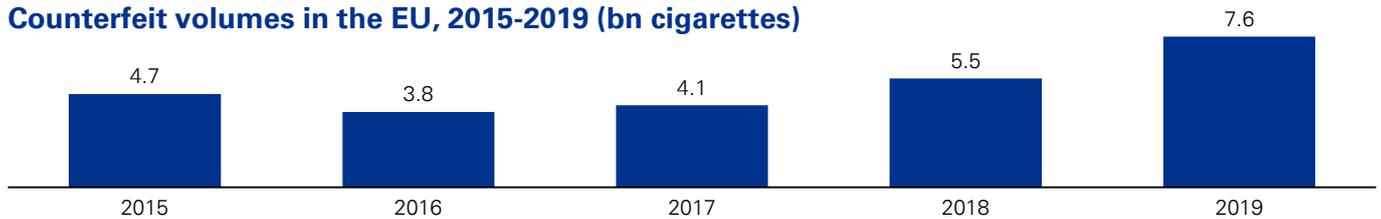


Source: EU level results are an aggregation of the EU Flows Calculation results for the 28 EU member states, a detailed methodology and list of sources for each market is available in the methodology section of this report

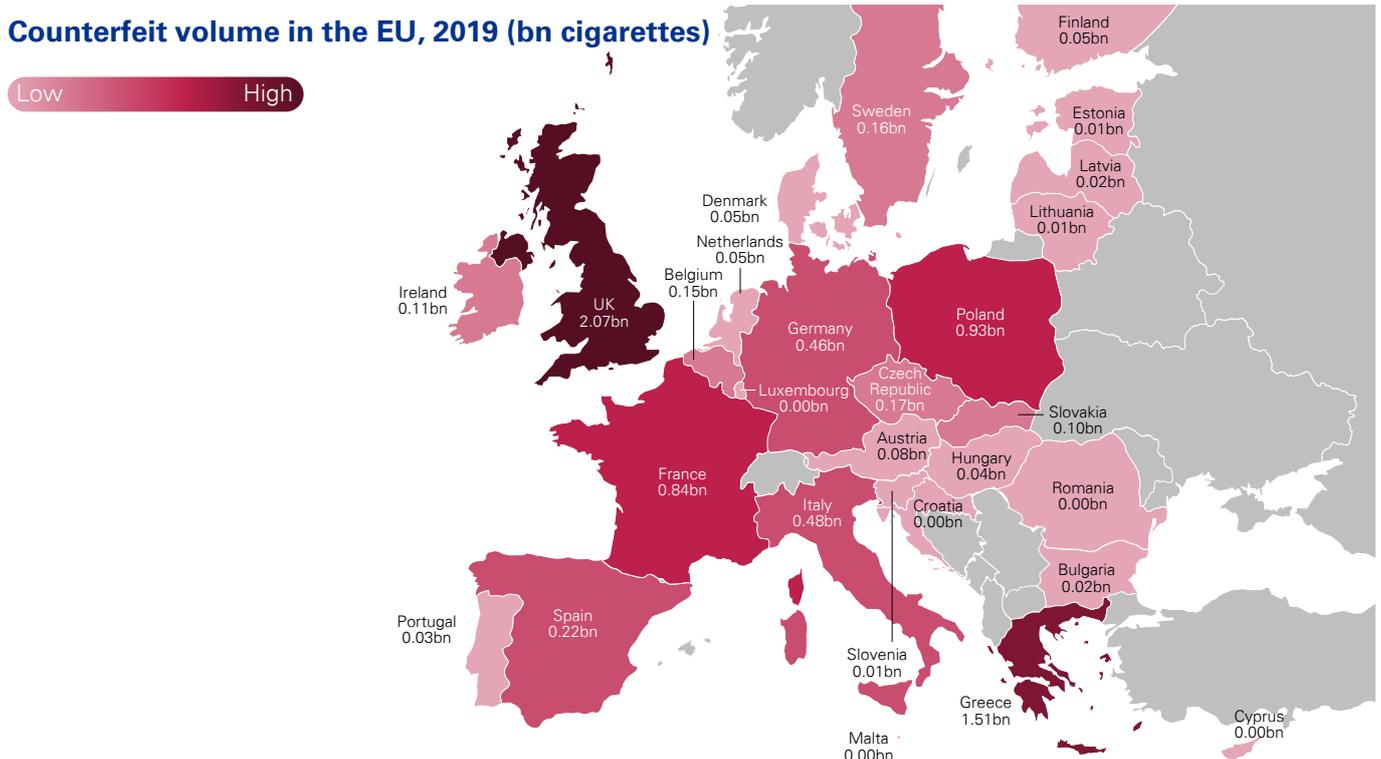
Focus on counterfeit

- Counterfeit volume increased in 2019, continuing a trend seen since 2016
- Counterfeit consumption was the highest in the UK (2.07bn) and Greece (1.51bn)
- The largest year-on-year increase in counterfeit consumption was measured in the UK (1.20bn cigarettes or 137%) and France (0.38bn cigarettes or 82%)
- In the UK, Greece and France, counterfeit cigarettes were predominantly of domestic variants
- Interviews with law enforcement⁽¹⁾ indicate that an increasing volume of the counterfeit detected in this study is manufactured in illegal factories within the EU. Furthermore, as only participating manufacturers forensically examine packs collected in the empty pack survey to identify counterfeit, actual counterfeit volumes in the EU may be even higher than that shown in this report
- As part of last year's Stella report⁽²⁾ KPMG estimated that EU manufacturing could account for up to 5bn of EU counterfeit consumption in 2018, i.e. the majority of counterfeit could be of EU origin

Counterfeit volumes in the EU, 2015-2019 (bn cigarettes)



Counterfeit volume in the EU, 2019 (bn cigarettes)

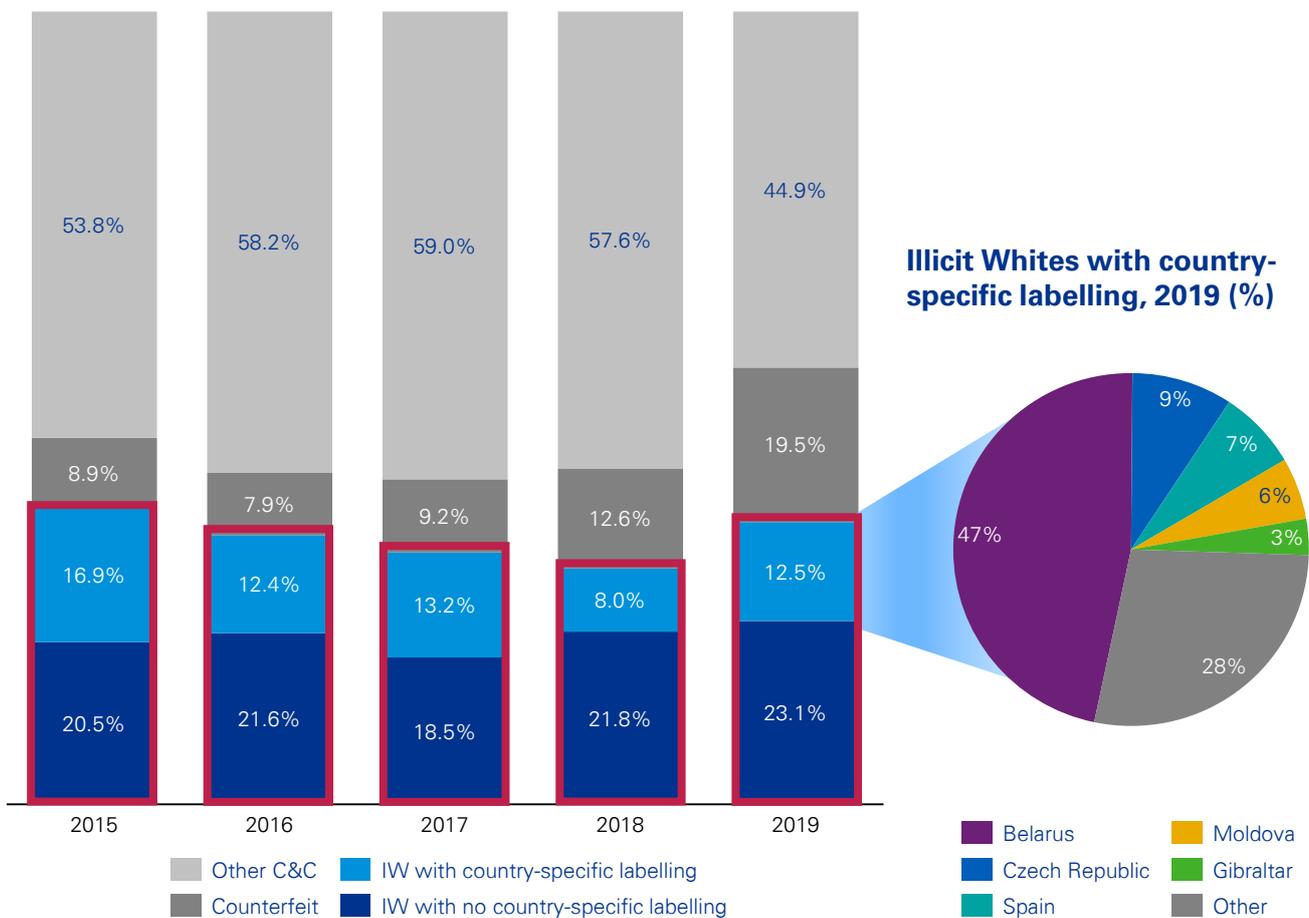


Sources: (1) Interviews with 5 EU law enforcement agencies; (2) KPMG, Project Stella, Illicit cigarette manufacturing in the EU, Nov 2019; (3) EU level results are an aggregation of the EU Flows Calculation results for the 28 EU member states, a detailed methodology and list of sources for each market is available in the methodology section of this report

Focus on Illicit Whites (1)

- Illicit Whites continue to be a major element of illicit consumption in the EU, accounting for 35.6% of illicit consumption
- The majority of Illicit White flows are categorised as Illicit Whites with no country-specific labelling, as they have no health warning or are labelled as Duty Free. This generic labelling makes identification of the source market difficult
 - Interviews with law enforcement⁽¹⁾ indicate that some of these Illicit Whites with no country-specific labelling are manufactured within the EU. As part of last year's Stella report⁽²⁾ KPMG estimated that EU manufacturing could account for up to half of EU Illicit White consumption in 2018
- Where the Illicit Whites did have country-specific labelling, nearly half the flow was from Belarus

Illicit Whites as a percentage of total C&C in the EU, 2015-2019

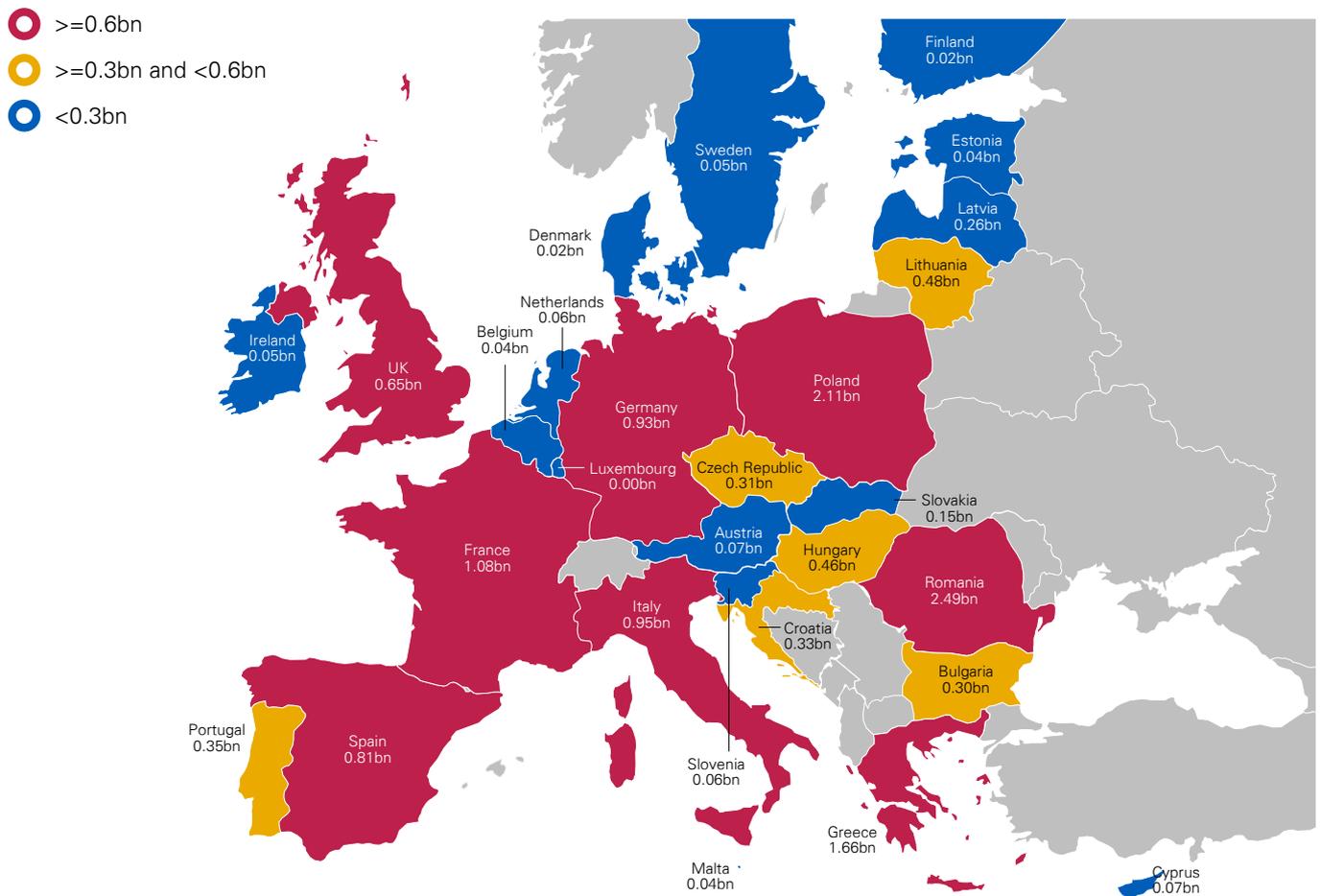


Sources: (1) Interviews with 5 EU law enforcement agencies; (2) KPMG, Project Stella, Illicit cigarette manufacturing in the EU, Nov 2019; (3) EU level results are an aggregation of the EU Flows Calculation results for the 28 EU member states, a detailed methodology and list of sources for each market is available in the methodology section of this report

Focus on Illicit Whites (2)

- The highest flows of Illicit Whites were measured in Romania (2.49bn), Poland (2.11bn) and Greece (1.66bn)
- The largest increase in Illicit Whites consumption was observed in France (0.72bn), Germany (0.62bn) and Spain (0.36bn)

Illicit Whites consumption in the EU, 2019 (bn cigarettes)

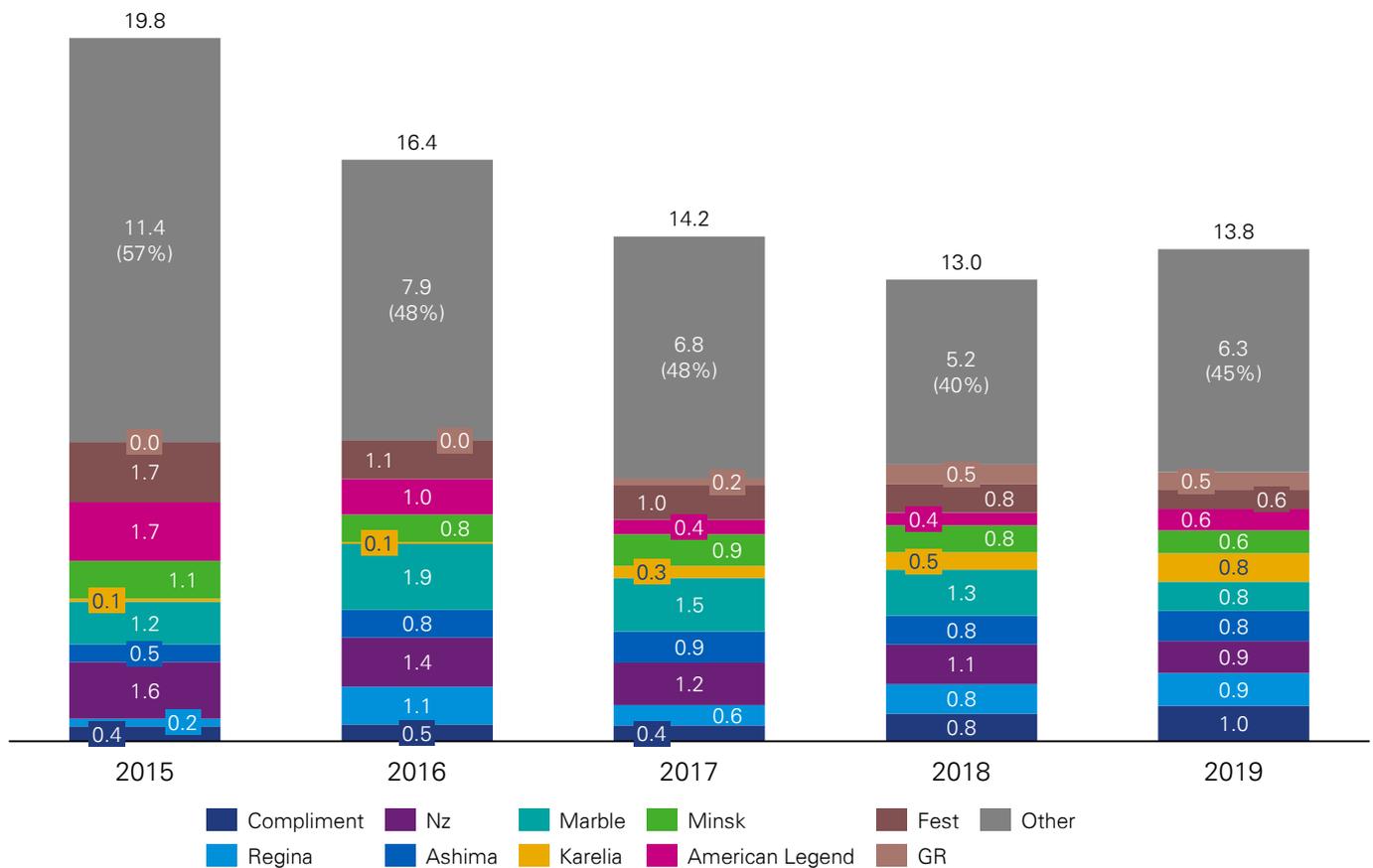


Source: EU level results are an aggregation of the EU Flows Calculation results for the 28 EU member states, a detailed methodology and list of sources for each market is available in the methodology section of this report

Focus on Illicit Whites (3)

- The largest flows of Illicit Whites brands in the EU were Compliment (1.0bn), Regina (0.9bn) and NZ (0.9bn)
- The top ten Illicit Whites brands accounted for over 50% of the total IW volume in 2019
- Growth in Illicit White flows in 2019 was driven by volume increases of brands outside the top 10, implying a diversification of Illicit Whites away from established brands
- For seven of the top ten Illicit Whites brands, the majority of the flows had no country-specific labelling. The other three (NZ, Minsk and Fest) mostly had Belarusian labelling

Illicit Whites by brand in the EU, 2015-2019 (bn cigarettes)



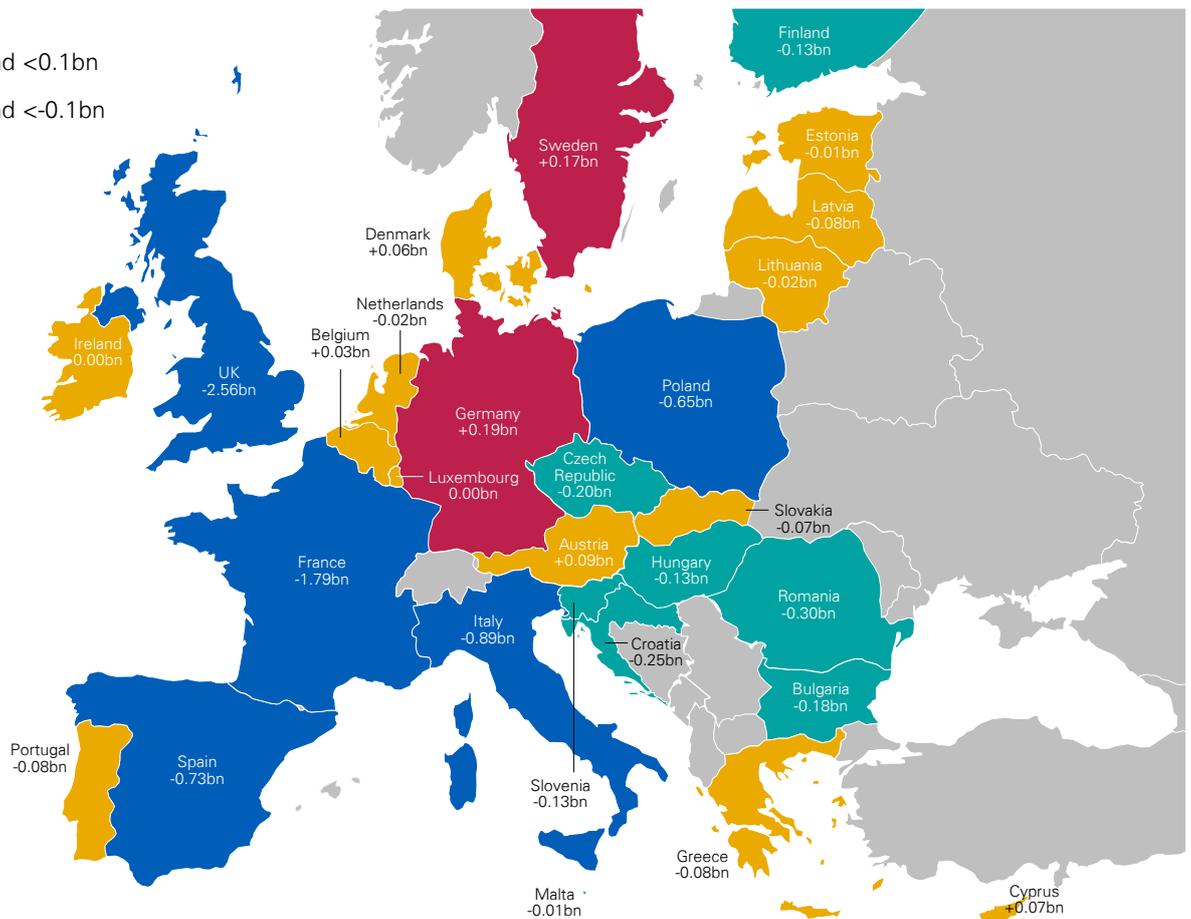
Source: EU level results are an aggregation of the EU Flows Calculation results for the 28 EU member states, a detailed methodology and list of sources for each market is available in the methodology section of this report

Focus on Other C&C

- Other C&C volumes declined by 7.7 billion cigarettes and formed 45% of EU C&C consumption, down from 58% in 2018
- EU-level declines were driven by volume reductions in the several major cigarette consuming countries, with the largest decreases in the UK (2.56bn) and France (1.78bn)
- The largest increases were in Germany (0.19bn) and Sweden (0.17bn)

Change in Other C&C consumption vs prior year, 2019 (bn cigarettes)

- ≥ 0.1 bn
- ≥ -0.1 bn and < 0.1 bn
- ≥ -0.5 bn and < -0.1 bn
- < -0.5 bn

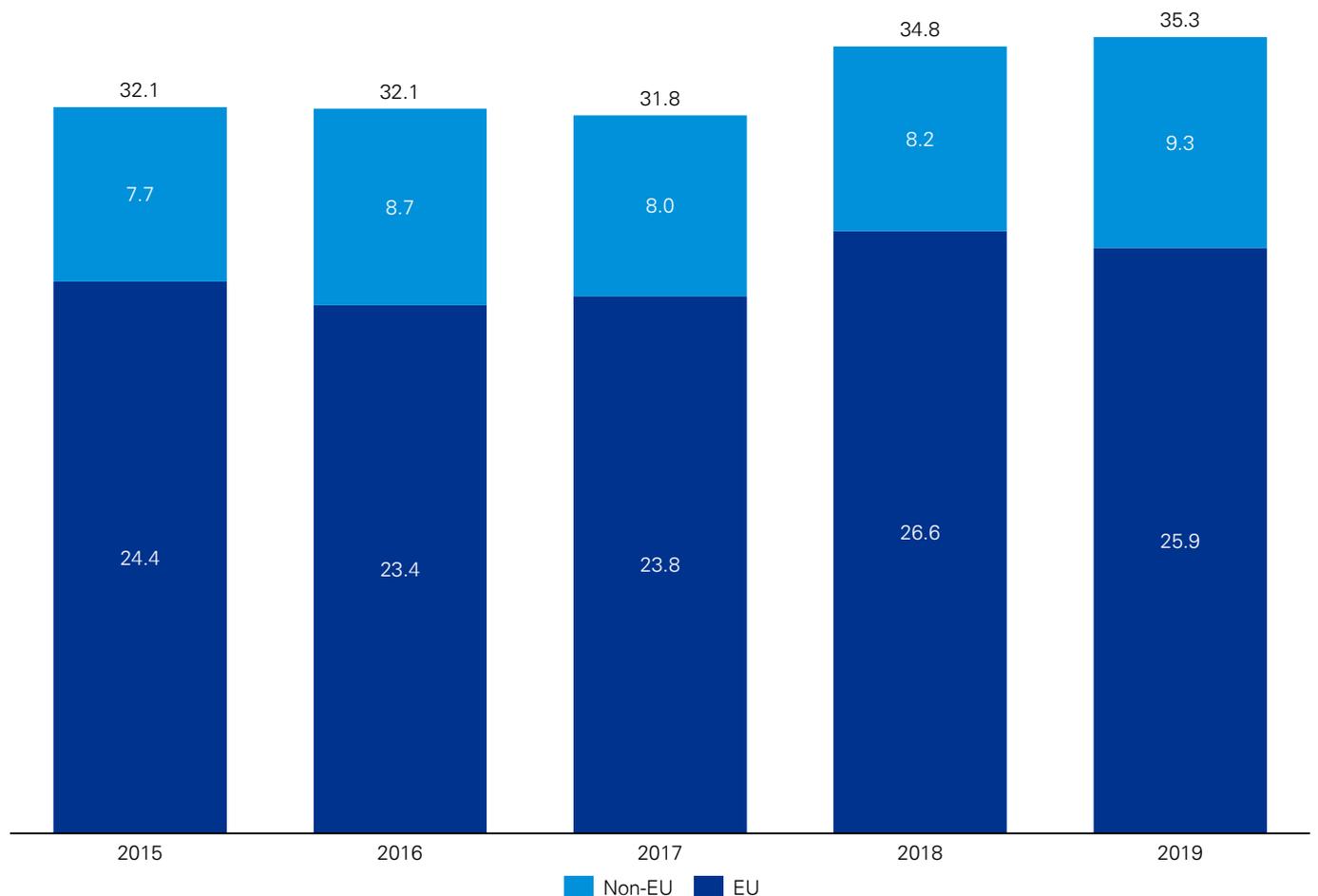


Source: EU level results are an aggregation of the EU Flows Calculation results for the 28 EU member states, a detailed methodology and list of sources for each market is available in the methodology section of this report

Non-domestic legal (ND(L))

- ND(L) volume has increased for a second year in a row and has reached the largest levels recorded since 2007
- Increasing non-domestic legal inflows from within the EU suggests that customers may be increasingly seeking to take advantage of cheaper cigarettes from neighbouring markets. This trend is particularly evident in France where there are large legal inflows from neighbouring Spain, Belgium and Luxembourg

Source of ND(L) in the EU, 2015-2019 (bn cigarettes)



Source: EU level results are an aggregation of the EU Flows Calculation results for the 28 EU member states, a detailed methodology and list of sources for each market is available in the methodology section of this report



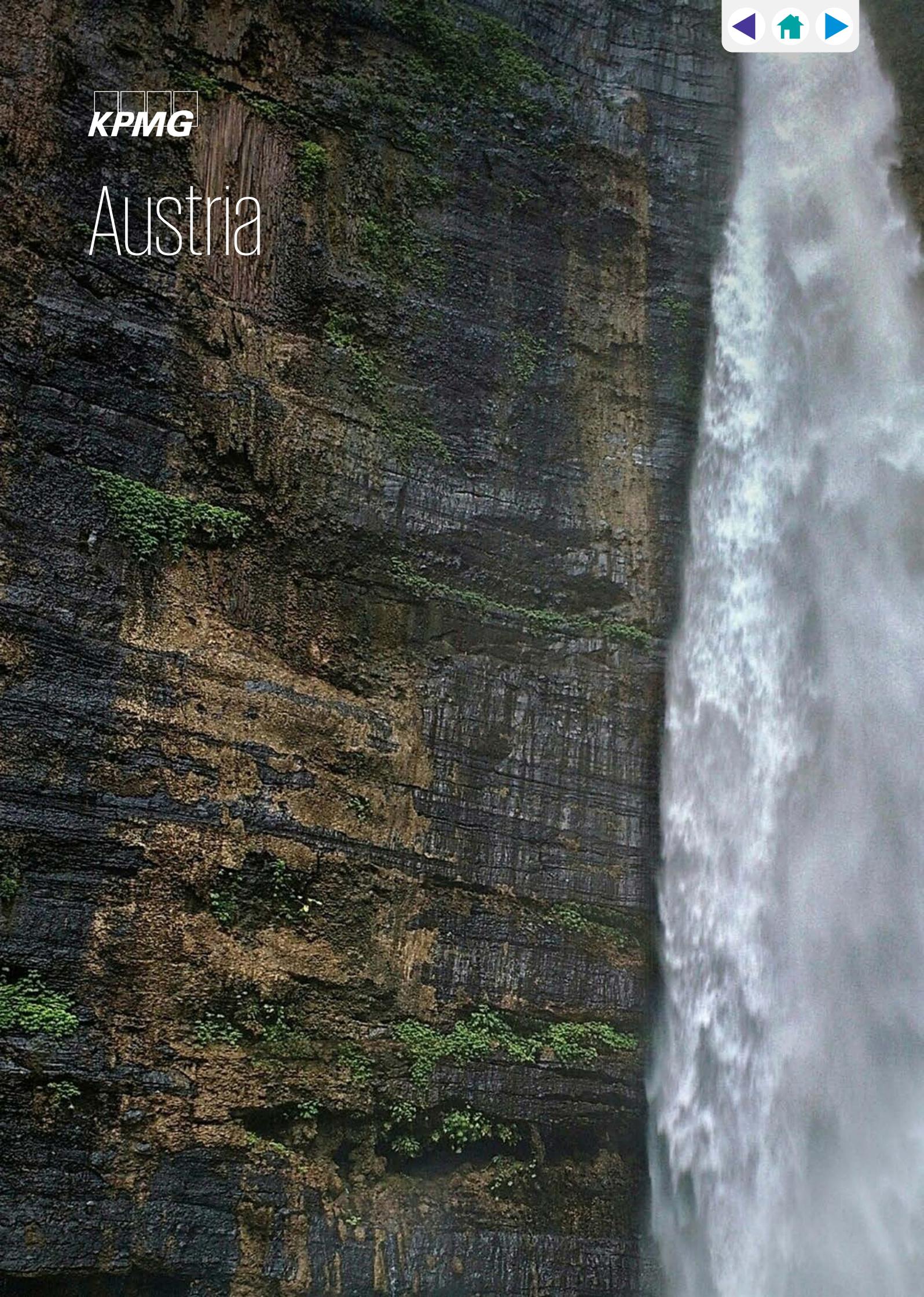
Country reports





KPMG

Austria



C&C cigarette consumption and total consumption

13.5bn

Cigarettes consumed



+0.01bn on 2018

0.7bn

C&C cigarettes consumed



+0.14bn on 2018

5.5%

Of total consumption was C&C



+1.07%pts on 2018

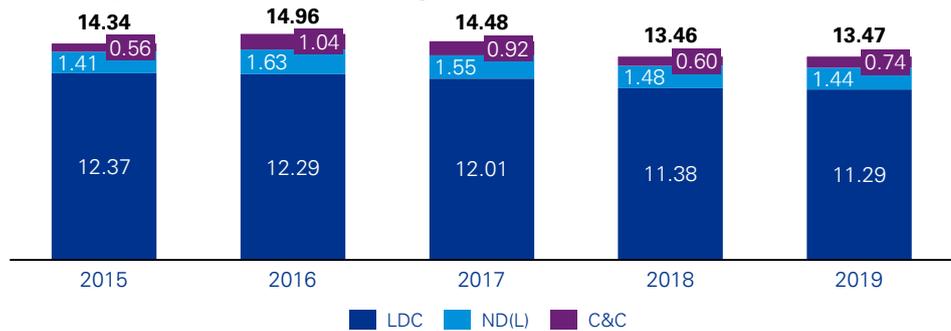
€139m

Total tax revenue lost from C&C



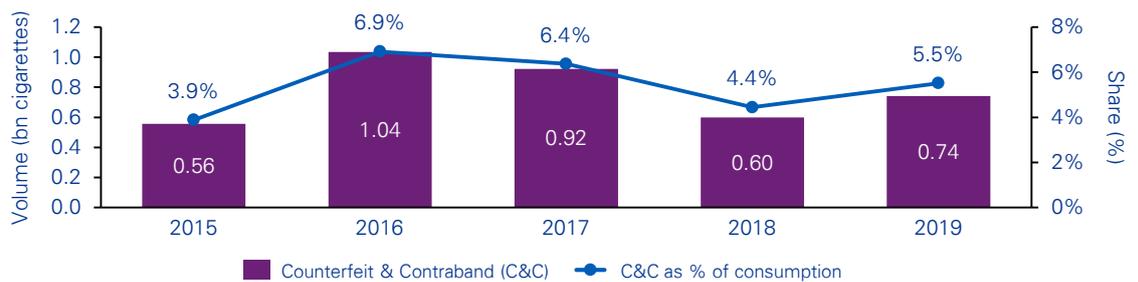
+€27m on 2018

Total consumption – 2015-2019 (bn cigarettes)

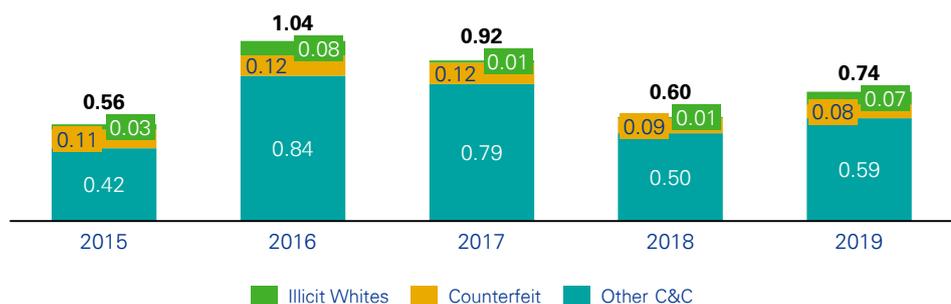


- C&C increased in 2019 to 5.5% of total cigarette consumption, or 0.74bn cigarettes
- Overall cigarette consumption remained stable

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2015-2019



Breakdown of C&C consumption by type – 2015-2019 (bn cigarettes)



Note: C&C breakdown chart only includes counterfeit volumes related to brands of manufacturers who participate in the empty pack/yellow bag surveys. Total tax revenue lost represents estimated excise and VAT if C&C volumes had been consumed legally in the country of study

Source: KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

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Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2015-2019

Total Austria Consumption						
Billion cigarettes	2015	2016	2017	2018	2019	2018-19 (%)
Legal Domestic Sales (LDS)	12.73	12.63	12.40	11.83	11.73	(1%)
Outflows	(0.36)	(0.33)	(0.40)	(0.45)	(0.44)	(1%)
Legal Domestic Consumption (LDC)	12.37	12.29	12.01	11.38	11.29	(1%)
Non-Domestic Legal (ND(L))	1.41	1.63	1.55	1.48	1.44	(3%)
Counterfeit and Contraband (C&C)	0.56	1.04	0.92	0.60	0.74	24%
Total Non-Domestic	1.97	2.67	2.47	2.08	2.18	5%
Total Consumption	14.34	14.96	14.48	13.46	13.47	0%

- The neighbouring lower-priced markets of Czech Republic, Slovakia, Hungary and Slovenia remain the main sources of non-domestic flows
- Inflows from The Republic of North Macedonia returned to a level similar to that seen in 2016, and are considered mostly illicit as the flow is not supported by traveller and tourism volumes
- Neighbouring Germany remains the principal destination for outflows from Austria

Total inflows by country of origin – 2015-2019

Inflows to Austria					
Billion cigarettes	2015	2016	2017	2018	2019
Czech Republic	0.41	0.50	0.72	0.42	0.46
Slovakia	0.09	0.13	0.17	0.18	0.28
Hungary	0.25	0.40	0.31	0.24	0.23
Slovenia	0.42	0.37	0.34	0.39	0.20
The Republic Of North Macedonia	0.04	0.19	0.09	0.08	0.16
Other	0.76	1.07	0.83	0.78	0.85
Total Inflows	1.97	2.67	2.47	2.08	2.18

Total outflows by country of origin – 2015-2019

Outflows from Austria					
Billion cigarettes	2015	2016	2017	2018	2019
Germany	(0.15)	(0.18)	(0.21)	(0.20)	(0.25)
Czech Republic	(0.01)	(0.00)	(0.00)	(0.01)	(0.04)
Switzerland	(0.04)	(0.04)	(0.05)	(0.05)	(0.03)
Netherlands	(0.02)	(0.02)	(0.02)	(0.04)	(0.03)
France	(0.01)	(0.02)	(0.01)	(0.02)	(0.01)
Other	(0.12)	(0.07)	(0.09)	(0.13)	(0.09)
Total Outflows	(0.36)	(0.33)	(0.40)	(0.45)	(0.44)

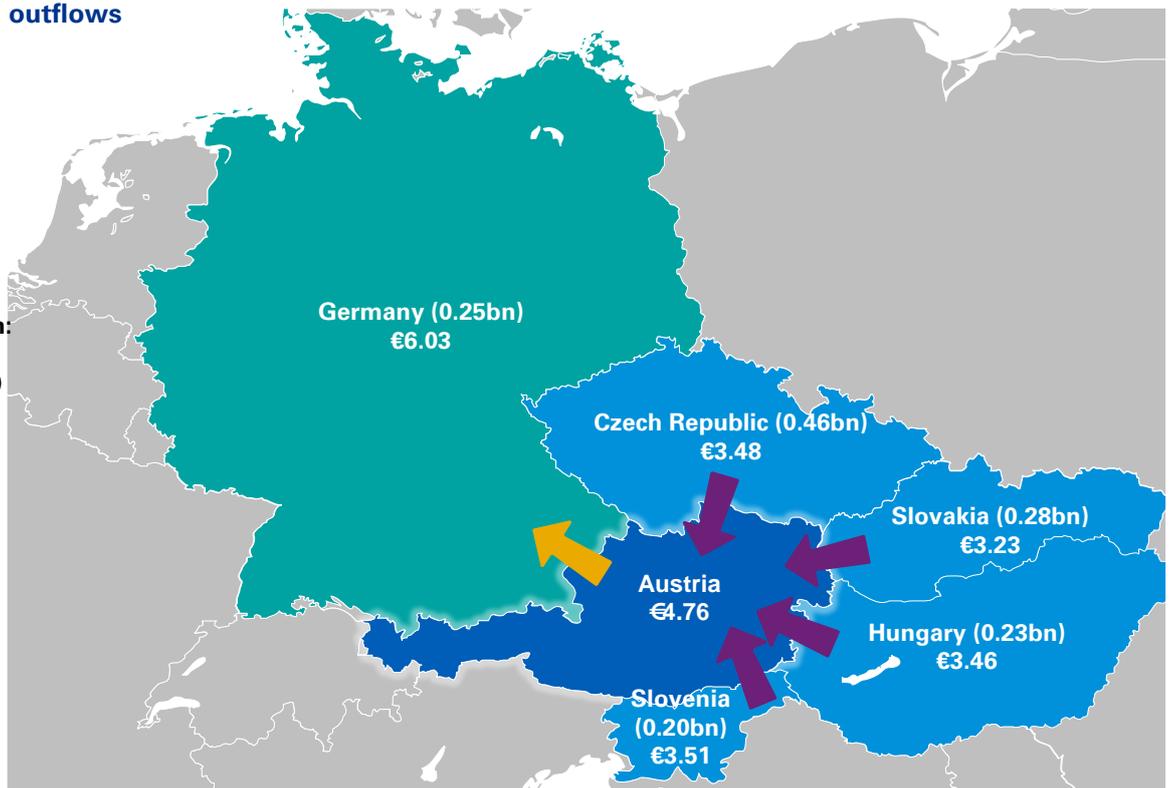
Note: The inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows
Source: KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

Key flows and C&C consumption patterns

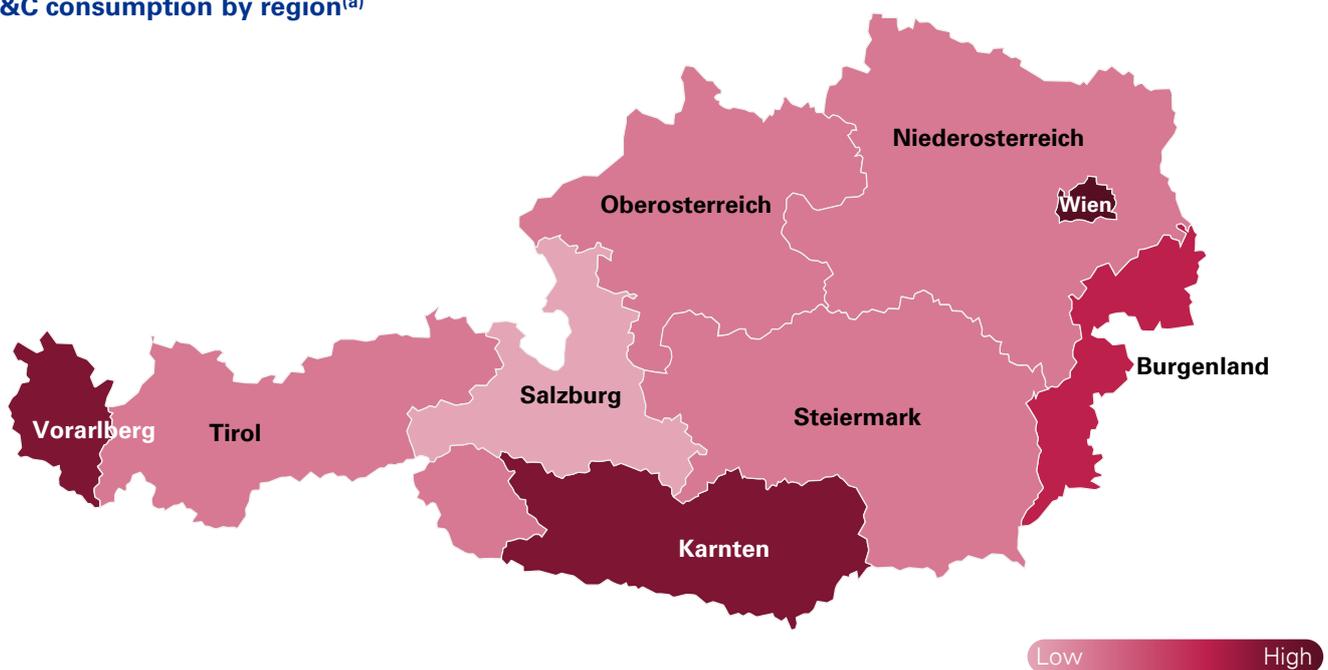
Key inflows and outflows

- Austria
- Source
- Destination
- Inflow
- Outflow

Label description:
Country (Inflow/
Outflow Volume)
WAP



C&C consumption by region^(a)

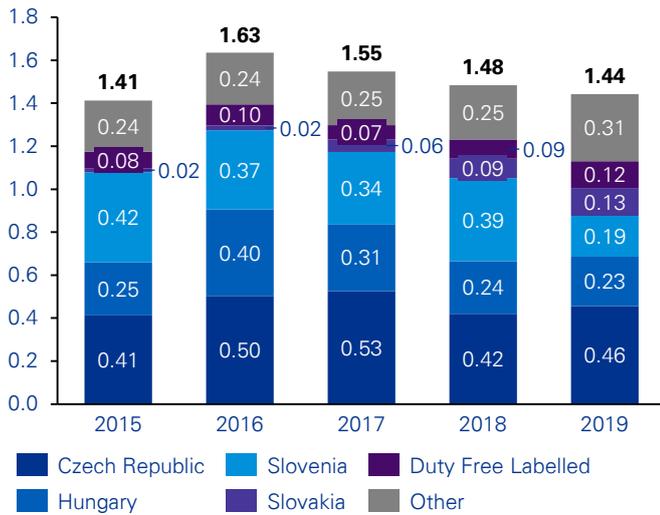


Note: (a) C&C scale is relative to this market and is not comparable with other markets in the study

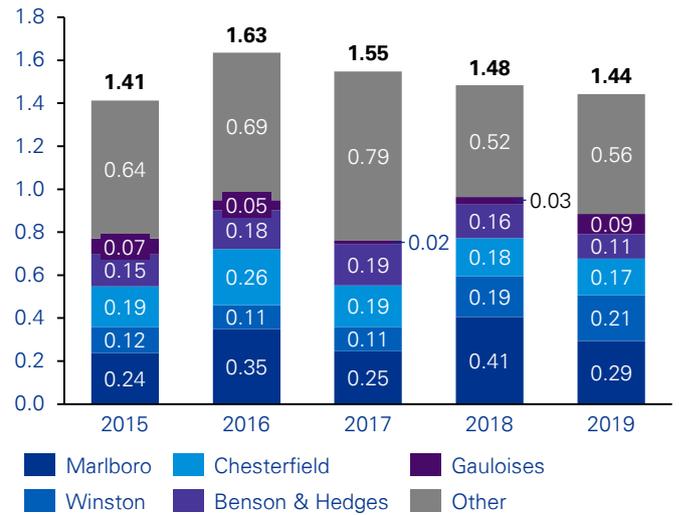
Source: (1) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

ND(L) and C&C flows

ND(L) by country of origin – 2015-2019 (bn cigarettes)

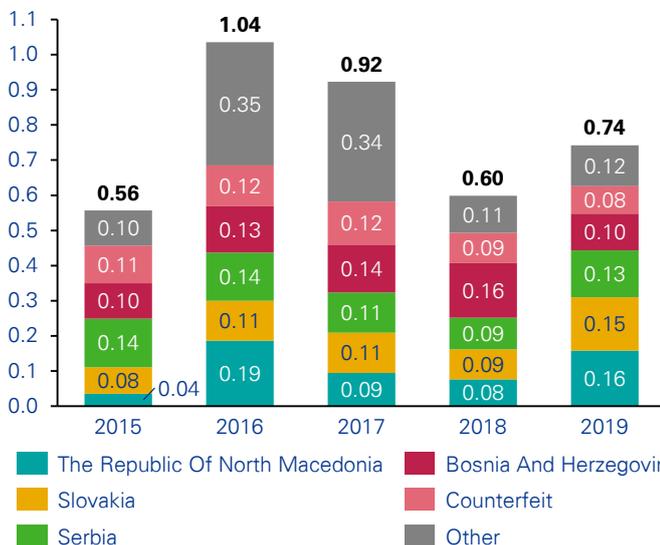


ND(L) by brand – 2015-2019 (bn cigarettes)

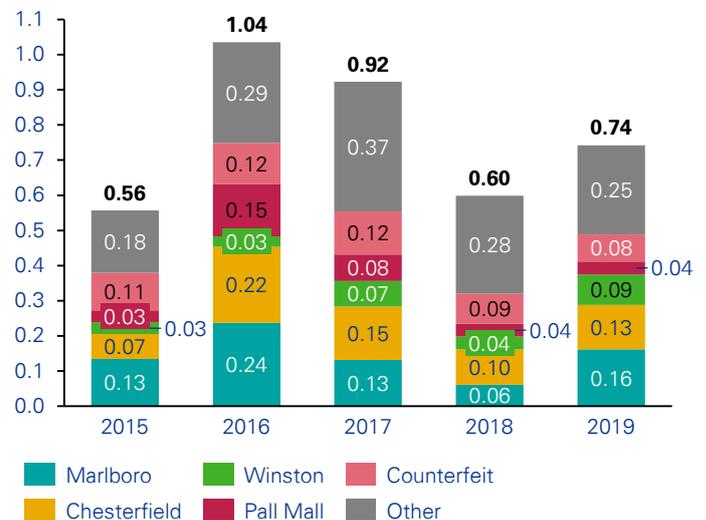


- Increased C&C was supported by increased flows from The Republic of North Macedonia, Slovakia and Serbia
- The highest regional C&C was recorded in the Wien, Karnten and Vorarlberg regions

C&C by country of origin – 2015-2019 (bn cigarettes)



C&C by brand – 2015-2019 (bn cigarettes)

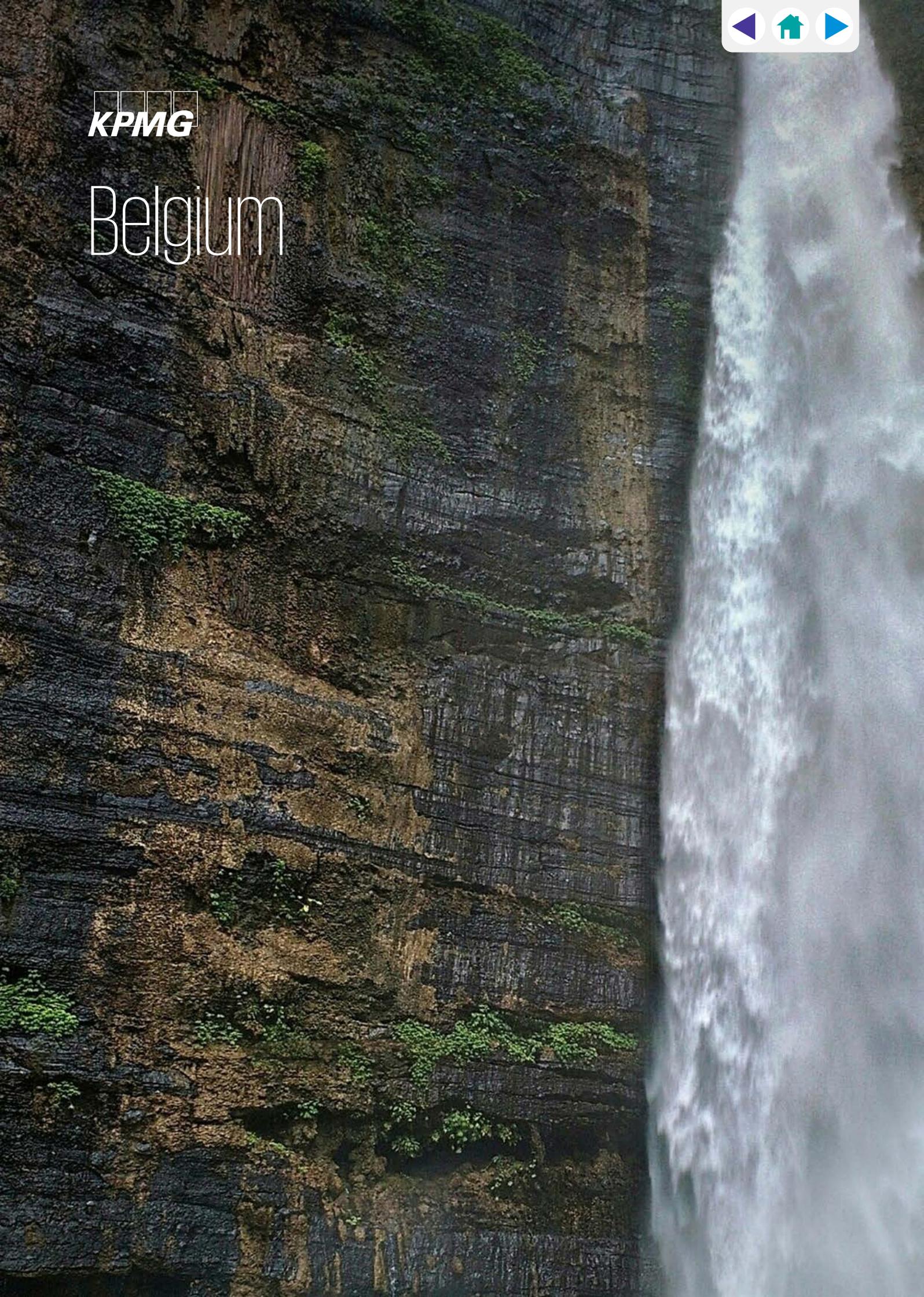


Source: (1) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section



KPMG

Belgium





C&C cigarette consumption and total consumption

8.7bn

Cigarettes consumed



-0.27bn on 2018

0.6bn

C&C cigarettes consumed



+0.14bn on 2018

7.5%

Of total consumption was C&C



+1.80%pts on 2018

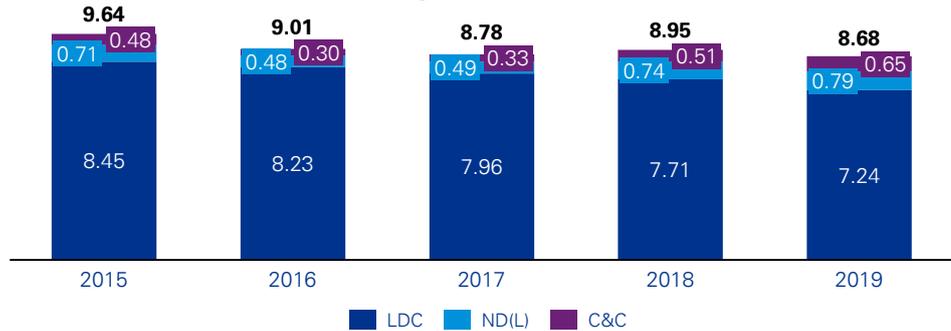
€156m

Total tax revenue lost from C&C



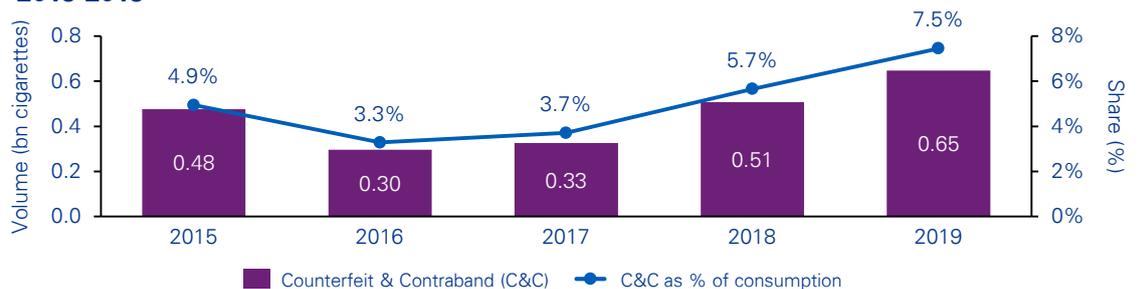
+€38m on 2018

Total consumption – 2015-2019 (bn cigarettes)

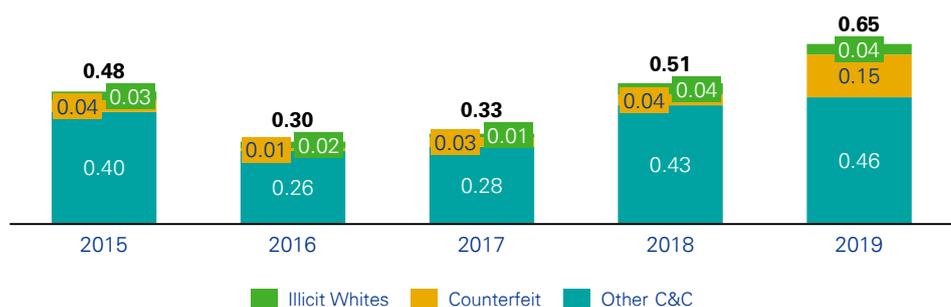


- C&C increased to 7.5% of total cigarette consumption, or 0.65bn cigarettes in 2019, largely due to increased counterfeit and Bulgarian inflows
- Total consumption declined by 3% to 8.7bn, driven by lower domestic consumption as a result of increased outflows to neighbouring France

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2015-2019



Breakdown of C&C consumption by type – 2015-2019 (bn cigarettes)



Note: C&C breakdown chart only includes counterfeit volumes related to brands of manufacturers who participate in the empty pack/yellow bag surveys. Total tax revenue lost represents estimated excise and VAT if C&C volumes had been consumed legally in the country of study

Source: KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

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Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2015-2019

Total Belgium Consumption						
Billion cigarettes	2015	2016	2017	2018	2019	2018-19 (%)
Legal Domestic Sales (LDS)	10.60	10.18	9.51	9.43	9.47	1%
Outflows	(2.15)	(1.94)	(1.55)	(1.72)	(2.23)	30%
Legal Domestic Consumption (LDC)	8.45	8.23	7.96	7.71	7.24	(6%)
Non-Domestic Legal (ND(L))	0.71	0.48	0.49	0.74	0.79	7%
Counterfeit and Contraband (C&C)	0.48	0.30	0.33	0.51	0.65	28%
Total Non-Domestic	1.18	0.77	0.82	1.24	1.44	16%
Total Consumption	9.64	9.00	8.78	8.95	8.68	(3%)

- Non-domestic inflows to Belgium continued the increasing trend evident since 2016
- Inflows from Bulgaria, Luxembourg and France increased in 2019
- Outflows to France increased against a backdrop of increasing price differential in 2019

Total inflows by country of origin – 2015-2019

Inflows to Belgium					
Billion cigarettes	2015	2016	2017	2018	2019
Bulgaria	0.06	0.03	0.06	0.09	0.20
Luxembourg	0.17	0.13	0.09	0.10	0.18
Duty Free Labelled	0.20	0.17	0.12	0.19	0.16
Counterfeit	0.04	0.01	0.03	0.04	0.15
France	0.10	0.03	0.03	0.06	0.13
Other	0.61	0.40	0.48	0.77	0.61
Total Inflows	1.18	0.77	0.82	1.24	1.44

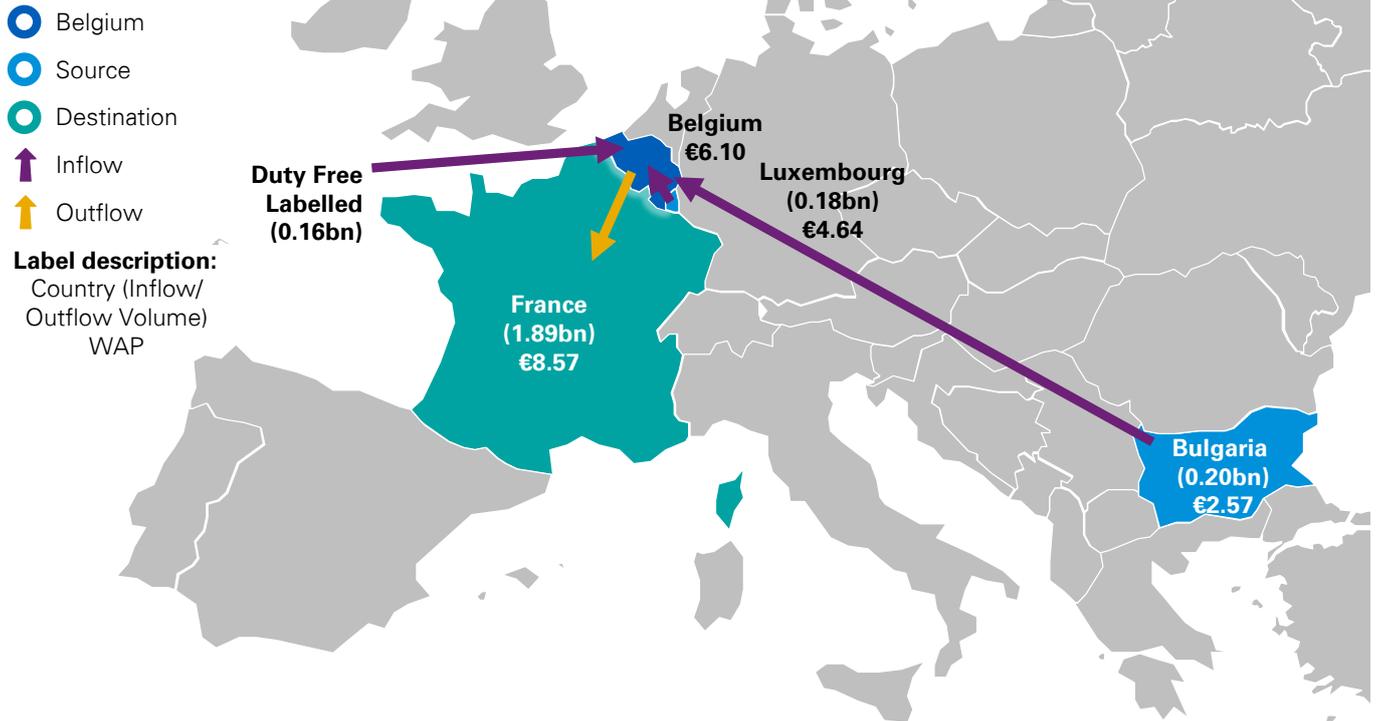
Total outflows by country of origin – 2015-2019

Outflows from Belgium					
Billion cigarettes	2015	2016	2017	2018	2019
France	(1.69)	(1.47)	(1.28)	(1.42)	(1.89)
Other	(0.46)	(0.47)	(0.27)	(0.29)	(0.34)
Total Outflows	(2.15)	(1.94)	(1.55)	(1.72)	(2.23)

Note: The inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows
 Source: KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

Key flows and C&C consumption patterns

Key inflows and outflows



C&C consumption by region^(a)



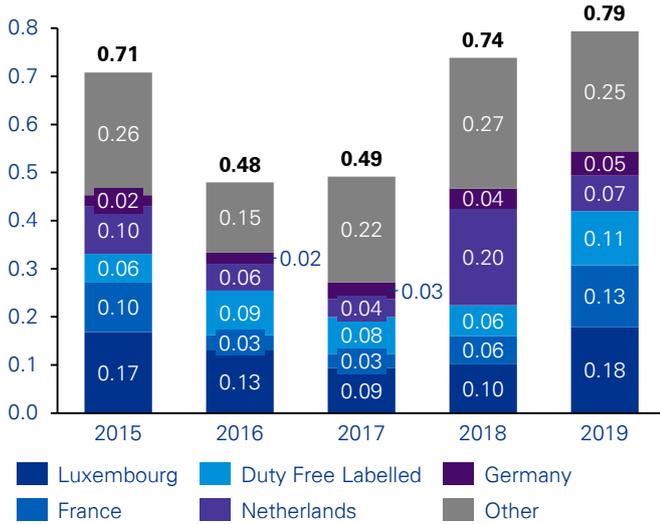
Low High

Note: (a) C&C scale is relative to this market and is not comparable with other markets in the study

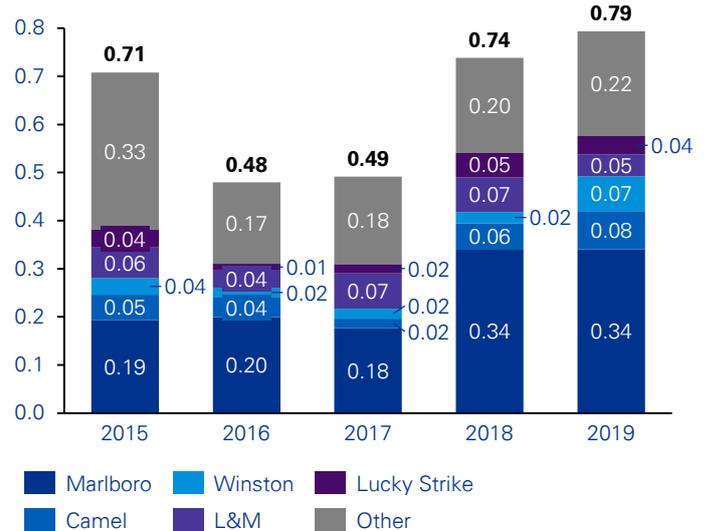
Source: (1) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

ND(L) and C&C flows

ND(L) by country of origin – 2015-2019 (bn cigarettes)

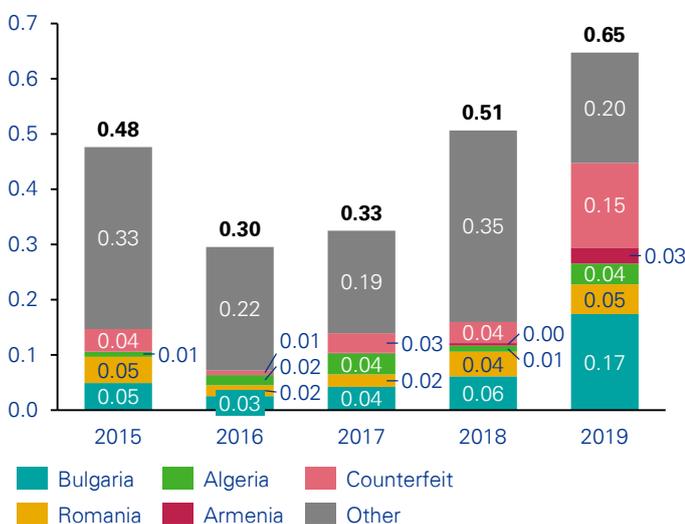


ND(L) by brand – 2015-2019 (bn cigarettes)

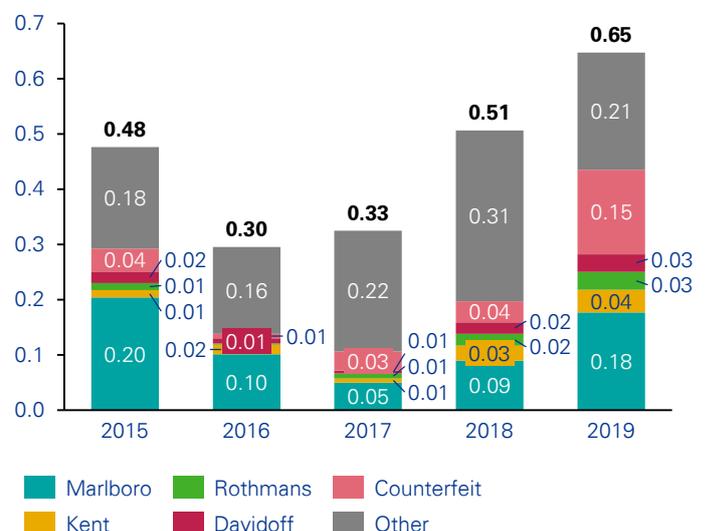


- Legal inflows increased by 0.05bn alongside an increase in Luxembourg, France and Duty Free ND(L)
- Increasing flows from Bulgaria and counterfeit were the largest drivers of increased C&C
- Regional C&C was highest in the West Flanders region. 39% of C&C in this region was from Bulgaria and 15% was from Romania

C&C by country of origin – 2015-2019 (bn cigarettes)



C&C by brand – 2015-2019 (bn cigarettes)



Source: (1) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section



KPMG

Bulgaria



C&C cigarette consumption and total consumption

14.7bn

Cigarettes consumed



+0.50bn on 2018

0.3bn

C&C cigarettes consumed



-0.17bn on 2018

2.4%

Of total consumption was C&C



-1.30%pts on 2018

€38m

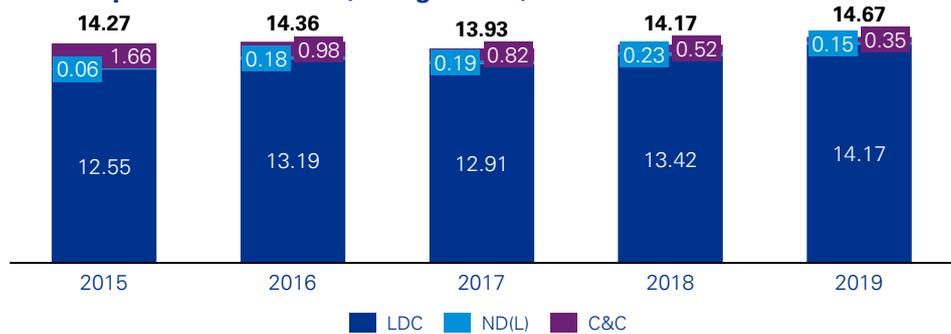
(BGN74m)⁽¹⁾

Total tax revenue lost from C&C



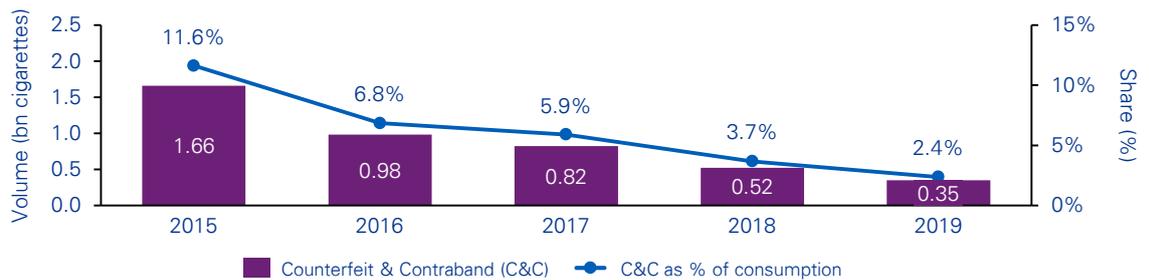
-€21m on 2018

Total consumption – 2015-2019 (bn cigarettes)

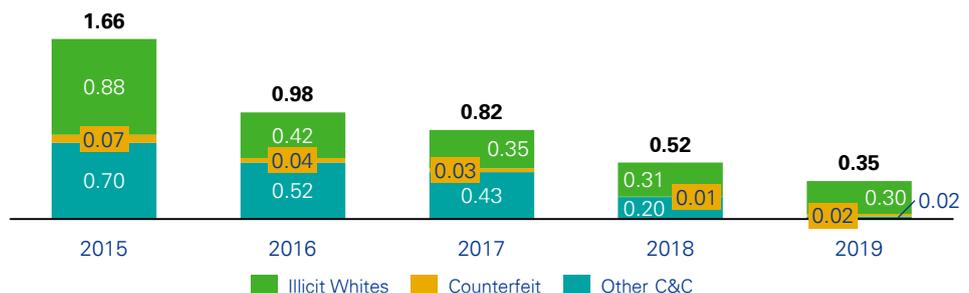


- C&C continued its long term decline and formed 2.4% of total cigarette consumption in 2019
- Total consumption increased again in 2019 suggesting that consumers are continuing to switch to manufactured cigarettes from other tobacco products
- Illicit Whites accounted for the majority of C&C in 2019, increasing share of inflows at the expense of Other C&C

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2015-2019



Breakdown of C&C consumption by type – 2015-2019 (bn cigarettes)



Note: C&C breakdown chart only includes counterfeit volumes related to brands of manufacturers who participate in the empty pack/yellow bag surveys. Total tax revenue lost represents estimated excise and VAT if C&C volumes had been consumed legally in the country of study

Source: (1) EUR 1 = BGN 1.96, InforEuro, European Commission, December 2019; (2) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2015-2019

Total Bulgaria Consumption						
Billion cigarettes	2015	2016	2017	2018	2019	2018-19 (%)
Legal Domestic Sales (LDS)	13.16	13.83	13.71	14.34	15.31	7%
Outflows	(0.61)	(0.64)	(0.79)	(0.93)	(1.14)	23%
Legal Domestic Consumption (LDC)	12.55	13.19	12.91	13.42	14.17	6%
Non-Domestic Legal (ND(L))	0.06	0.18	0.19	0.23	0.15	(34%)
Counterfeit and Contraband (C&C)	1.66	0.98	0.82	0.52	0.35	(33%)
Total Non-Domestic	1.72	1.16	1.02	0.75	0.50	(33%)
Total Consumption	14.27	14.36	13.93	14.17	14.67	4%

- Illicit Whites with no country-specific labelling continued to be the largest element of non-domestic flows, albeit with declining volumes, all of which are considered illicit
- Outflows from Bulgaria were mainly to other EU countries with high price differentials. Outflows increased by 23% in 2019, continuing the long-term growth trend

Total inflows by country of origin – 2015-2019

Inflows to Bulgaria						
Billion cigarettes	2015	2016	2017	2018	2019	
IWs with no country-specific labelling	0.82	0.36	0.36	0.40	0.26	
Duty Free Labelled	0.42	0.34	0.37	0.16	0.07	
The Republic Of North Macedonia	0.13	0.16	0.06	0.06	0.03	
Serbia	0.03	0.03	0.02	0.02	0.02	
Counterfeit	0.07	0.04	0.03	0.01	0.02	
Other	0.25	0.22	0.16	0.10	0.09	
Total Inflows	1.72	1.16	1.02	0.75	0.50	

Total outflows by country of origin – 2015-2019

Outflows from Bulgaria						
Billion cigarettes	2015	2016	2017	2018	2019	
France	(0.13)	(0.11)	(0.22)	(0.28)	(0.26)	
UK	(0.08)	(0.09)	(0.16)	(0.15)	(0.21)	
Belgium	(0.06)	(0.03)	(0.06)	(0.09)	(0.20)	
Germany	(0.15)	(0.12)	(0.14)	(0.14)	(0.18)	
Netherlands	(0.02)	(0.06)	(0.04)	(0.05)	(0.05)	
Other	(0.17)	(0.23)	(0.17)	(0.23)	(0.22)	
Total Outflows	(0.61)	(0.64)	(0.79)	(0.93)	(1.14)	

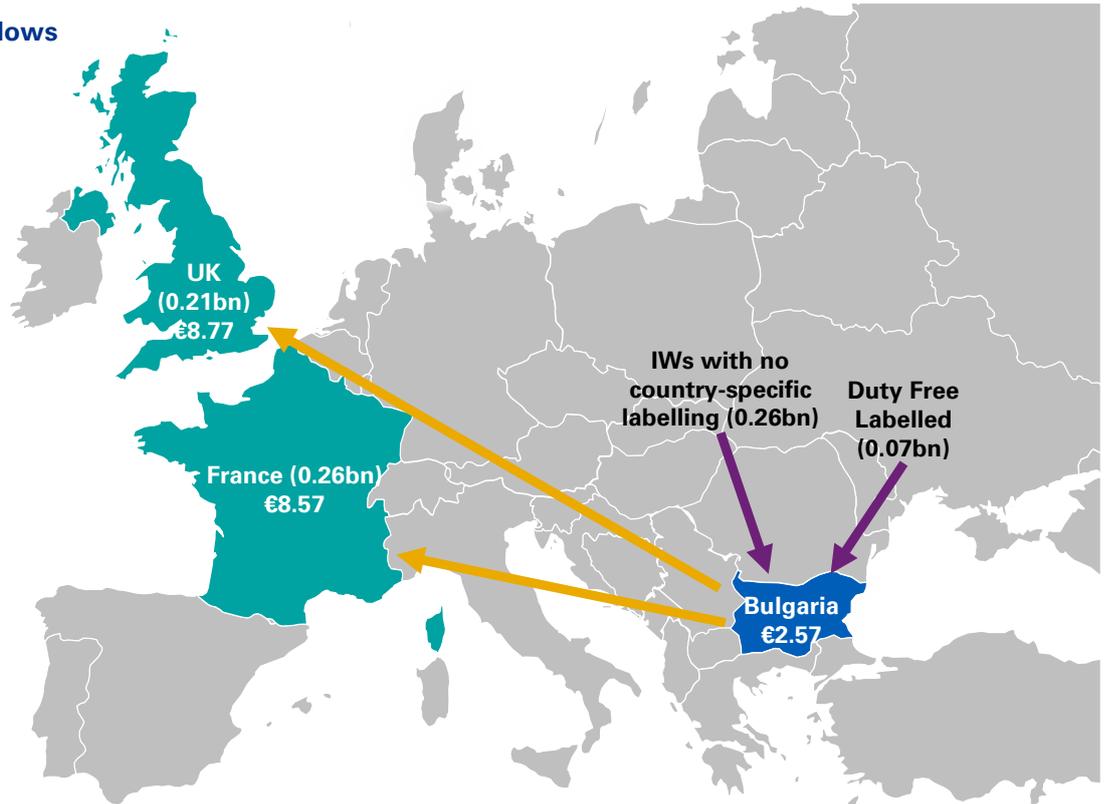
Note: The inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows
Source: KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

Key flows and C&C consumption patterns

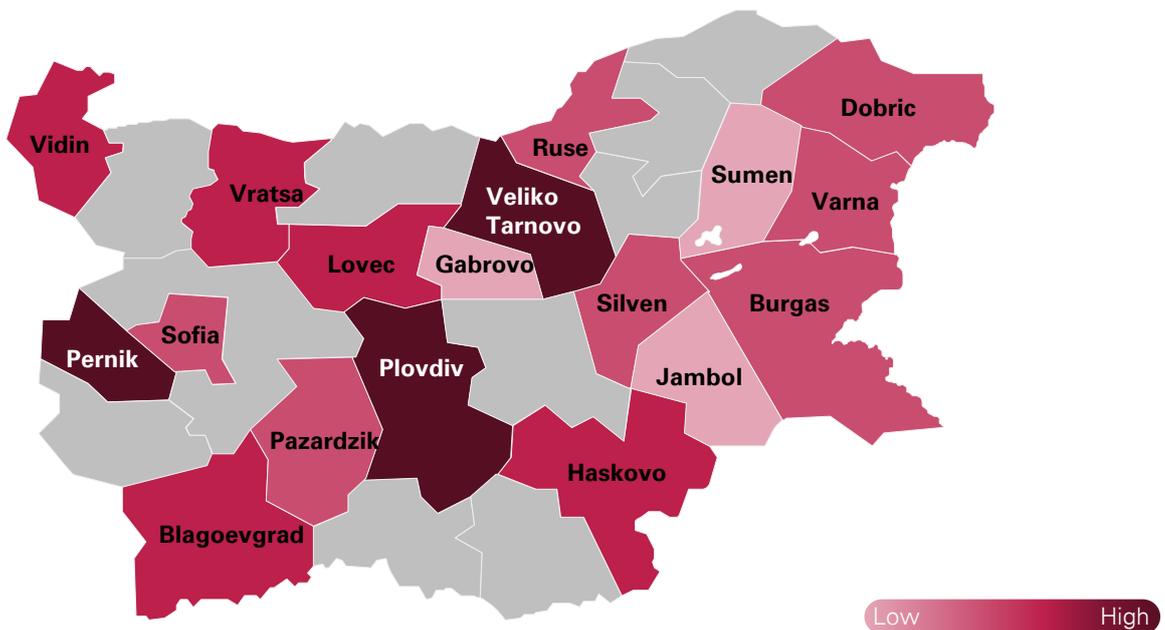
Key inflows and outflows

- Bulgaria
- Source
- Destination
- Inflow
- Outflow

Label description:
Country (Inflow/
Outflow Volume)
WAP



C&C consumption by region^(a)

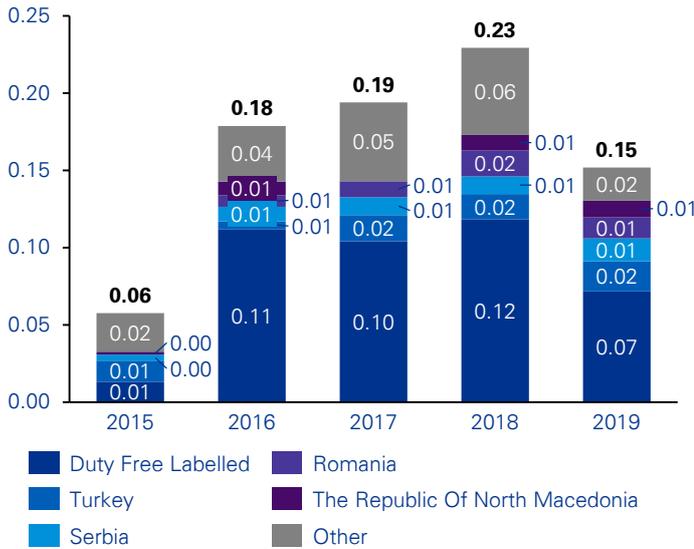


Note: (a) C&C scale is relative to this market and is not comparable with other markets in the study

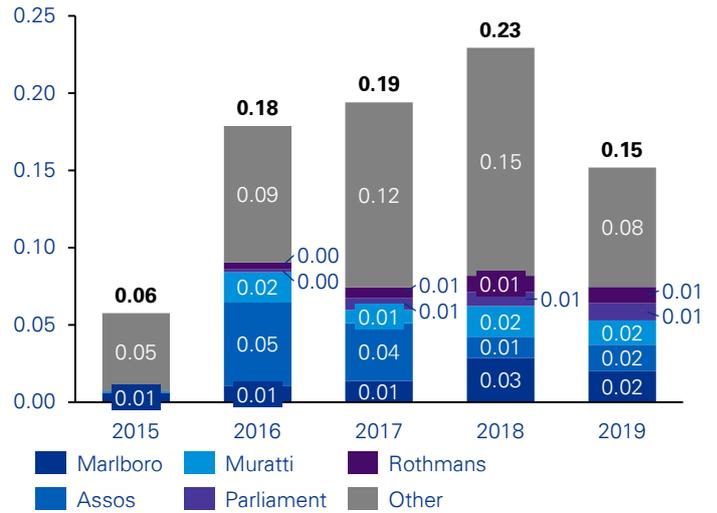
Source: (1) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

ND(L) and C&C flows

ND(L) by country of origin – 2015-2019 (bn cigarettes)

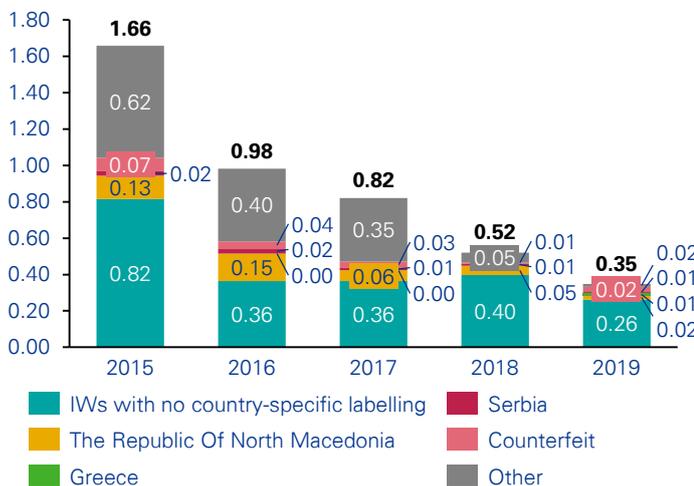


ND(L) by brand – 2015-2019 (bn cigarettes)

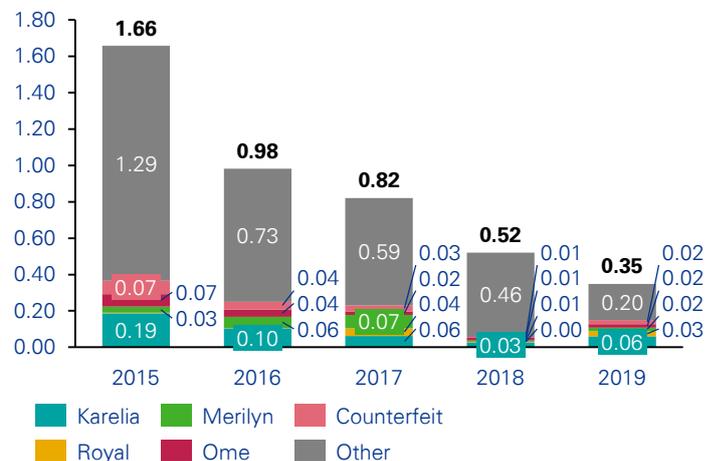


- Non-domestic legal declines in 2019 were driven by a decline in Duty Free and a number of smaller inflows within the 'Other' category
- The largest C&C inflows in 2019 were Illicit Whites brands

C&C by country of origin – 2015-2019 (bn cigarettes)



C&C by brand – 2015-2019 (bn cigarettes)

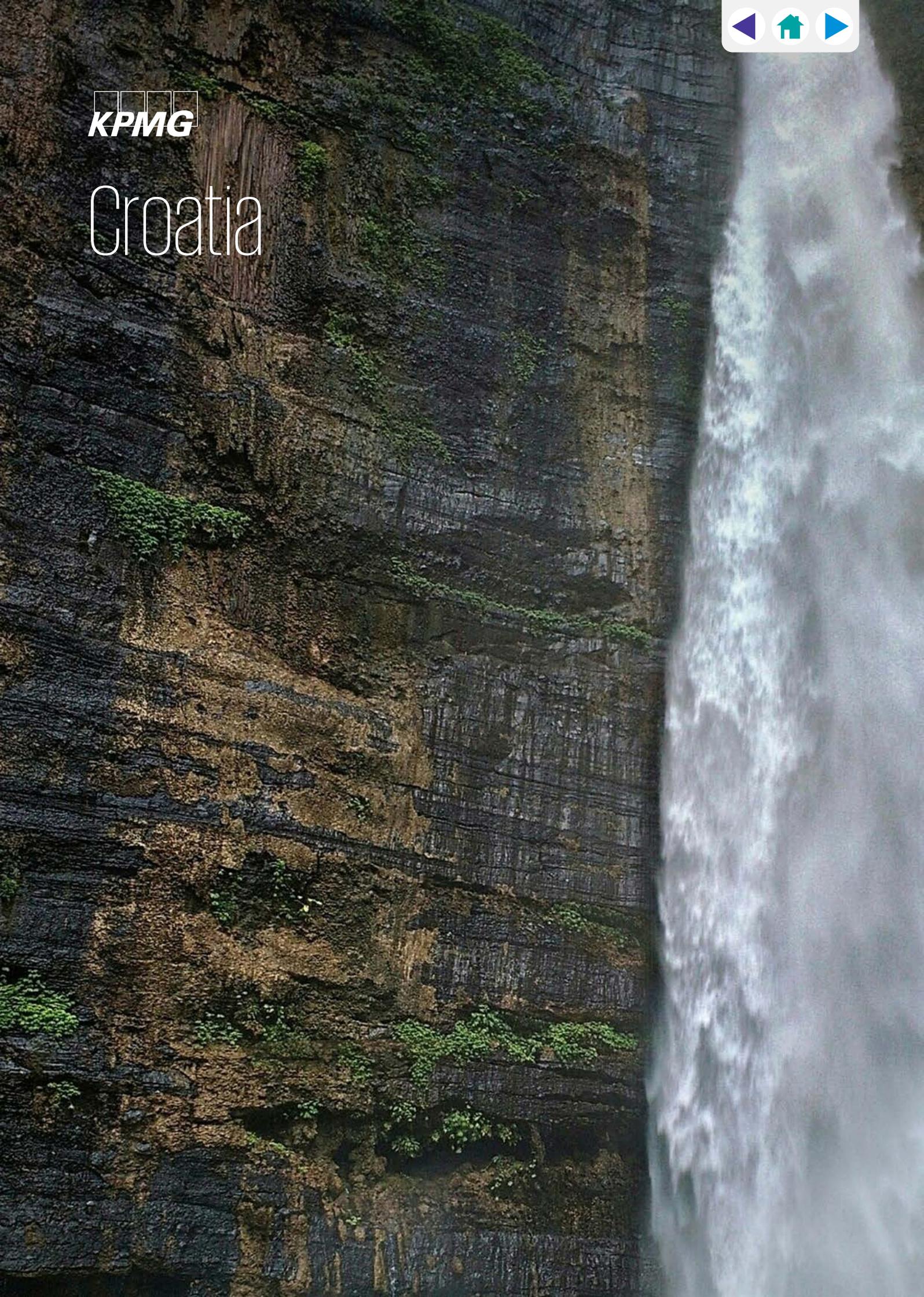


Source: (1) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section



KPMG

Croatia





C&C cigarette consumption and total consumption

6.4bn

Cigarettes consumed



+0.01bn on 2018

0.5bn

C&C cigarettes consumed



+0.07bn on 2018

7.4%

Of total consumption was C&C



+1.09%pts on 2018

€64m

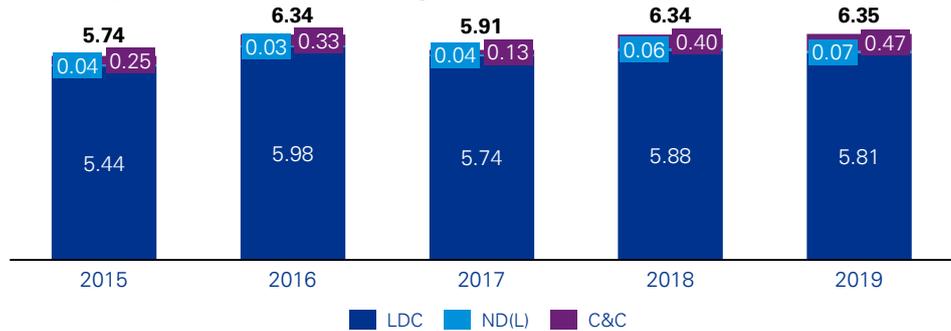
(kn475m)⁽¹⁾

Total tax revenue lost from C&C



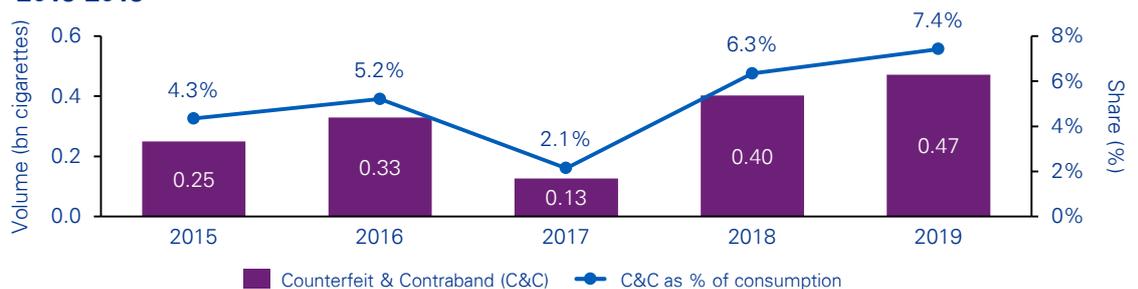
+€13m on 2018

Total consumption – 2015-2019 (bn cigarettes)

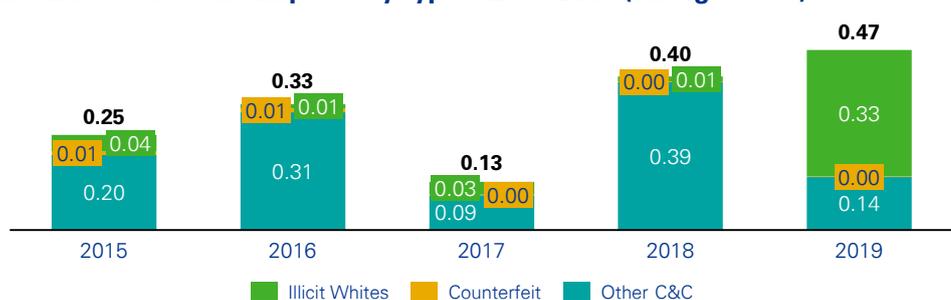


- C&C increased to 7.4% of total cigarette consumption in 2019
- Illicit Whites increased at the expense of other C&C, becoming the largest element of C&C for the first time
- Total cigarette consumption remained stable

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2015-2019



Breakdown of C&C consumption by type – 2015-2019 (bn cigarettes)



Note: C&C breakdown chart only includes counterfeit volumes related to brands of manufacturers who participate in the empty pack/yellow bag surveys. Total tax revenue lost represents estimated excise and VAT if C&C volumes had been consumed legally in the country of study

Source: (1) EUR 1 = kn 7.44, InforEuro, European Commission, December 2019; (2) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

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Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2015-2019

Total Croatia Consumption						
Billion cigarettes	2015	2016	2017	2018	2019	2018-19 (%)
Legal Domestic Sales (LDS)	5.86	6.30	6.07	6.27	6.22	(1%)
Outflows	(0.42)	(0.33)	(0.33)	(0.39)	(0.40)	2%
Legal Domestic Consumption (LDC)	5.44	5.98	5.74	5.88	5.81	(1%)
Non-Domestic Legal (ND(L))	0.04	0.03	0.04	0.06	0.07	6%
Counterfeit and Contraband (C&C)	0.25	0.33	0.13	0.40	0.47	17%
Total Non-Domestic	0.29	0.35	0.17	0.47	0.54	16%
Total Consumption	5.74	6.33	5.91	6.34	6.35	0%

- Inflows of Illicit Whites with no country-specific labelling increased in 2019, replacing Bosnia and Herzegovina as the largest source of C&C in Croatia
- Outflows from Croatia remained stable

Total inflows by country of origin – 2015-2019

Inflows to Croatia						
Billion cigarettes	2015	2016	2017	2018	2019	
IWs with no country-specific labelling	0.03	0.00	0.03	0.02	0.32	
Bosnia And Herzegovina	0.16	0.27	0.06	0.27	0.10	
Serbia	0.02	0.04	0.03	0.12	0.04	
Other	0.08	0.04	0.04	0.06	0.08	
Total Inflows	0.29	0.35	0.17	0.47	0.54	

Total outflows by country of origin – 2015-2019

Outflows from Croatia						
Billion cigarettes	2015	2016	2017	2018	2019	
Germany	(0.27)	(0.11)	(0.15)	(0.16)	(0.18)	
Slovenia	(0.04)	(0.03)	(0.04)	(0.07)	(0.06)	
Austria	(0.03)	(0.05)	(0.04)	(0.03)	(0.03)	
France	(0.01)	(0.06)	(0.01)	(0.03)	(0.03)	
Italy	(0.01)	(0.02)	(0.02)	(0.04)	(0.02)	
Other	(0.06)	(0.06)	(0.08)	(0.06)	(0.07)	
Total Outflows	(0.42)	(0.33)	(0.33)	(0.39)	(0.40)	

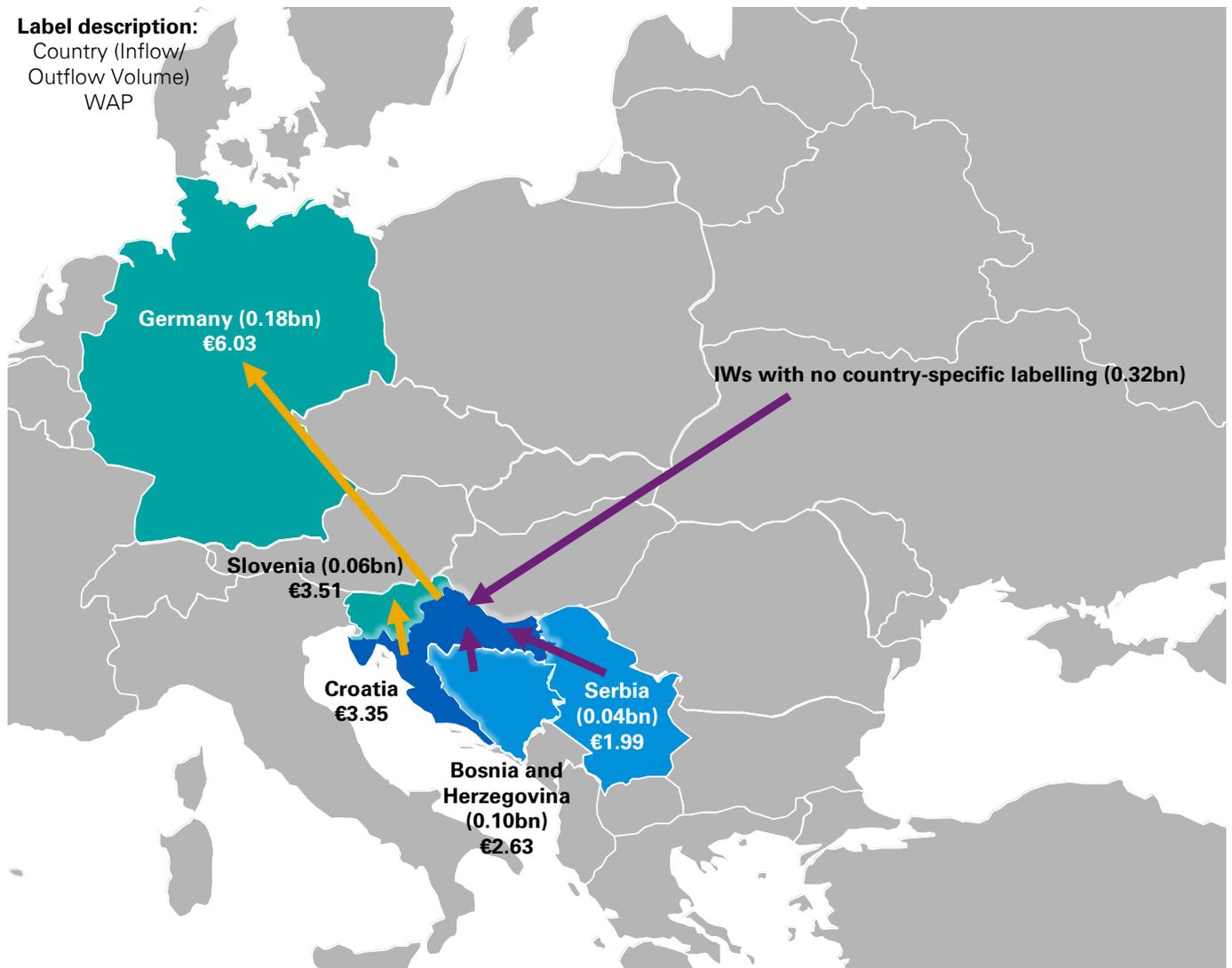
Note: The inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows
Source: KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

Key flows and C&C consumption patterns

Key inflows and outflows

- Croatia
- Source
- Destination
- Inflow
- Outflow

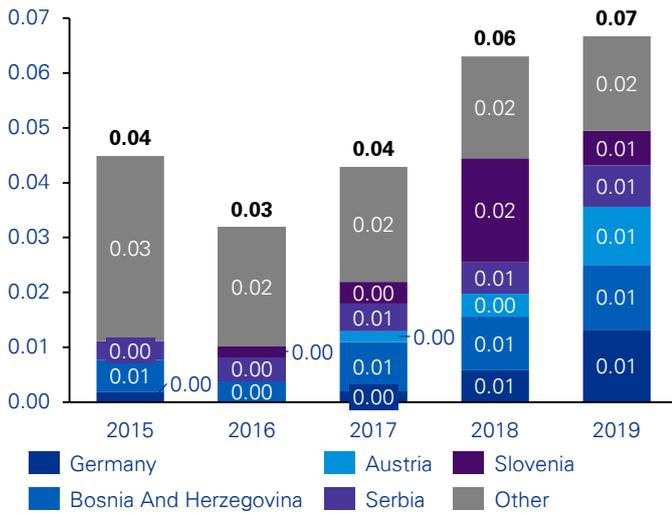
Label description:
Country (Inflow/
Outflow Volume)
WAP



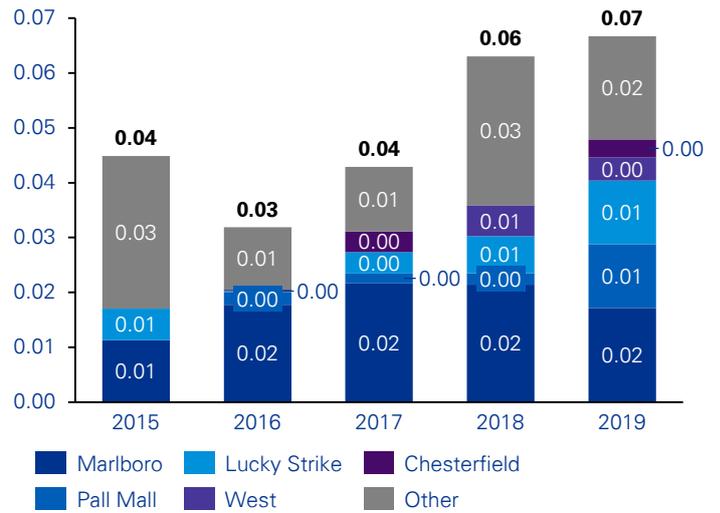
Source: (1) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

ND(L) and C&C flows

ND(L) by country of origin – 2015-2019 (bn cigarettes)



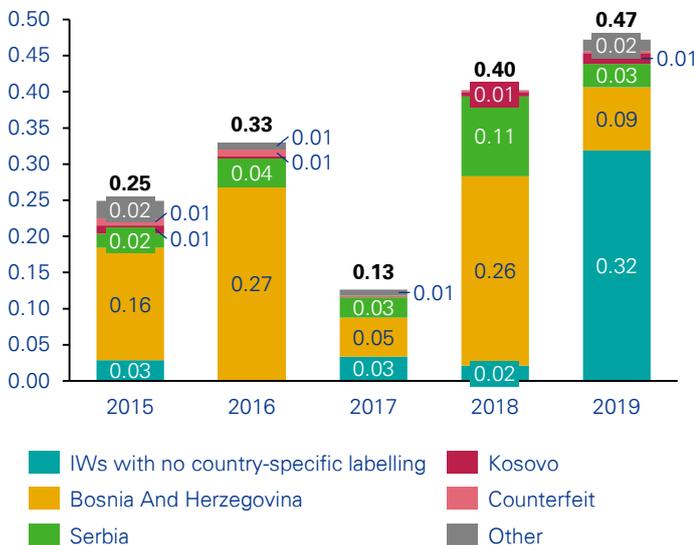
ND(L) by brand – 2015-2019 (bn cigarettes)



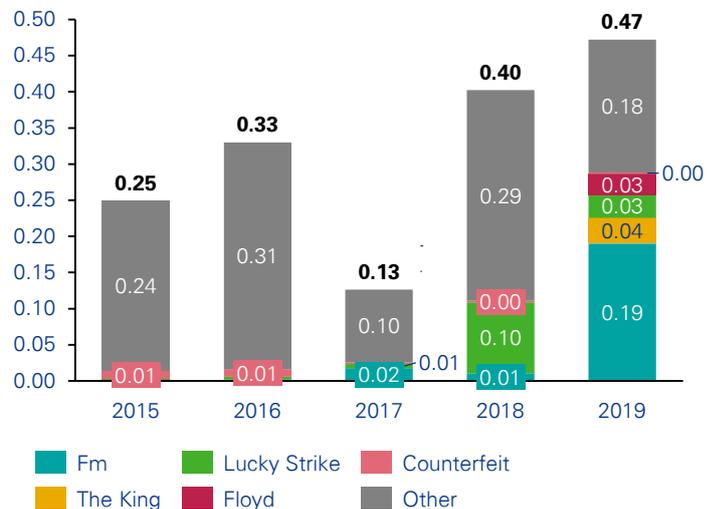
— Illicit Whites with no country-specific labelling increased their share of C&C flows in 2019

— Flows of one Illicit White brand, FM, formed 40% of total C&C flows in 2019

C&C by country of origin – 2015-2019 (bn cigarettes)



C&C by brand – 2015-2019 (bn cigarettes)

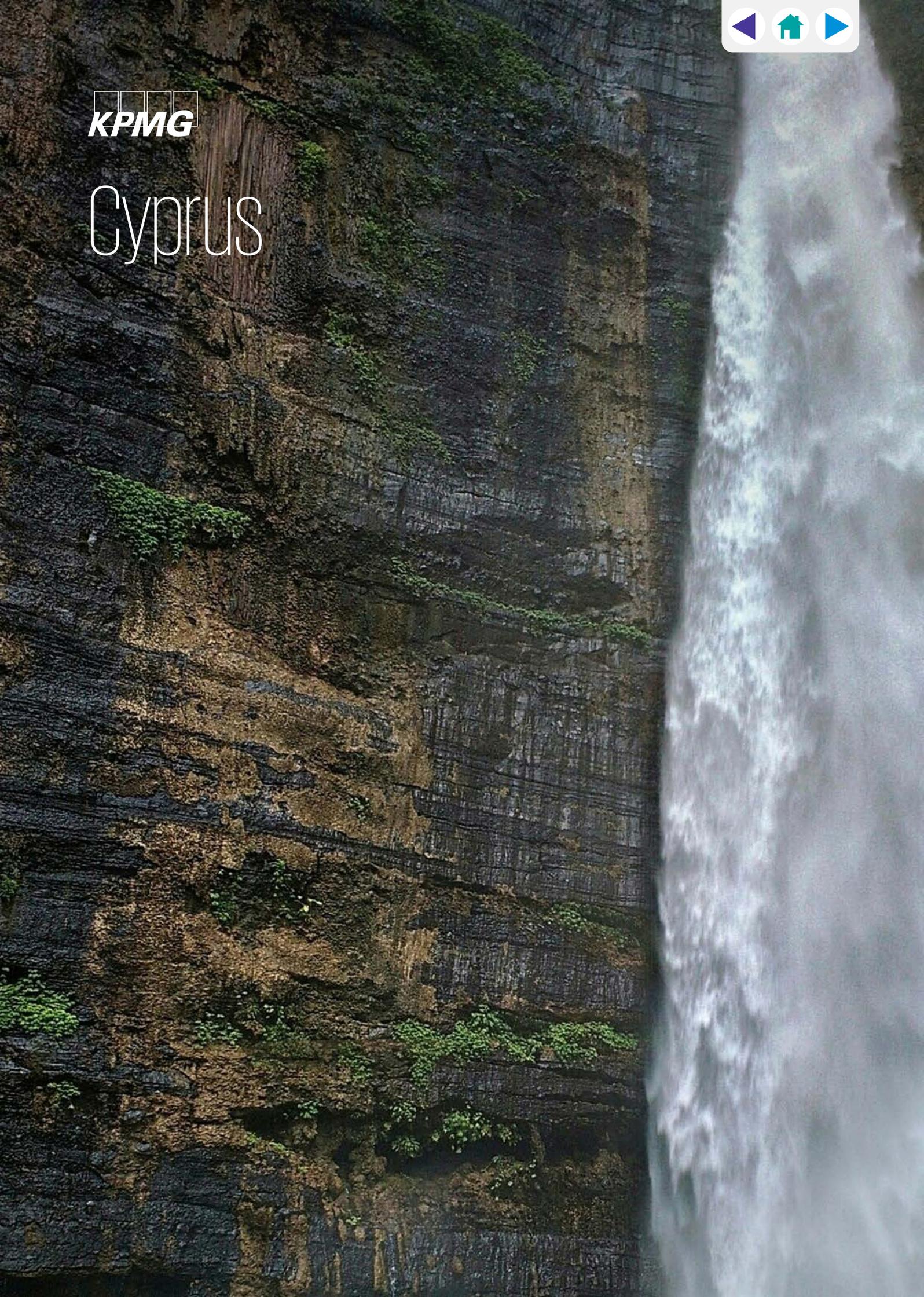


Source: (1) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section



KPMG

Cyprus





C&C cigarette consumption and total consumption

1.2bn

Cigarettes consumed



-0.04bn on 2018

0.2bn

C&C cigarettes consumed



+0.07bn on 2018

14.3%

Of total consumption was C&C



+6.16%pts on 2018

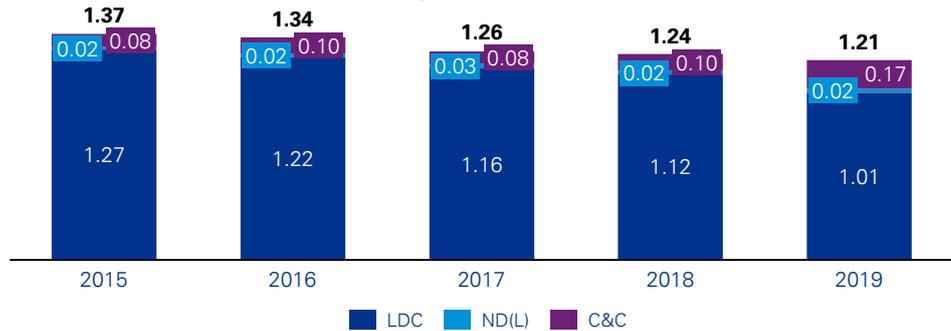
€28m

Total tax revenue lost from C&C



+€12m on 2018

Total consumption – 2015-2019 (bn cigarettes)

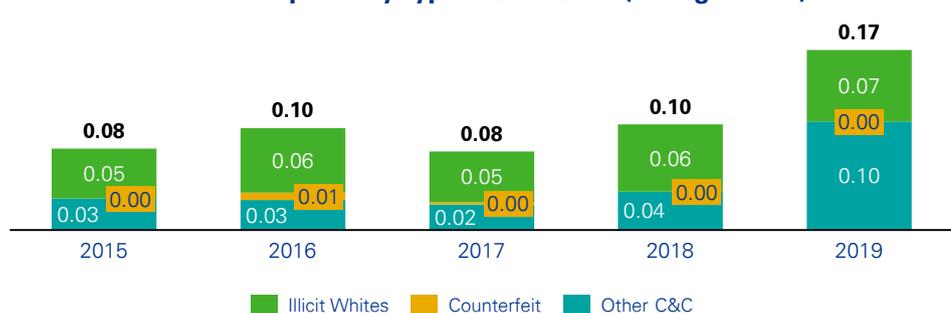


- C&C increased to 14.3% of total cigarette consumption in 2019, reaching the highest levels recorded in this study. This was principally driven by increased inflows from Northern Cyprus combined with a decline in legal domestic consumption
- Total cigarette consumption continues to decline, in line with the trend seen since 2015

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2015-2019



Breakdown of C&C consumption by type – 2015-2019 (bn cigarettes)



Note: C&C breakdown chart only includes counterfeit volumes related to brands of manufacturers who participate in the empty pack/yellow bag surveys. Total tax revenue lost represents estimated excise and VAT if C&C volumes had been consumed legally in the country of study

Source: KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section
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Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2015-2019

Total Cyprus Consumption						
Billion cigarettes	2015	2016	2017	2018	2019	2018-19 (%)
Legal Domestic Sales (LDS)	1.31	1.28	1.22	1.14	1.06	(8%)
Outflows	(0.03)	(0.05)	(0.06)	(0.02)	(0.04)	100%
Legal Domestic Consumption (LDC)	1.27	1.22	1.16	1.12	1.01	(10%)
Non-Domestic Legal (ND(L))	0.02	0.02	0.03	0.02	0.02	4%
Counterfeit and Contraband (C&C)	0.08	0.10	0.08	0.10	0.17	70%
Total Non-Domestic	0.09	0.12	0.10	0.12	0.20	58%
Total Consumption	1.37	1.34	1.26	1.24	1.21	(3%)

- The devaluation of the Turkish Lira increased the price gap and so supported an increase in inflows from Northern Cyprus
- Illicit Whites remained a feature of illicit consumption
- The UK was the largest outflow market. This flow is driven by tourism as Cyprus is a popular holiday destination from the UK

Total inflows by country of origin – 2015-2019

Inflows to Cyprus						
Billion cigarettes	2015	2016	2017	2018	2019	
Northern Cyprus	0.01	0.00	0.01	0.03	0.07	
IWs with no country-specific labelling	0.05	0.06	0.05	0.06	0.06	
Duty Free Labelled	0.02	0.02	0.02	0.01	0.05	
Other	0.02	0.03	0.03	0.01	0.01	
Total Inflows	0.09	0.12	0.10	0.12	0.20	

Total outflows by country of origin – 2015-2019

Outflows from Cyprus						
Billion cigarettes	2015	2016	2017	2018	2019	
UK	(0.02)	(0.03)	(0.03)	(0.01)	(0.03)	
Other	(0.01)	(0.03)	(0.02)	(0.01)	(0.01)	
Total Outflows	(0.03)	(0.05)	(0.06)	(0.02)	(0.04)	

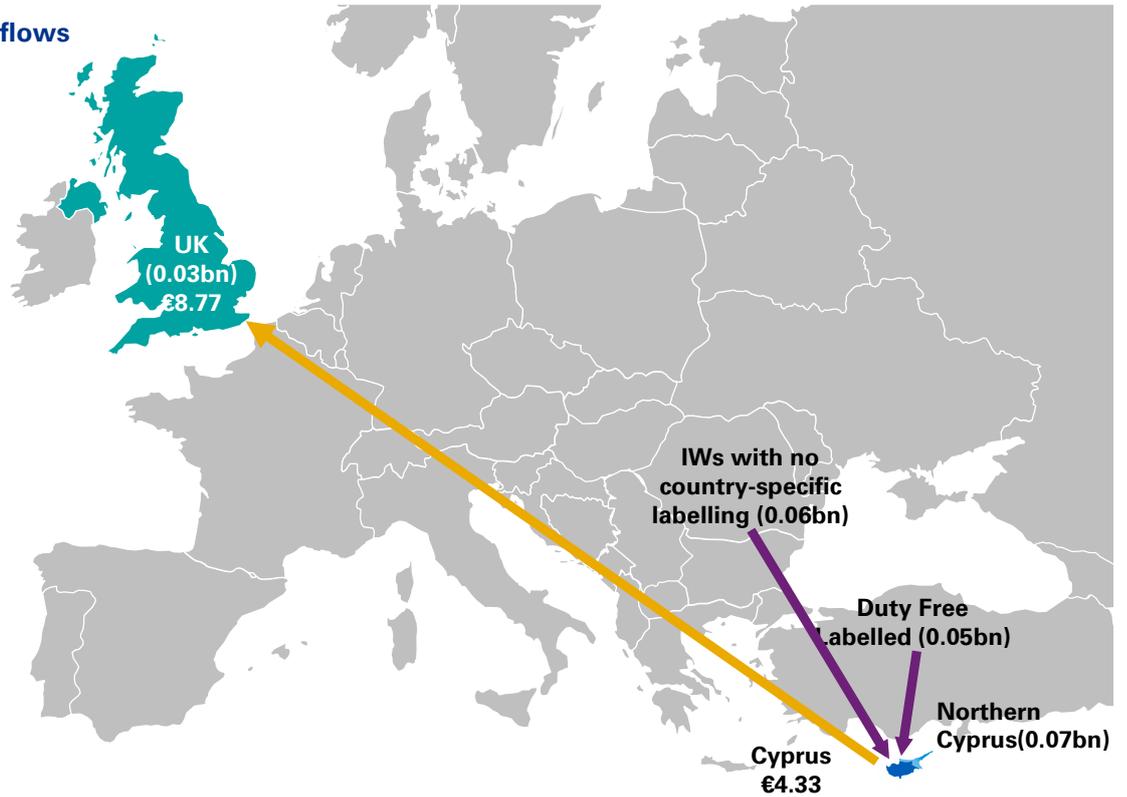
Note: The inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows
Source: KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

Key flows and C&C consumption patterns

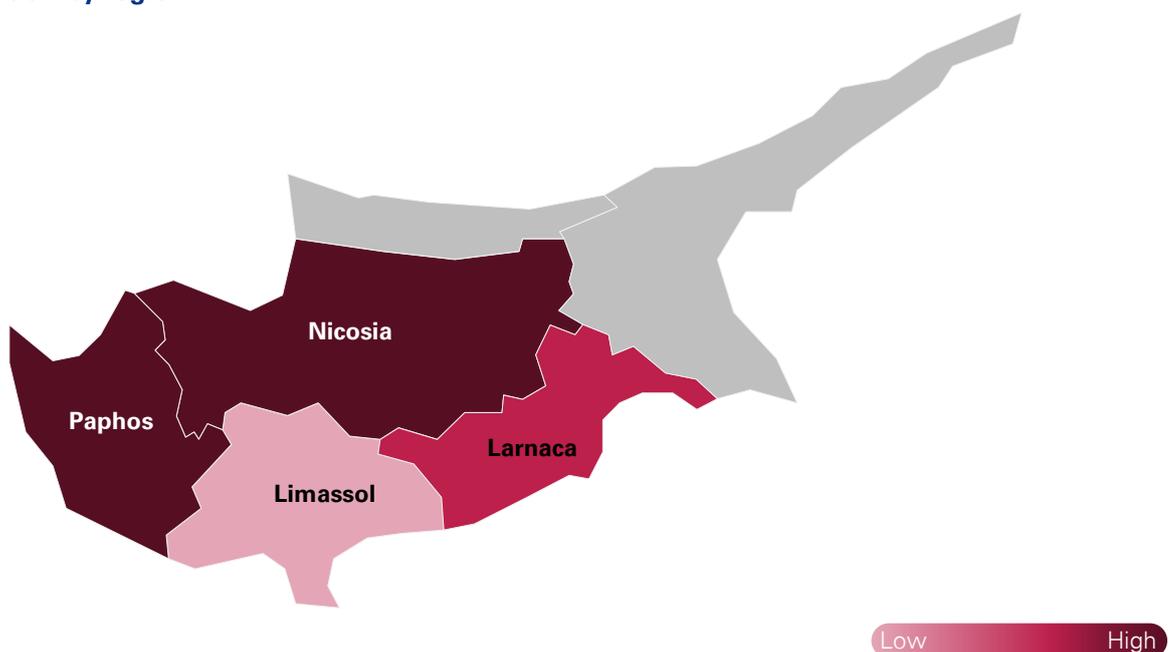
Key inflows and outflows

- Cyprus
- Source
- Destination
- Inflow
- Outflow

Label description:
Country (Inflow/
Outflow Volume)
WAP



C&C consumption by region^(a)

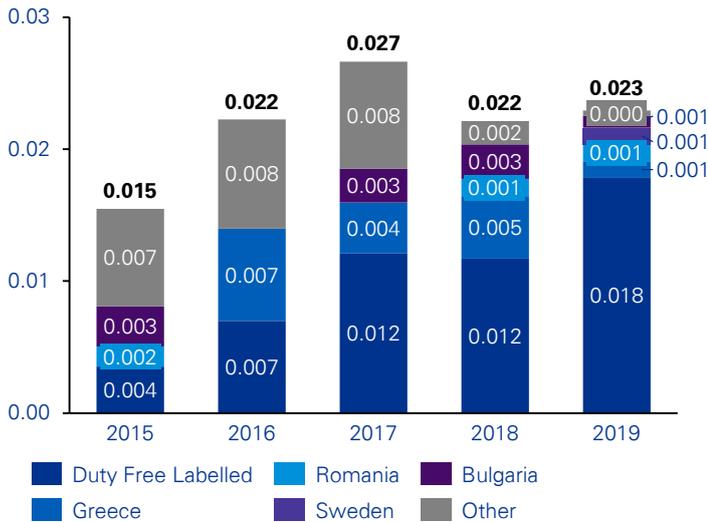


Note: (a) C&C scale is relative to this market and is not comparable with other markets in the study

Source: (1) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

ND(L) and C&C flows

ND(L) by country of origin – 2015-2019 (bn cigarettes)

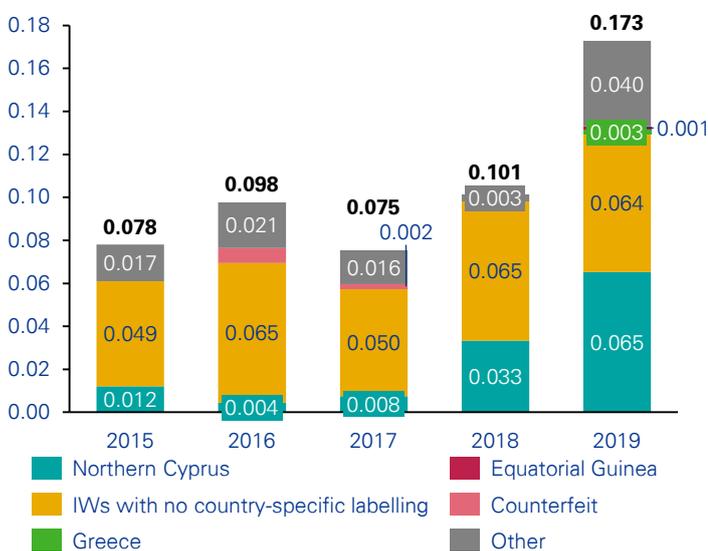


ND(L) by brand – 2015-2019 (bn cigarettes)

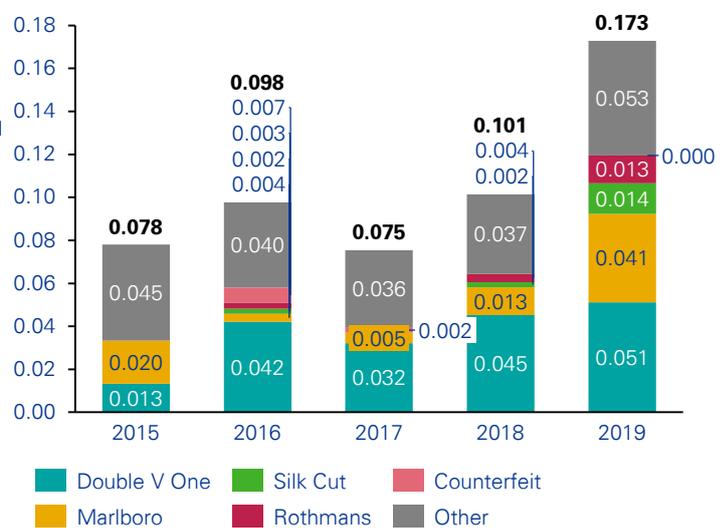


- C&C flows from Northern Cyprus increased in 2019
- The Illicit White Double V One remains the largest C&C brand flow

C&C by country of origin – 2015-2019 (bn cigarettes)



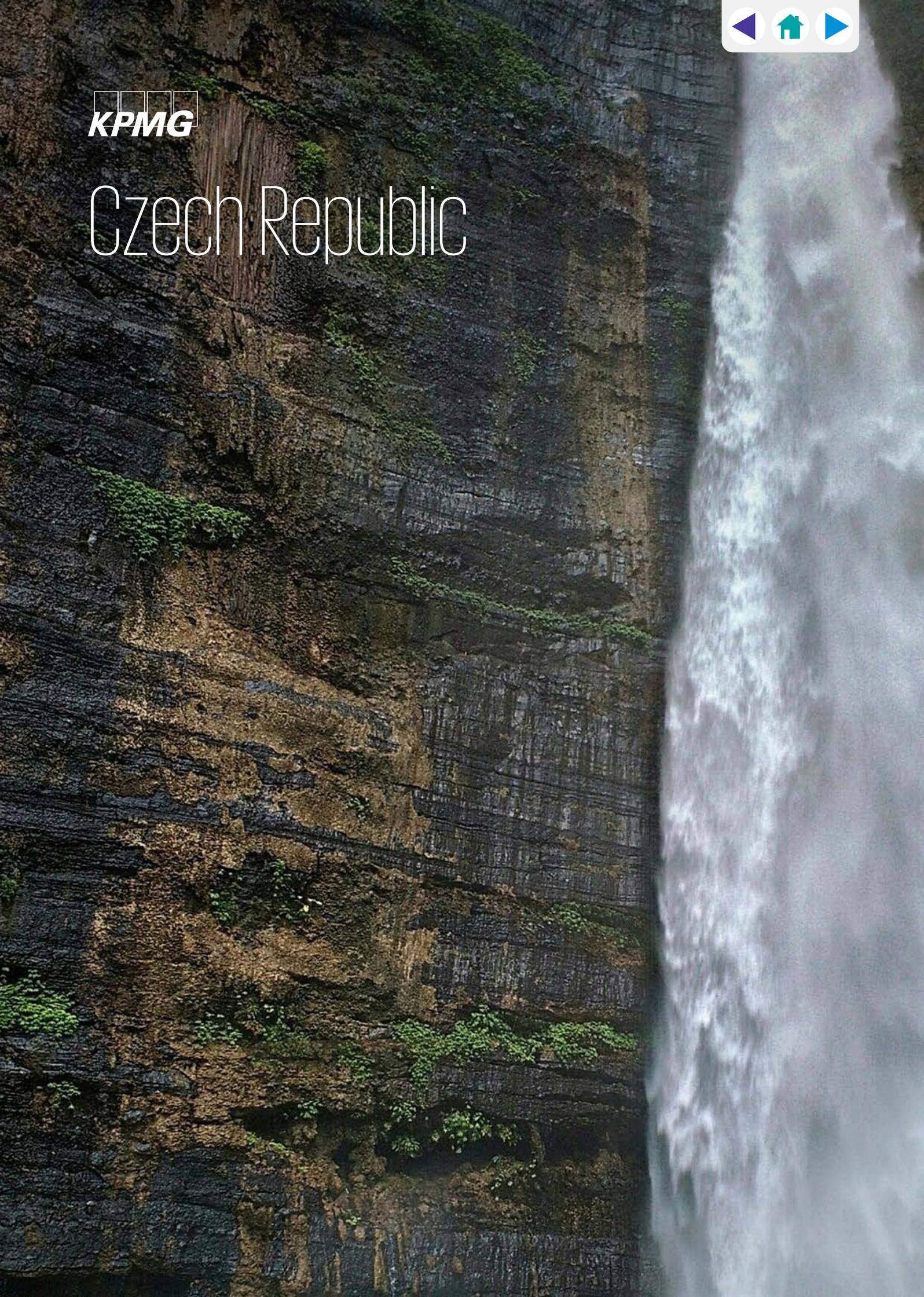
C&C by brand – 2015-2019 (bn cigarettes)



Source: (1) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section



Czech Republic



C&C cigarette consumption and total consumption

16.3bn

Cigarettes consumed



+0.52bn on 2018

0.8bn

C&C cigarettes consumed



-0.20bn on 2018

4.6%

Of total consumption was C&C



-1.42%pts on 2018

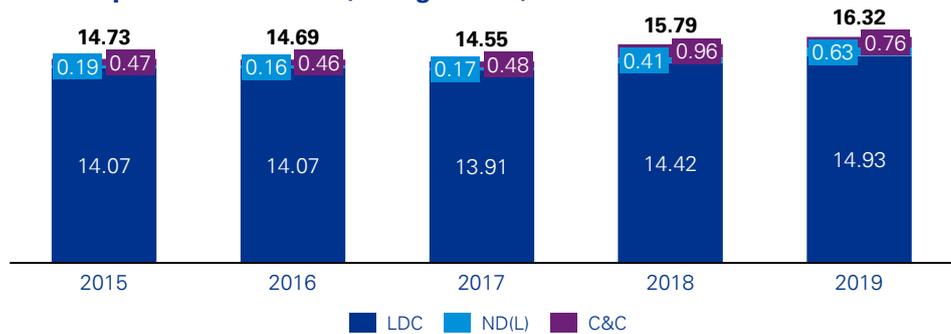
€101m

Total tax revenue lost from C&C



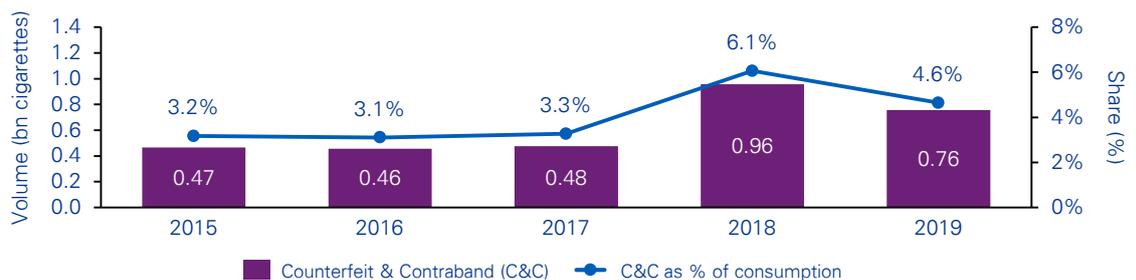
-€23m on 2018

Total consumption – 2015-2019 (bn cigarettes)

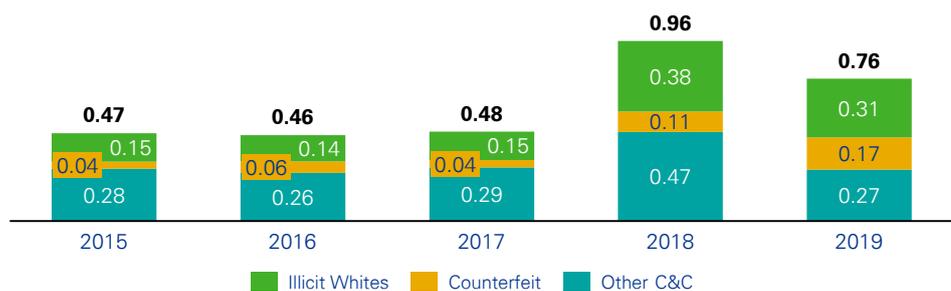


- C&C decreased to 4.6% of total cigarette consumption in 2019, falling from a high in 2018
- Total cigarette consumption increased by 3% in 2019, supported by continuing growth in overseas workers⁽¹⁾

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2015-2019



Breakdown of C&C consumption by type – 2015-2019 (bn cigarettes)



Note: C&C breakdown chart only includes counterfeit volumes related to brands of manufacturers who participate in the empty pack/yellow bag surveys. Total tax revenue lost represents estimated excise and VAT if C&C volumes had been consumed legally in the country of study

Source: (1) Czech Statistical Office, Employment of Foreigners in the CR by Status in Employment, 2004-2019; (2) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2015-2019

Total Czech Republic Consumption						
Billion cigarettes	2015	2016	2017	2018	2019	2018-19 (%)
Legal Domestic Sales (LDS)	20.13	20.50	20.10	20.01	19.74	(1%)
Outflows	(6.06)	(6.43)	(6.19)	(5.58)	(4.81)	(14%)
Legal Domestic Consumption (LDC)	14.07	14.07	13.91	14.42	14.93	4%
Non-Domestic Legal (ND(L))	0.19	0.16	0.17	0.41	0.63	53%
Counterfeit and Contraband (C&C)	0.47	0.46	0.48	0.96	0.76	(21%)
Total Non-Domestic	0.65	0.62	0.64	1.37	1.39	1%
Total Consumption	14.72	14.69	14.55	15.79	16.32	3%

- Poland and Ukraine continue to be major source markets, driven by proximity and overseas workers⁽¹⁾ respectively
- Flows of counterfeit cigarettes continued to grow in 2019
- The majority of Czech outflows are to neighbouring higher-priced Germany, with volumes declining in 2019

Total inflows by country of origin – 2015-2019

Inflows to Czech Republic					
Billion cigarettes	2015	2016	2017	2018	2019
Poland	0.03	0.03	0.04	0.08	0.20
IWs with no country-specific labelling	0.08	0.05	0.07	0.24	0.18
Counterfeit	0.04	0.06	0.04	0.11	0.17
Ukraine	0.08	0.15	0.15	0.23	0.17
Belarus	0.09	0.07	0.09	0.15	0.10
Other	0.33	0.25	0.25	0.57	0.57
Total Inflows	0.65	0.62	0.64	1.37	1.39

Total outflows by country of origin – 2015-2019

Outflows from Czech Republic					
Billion cigarettes	2015	2016	2017	2018	2019
Germany	(5.24)	(5.45)	(5.00)	(4.68)	(4.09)
Other	(0.82)	(0.98)	(1.18)	(0.90)	(0.72)
Total Outflows	(6.06)	(6.43)	(6.19)	(5.58)	(4.81)

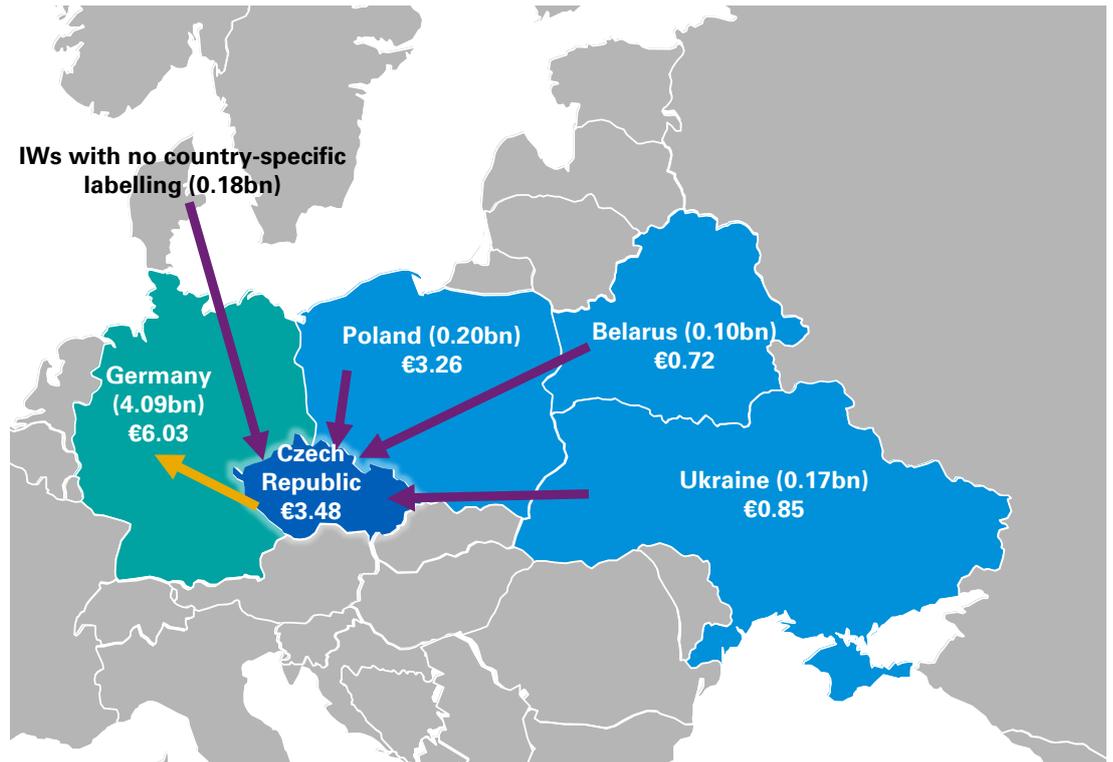
Note: The inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows

Source: (1) Employment of Foreigners in the CR by Status in Employment, Czech Statistical Office, 20014-2019; (2) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

Key flows and C&C consumption patterns

Key inflows and outflows

- Czech Republic
 - Source
 - Destination
 - Inflow
 - Outflow
- Label description:**
Country (Inflow/
Outflow Volume)
WAP



C&C consumption by region^(a)



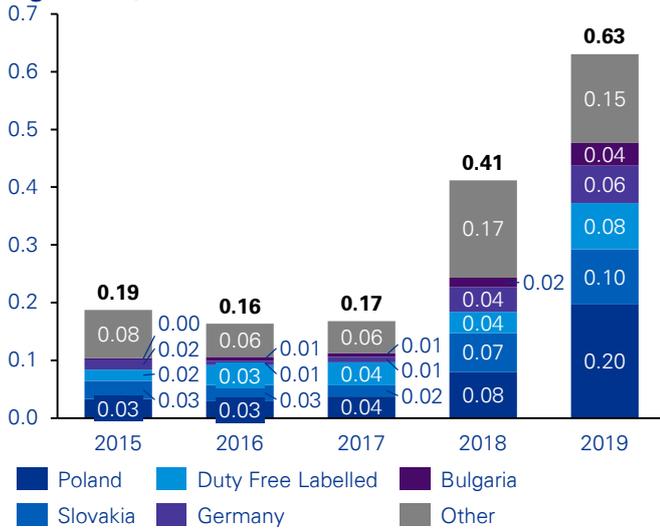
Low High

Note: (a) C&C scale is relative to this market and is not comparable with other markets in the study

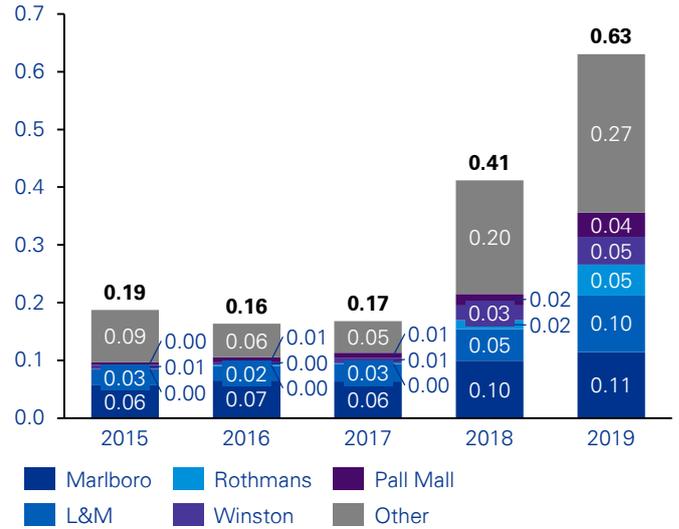
Source: (1) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

ND(L) and C&C flows

ND(L) by country of origin – 2015-2019 (bn cigarettes)



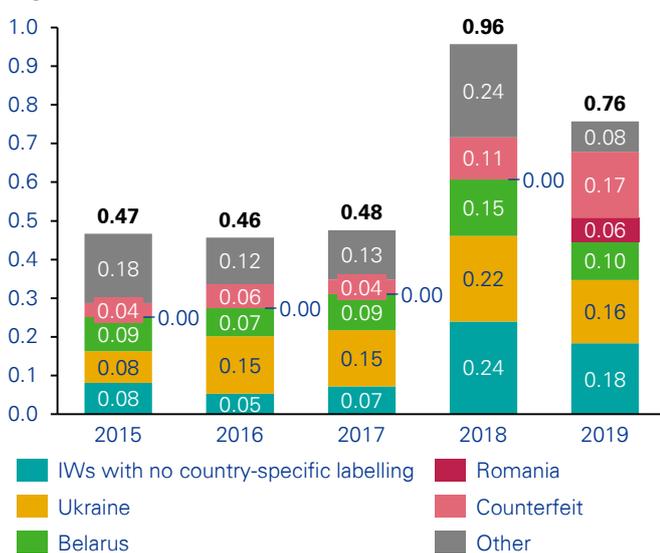
ND(L) by brand – 2015-2019 (bn cigarettes)



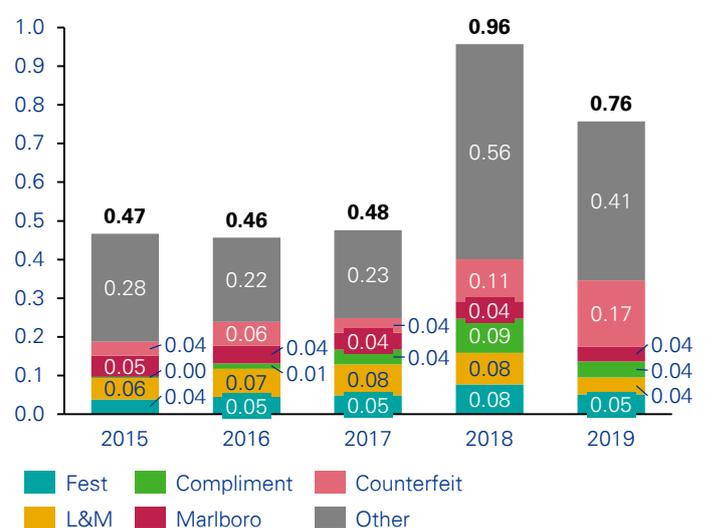
— Despite high traveller numbers to and from Ukraine, as the import limit is 40 cigarettes, the majority of this flow is considered C&C. Conversely, as travellers to and from Poland have an 800 cigarette limit this flow is considered largely legal

— The highest levels of C&C were found in the Moravskoslezsky Kraj and Karlovarsky Kraj regions

C&C by country of origin – 2015-2019 (bn cigarettes)



C&C by brand – 2015-2019 (bn cigarettes)

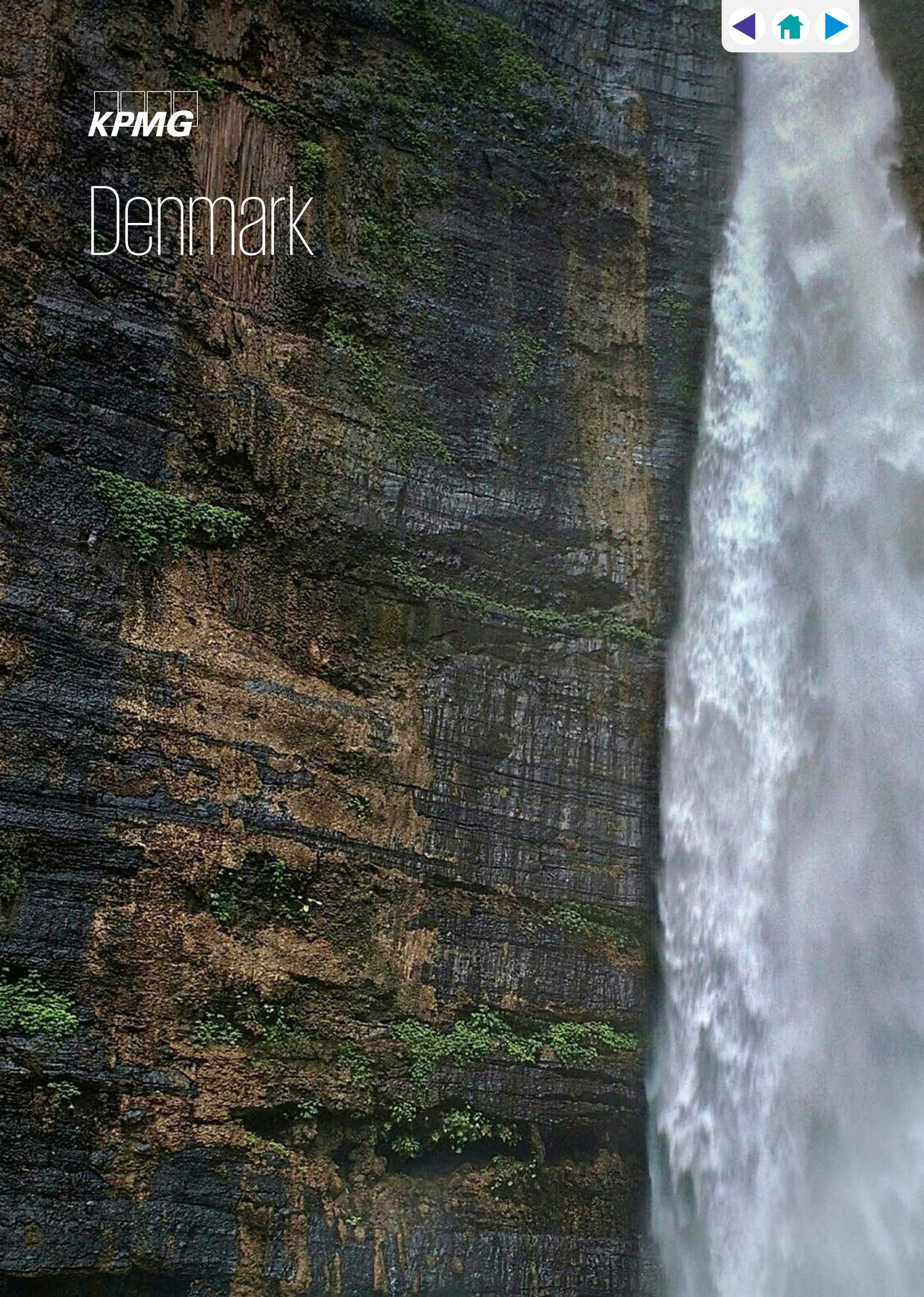


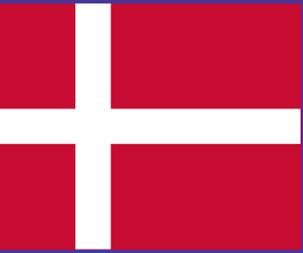
Source: (1) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section



KPMG

Denmark





C&C cigarette consumption and total consumption

6.2bn

Cigarettes consumed



+0.36bn on 2018

0.2bn

C&C cigarettes consumed



+0.07bn on 2018

3.9%

Of total consumption was C&C



+1.02%pts on 2018

€52m

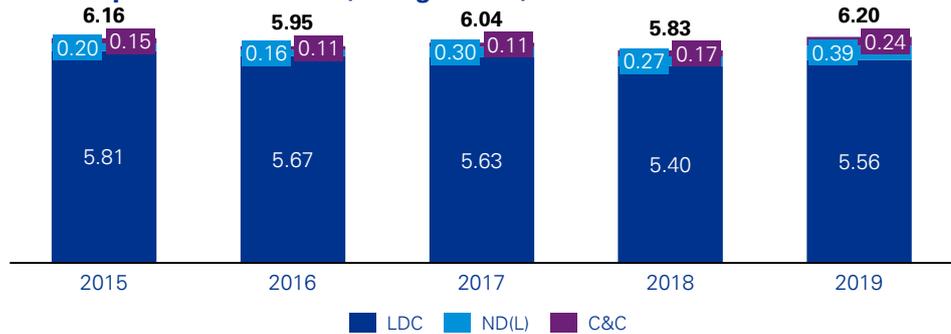
(DKK385m)⁽¹⁾

Total tax revenue lost from C&C



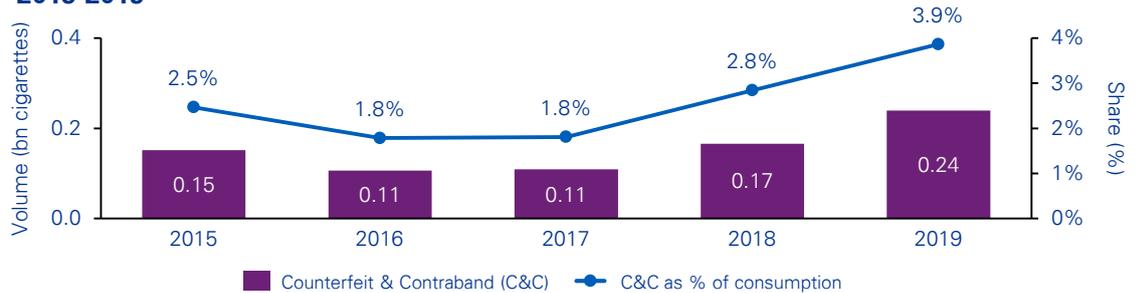
+€16m on 2018

Total consumption – 2015-2019 (bn cigarettes)

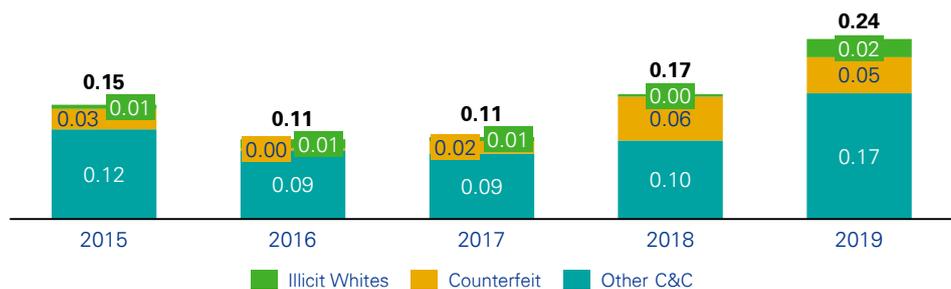


- C&C increased to 3.9% of total consumption in 2019
- Total cigarette consumption increased by 6%, driven by both rising legal domestic sales and non-domestic volumes

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2015-2019



Breakdown of C&C consumption by type – 2015-2019 (bn cigarettes)



Note: C&C breakdown chart only includes counterfeit volumes related to brands of manufacturers who participate in the empty pack/yellow bag surveys. Total tax revenue lost represents estimated excise and VAT if C&C volumes had been consumed legally in the country of study

Source: (1) EUR 1 = DKK 7.47, InforEuro, European Commission, December 2019; (2) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

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Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2015-2019

Total Denmark Consumption						
Billion cigarettes	2015	2016	2017	2018	2019	2018-19 (%)
Legal Domestic Sales (LDS)	5.98	5.78	5.74	5.51	5.68	3%
Outflows	(0.17)	(0.10)	(0.10)	(0.12)	(0.11)	(5%)
Legal Domestic Consumption (LDC)	5.81	5.67	5.63	5.40	5.56	3%
Non-Domestic Legal (ND(L))	0.20	0.16	0.30	0.27	0.39	45%
Counterfeit and Contraband (C&C)	0.15	0.11	0.11	0.17	0.24	44%
Total Non-Domestic	0.35	0.27	0.40	0.44	0.63	45%
Total Consumption	6.16	5.94	6.04	5.83	6.20	6%

- Duty Free Labelled and Sweden remained the largest source of inflows to Sweden, with both flows increasing in 2019
- Higher non-domestic legal volumes coincided with increasing tourism flows

Total inflows by country of origin – 2015-2019

Inflows to Denmark						
Billion cigarettes	2015	2016	2017	2018	2019	
Duty Free Labelled	0.13	0.10	0.11	0.13	0.16	
Sweden	0.05	0.04	0.07	0.03	0.08	
Counterfeit	0.03	0.00	0.02	0.06	0.05	
Germany	0.02	0.01	0.01	0.03	0.04	
Spain	0.00	0.01	0.01	0.01	0.03	
Other	0.12	0.11	0.19	0.17	0.27	
Total Inflows	0.35	0.27	0.40	0.44	0.63	

Total outflows by country of origin – 2015-2019

Outflows from Denmark						
Billion cigarettes	2015	2016	2017	2018	2019	
Germany	(0.02)	(0.01)	(0.01)	(0.01)	(0.02)	
Netherlands	(0.01)	(0.02)	(0.02)	(0.01)	(0.02)	
Ireland	(0.00)	(0.01)	(0.01)	(0.00)	(0.02)	
Sweden	(0.06)	(0.01)	(0.02)	(0.02)	(0.02)	
Poland	(0.00)	(0.01)	(0.01)	(0.01)	(0.01)	
Other	(0.07)	(0.04)	(0.04)	(0.07)	(0.02)	
Total Outflows	(0.17)	(0.10)	(0.10)	(0.12)	(0.11)	

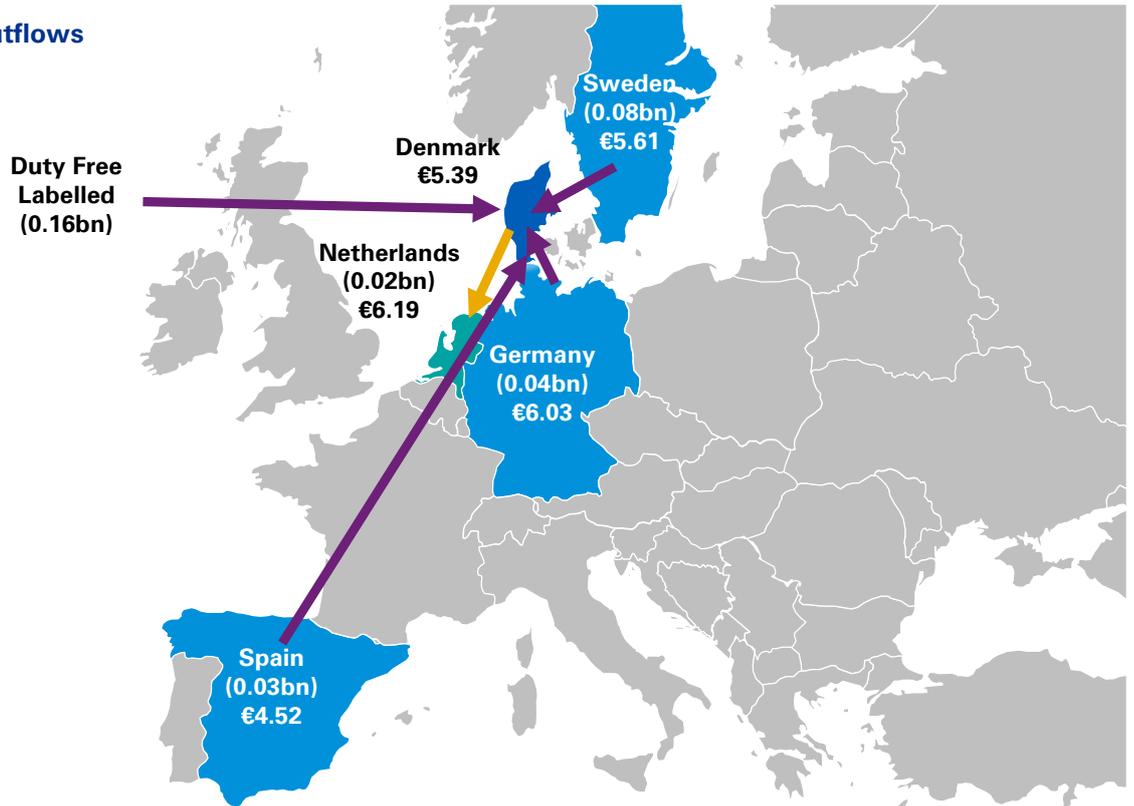
Note: The inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows
Source: KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

Key flows and C&C consumption patterns

Key inflows and outflows

- Denmark
- Source
- Destination
- Inflow
- Outflow

Label description:
Country (Inflow/
Outflow Volume)
WAP



C&C consumption by region^(a)

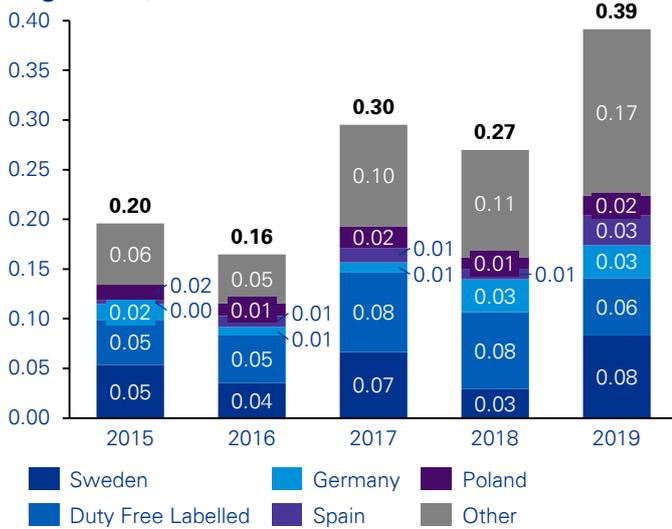


Note: (a) C&C scale is relative to this market and is not comparable with other markets in the study

Source: (1) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

ND(L) and C&C flows

ND(L) by country of origin – 2015-2019 (bn cigarettes)



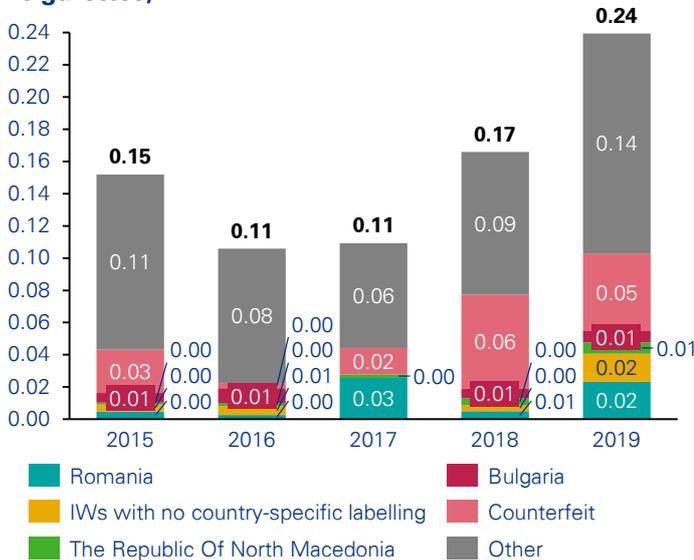
ND(L) by brand – 2015-2019 (bn cigarettes)



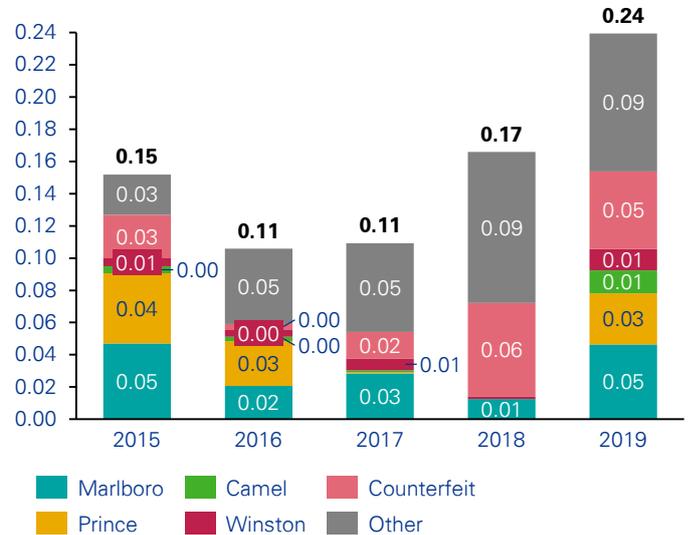
— Increasing non-domestic legal is driven by increased Sweden flows

— Increasing C&C flows were driven by increased inflows from a number of source markets

C&C by country of origin – 2015-2019 (bn cigarettes)



C&C by brand – 2015-2019 (bn cigarettes)

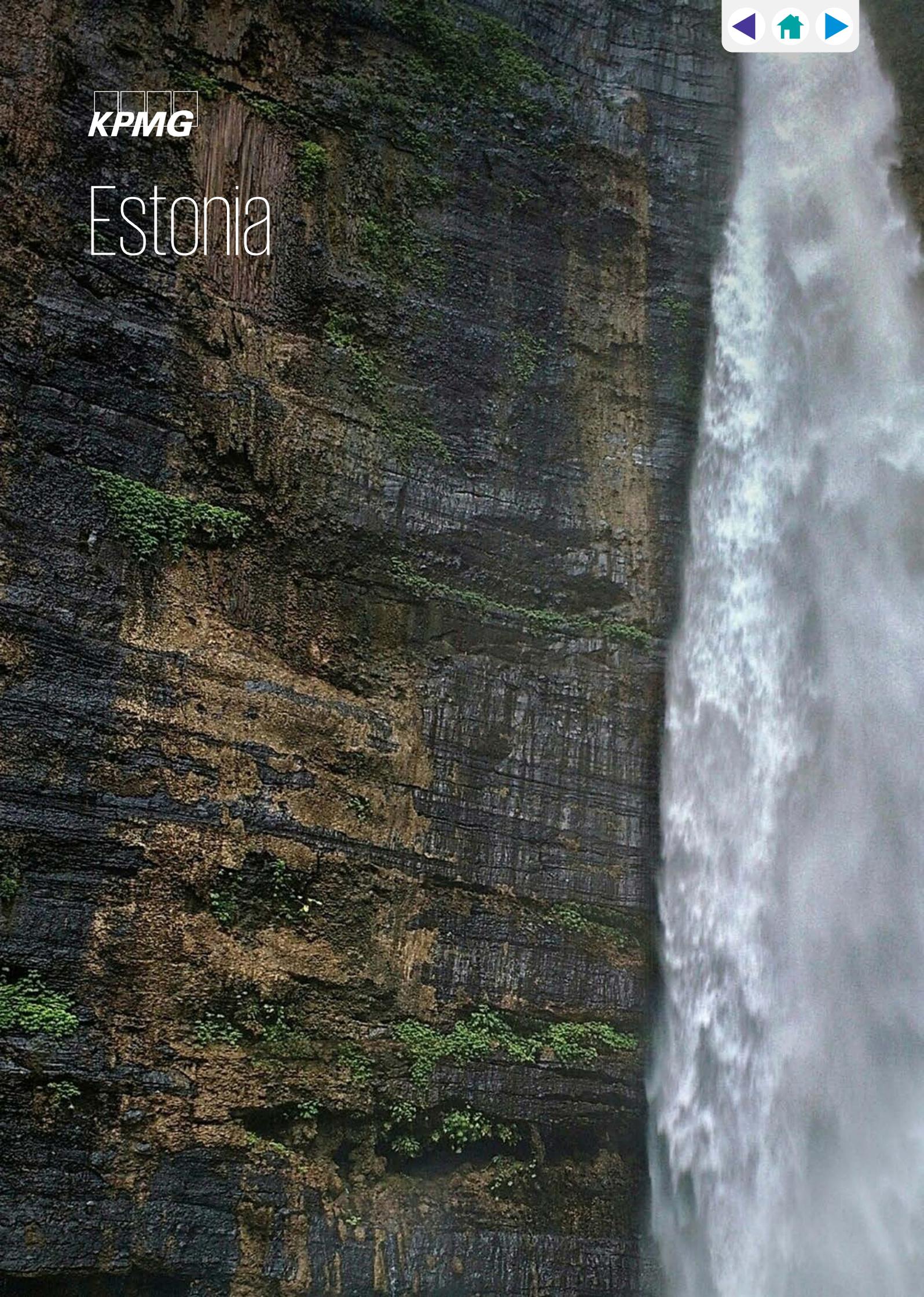


Source: (1) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section



KPMG

Estonia



C&C cigarette consumption and total consumption

1.5bn

Cigarettes consumed



+0.02bn on 2018

0.1bn

C&C cigarettes consumed



-0.03bn on 2018

7.4%

Of total consumption was C&C



-2.09%pts on 2018

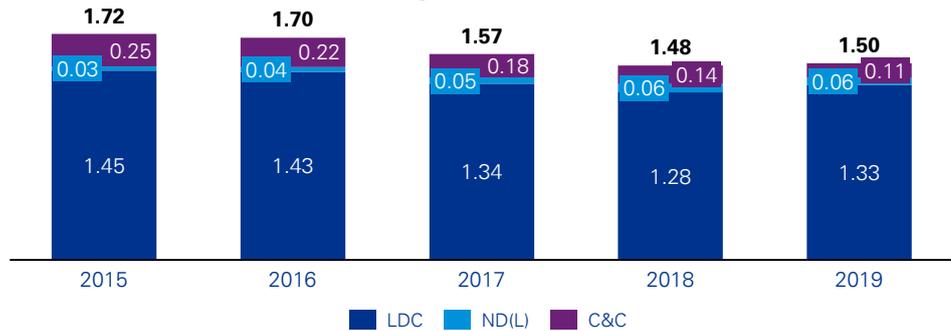
€18m

Total tax revenue lost from C&C



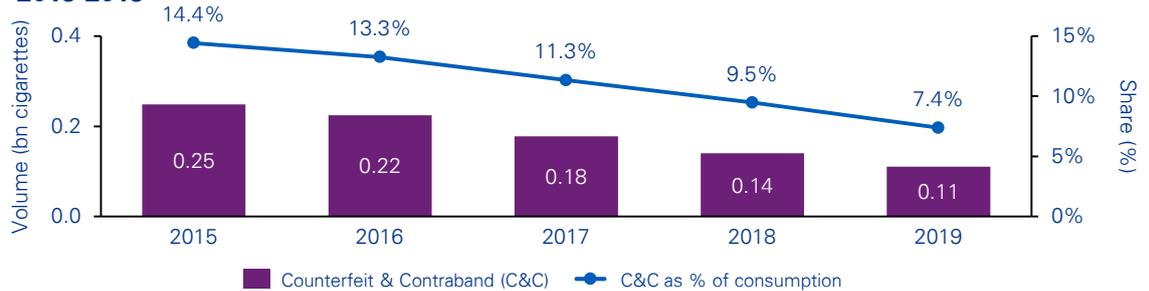
-€4m on 2018

Total consumption – 2015-2019 (bn cigarettes)

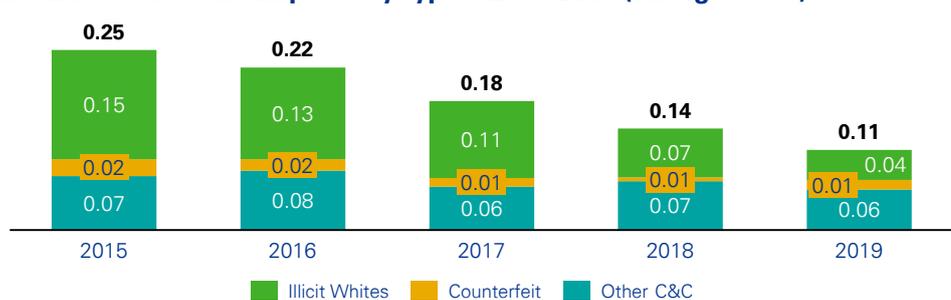


- C&C declined to 7.4% of total cigarette consumption in 2019, the lowest proportion in the reporting period and continuing the declining trend observed in recent years
- Total cigarette consumption remained broadly in line with 2018

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2015-2019



Breakdown of C&C consumption by type – 2015-2019 (bn cigarettes)



Note: C&C breakdown chart only includes counterfeit volumes related to brands of manufacturers who participate in the empty pack/yellow bag surveys. Total tax revenue lost represents estimated excise and VAT if C&C volumes had been consumed legally in the country of study

Source: KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2015-2019

Total Estonia Consumption						
Billion cigarettes	2015	2016	2017	2018	2019	2018-19 (%)
Legal Domestic Sales (LDS)	1.80	1.74	1.65	1.54	1.56	1%
Outflows	(0.35)	(0.31)	(0.30)	(0.26)	(0.23)	(13%)
Legal Domestic Consumption (LDC)	1.45	1.43	1.34	1.28	1.33	4%
Non-Domestic Legal (ND(L))	0.03	0.04	0.05	0.06	0.06	(12%)
Counterfeit and Contraband (C&C)	0.25	0.22	0.18	0.14	0.11	(21%)
Total Non-Domestic	0.28	0.26	0.23	0.20	0.17	(18%)
Total Consumption	1.72	1.69	1.57	1.48	1.50	1%

- Russia, Duty Free Labelled and Belarus continue to be the largest sources of non-domestic inflows in Estonia
- Higher-priced Finland remains the principal destination for Estonian outflows

Total inflows by country of origin – 2015-2019

Inflows to Estonia						
Billion cigarettes	2015	2016	2017	2018	2019	
Russia	0.12	0.07	0.07	0.05	0.05	
Duty Free Labelled	0.02	0.03	0.02	0.02	0.03	
Belarus	0.09	0.10	0.07	0.05	0.03	
Counterfeit	0.02	0.02	0.01	0.01	0.01	
Finland	0.01	0.00	0.00	0.01	0.01	
Other	0.01	0.04	0.05	0.06	0.03	
Total Inflows	0.28	0.26	0.23	0.20	0.17	

Total outflows by country of origin – 2015-2019

Outflows from Estonia						
Billion cigarettes	2015	2016	2017	2018	2019	
Finland	(0.29)	(0.27)	(0.27)	(0.23)	(0.19)	
Other	(0.06)	(0.04)	(0.03)	(0.03)	(0.03)	
Total Outflows	(0.35)	(0.31)	(0.30)	(0.26)	(0.23)	

Note: The inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows
 Source: KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

Key flows and C&C consumption patterns

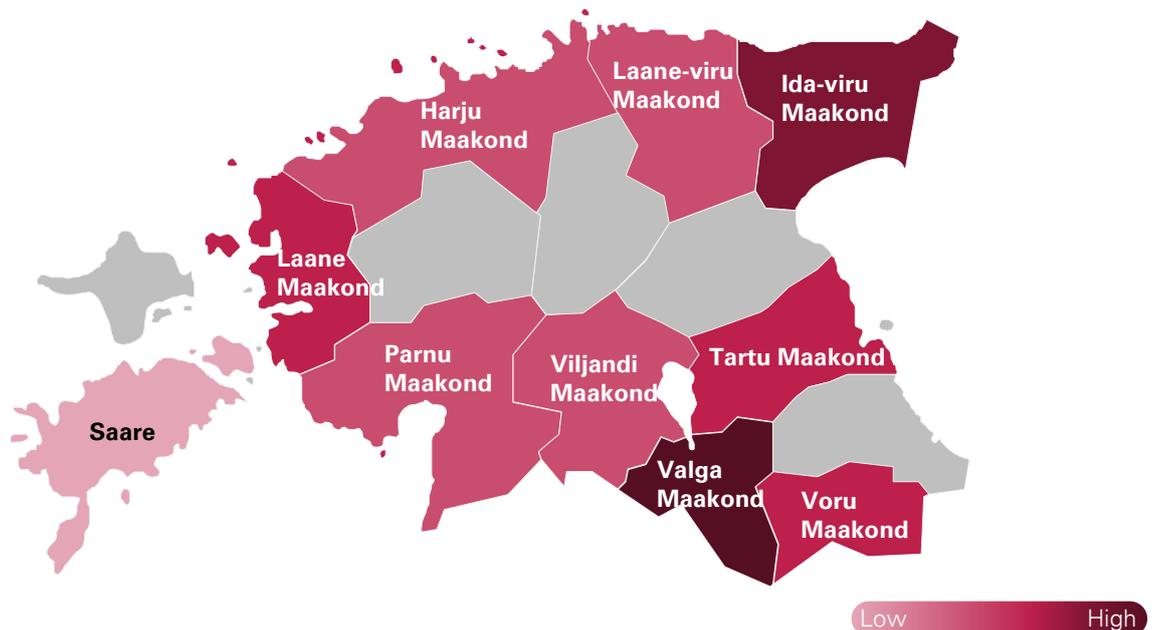
Key inflows and outflows

- Estonia
- Source
- Destination
- Inflow
- Outflow

Label description:
Country (Inflow/
Outflow Volume)
WAP



C&C consumption by region^(a)

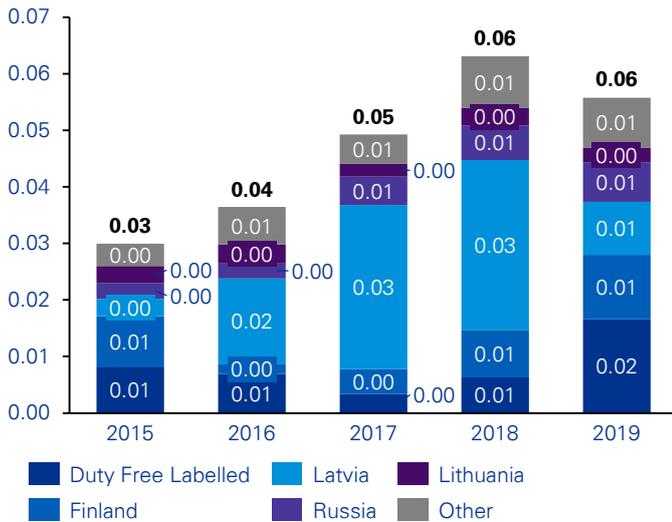


Note: (a) C&C scale is relative to this market and is not comparable with other markets in the study

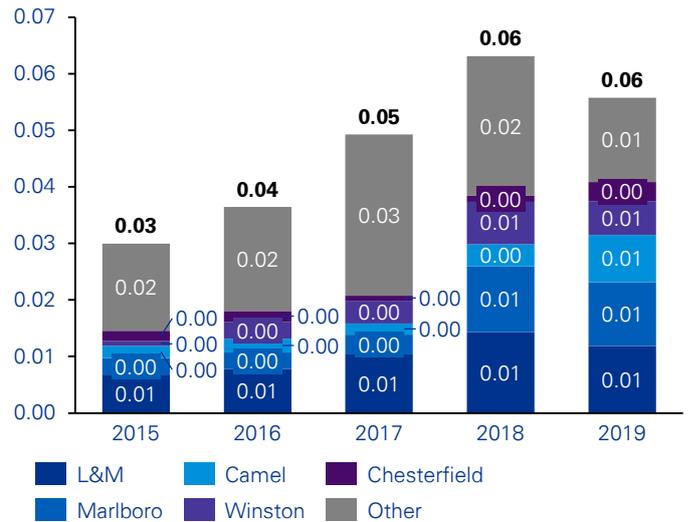
Source: (1) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

ND(L) and C&C flows

ND(L) by country of origin – 2015-2019 (bn cigarettes)

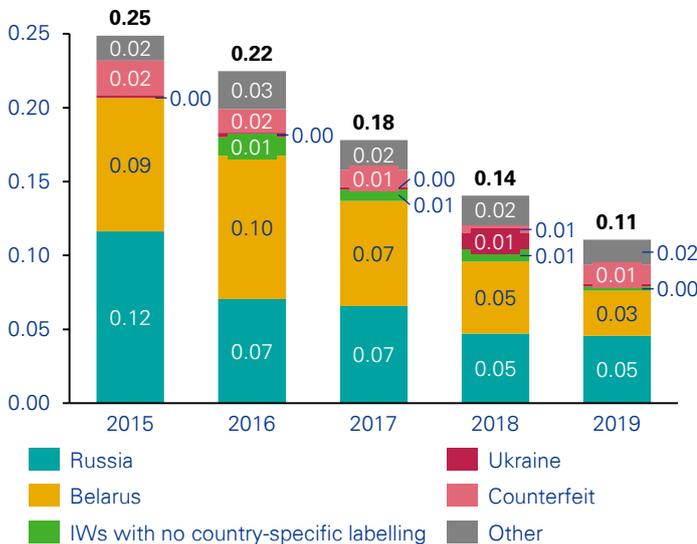


ND(L) by brand – 2015-2019 (bn cigarettes)

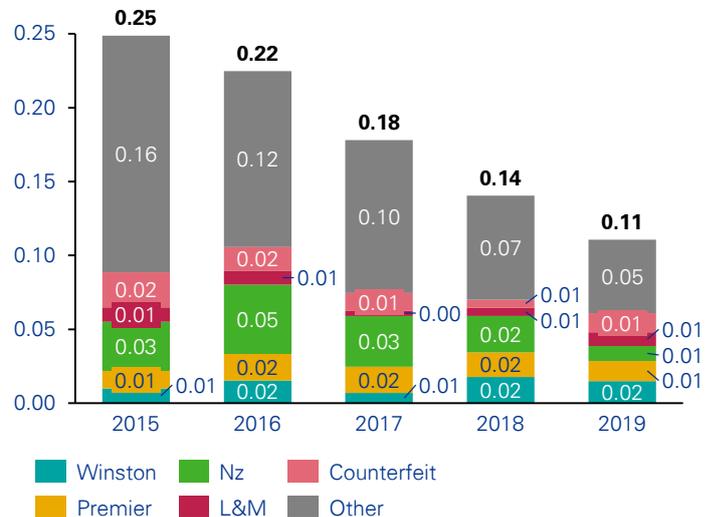


- Illicit flows principally originate from Belarus and neighbouring Russia, where Belarusian cigarettes can be legally imported as long as they are not sold
- C&C was highest in the Valga Maakond region in the South of the country, indicating illicit cigarettes may be entering Estonia from within the EU in addition to via the Russian border

C&C by country of origin – 2015-2019 (bn cigarettes)



C&C by brand – 2015-2019 (bn cigarettes)



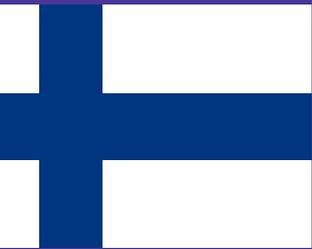
Source: (1) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section



KPMG

Finland





C&C cigarette consumption and total consumption

4.1bn

Cigarettes consumed



-0.27bn on 2018

0.3bn

C&C cigarettes consumed



-0.09bn on 2018

8.3%

Of total consumption was C&C



-1.45%pts on 2018

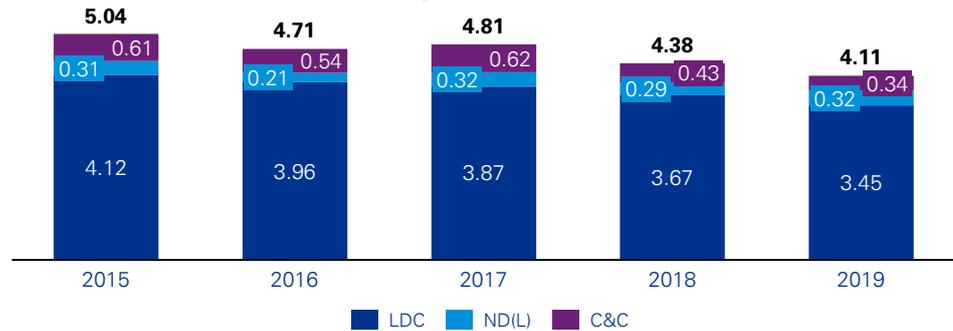
€102m

Total tax revenue lost from C&C



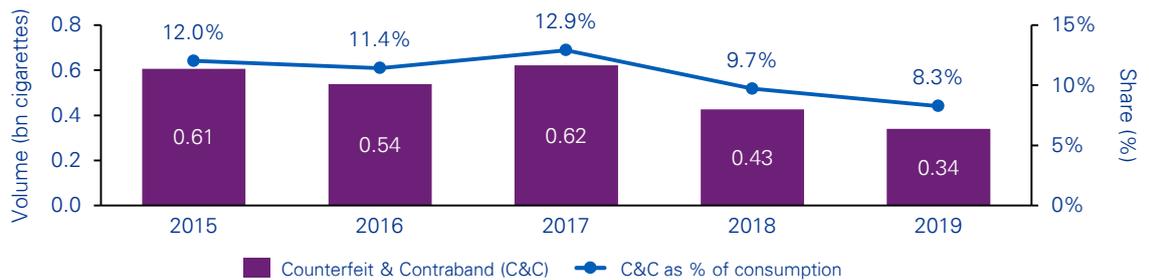
-€24m on 2018

Total consumption – 2015-2019 (bn cigarettes)

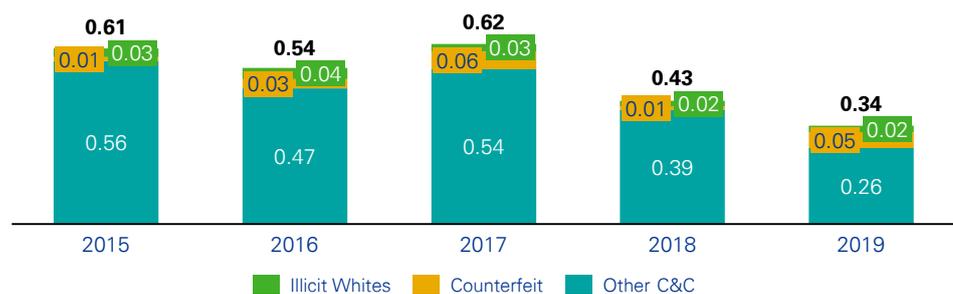


- C&C declined to 8.3% of total cigarette consumption in 2019
- Total consumption declined by 6% reflecting a decrease in both domestic consumption and non-domestic flows

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2015-2019



Breakdown of C&C consumption by type – 2015-2019 (bn cigarettes)



Note: C&C breakdown chart only includes counterfeit volumes related to brands of manufacturers who participate in the empty pack/yellow bag surveys. Total tax revenue lost represents estimated excise and VAT if C&C volumes had been consumed legally in the country of study

Source: KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2015-2019

Total Finland Consumption						
Billion cigarettes	2015	2016	2017	2018	2019	2018-19 (%)
Legal Domestic Sales (LDS)	4.20	4.00	3.91	3.72	3.48	(7%)
Outflows	(0.07)	(0.04)	(0.05)	(0.05)	(0.03)	(38%)
Legal Domestic Consumption (LDC)	4.12	3.96	3.87	3.67	3.45	(6%)
Non-Domestic Legal (ND(L))	0.31	0.21	0.32	0.29	0.32	13%
Counterfeit and Contraband (C&C)	0.61	0.54	0.62	0.43	0.34	(20%)
Total Non-Domestic	0.92	0.75	0.94	0.71	0.66	(7%)
Total Consumption	5.04	4.71	4.81	4.38	4.11	(6%)

- Duty Free Labelled and Estonia, where there was a price difference of over €3 per packet of 20 cigarettes, are the main sources of Finnish non-domestic consumption
- Flows from Russia declined by 50% in 2019
- Counterfeit flows increased in 2019, returning to levels similar to that measured in 2017

Total inflows by country of origin – 2015-2019

Inflows to Finland					
Billion cigarettes	2015	2016	2017	2018	2019
Duty Free Labelled	0.25	0.22	0.25	0.21	0.21
Estonia	0.29	0.27	0.27	0.23	0.19
Russia	0.19	0.11	0.14	0.12	0.06
Counterfeit	0.01	0.03	0.06	0.01	0.05
Latvia	0.01	0.00	0.02	0.02	0.02
Other	0.16	0.11	0.20	0.12	0.13
Total Inflows	0.92	0.75	0.94	0.71	0.66

Total outflows by country of origin – 2015-2019

Outflows from Finland					
Billion cigarettes	2015	2016	2017	2018	2019
Estonia	(0.01)	(0.00)	(0.00)	(0.01)	(0.01)
Sweden	(0.01)	(0.02)	(0.02)	(0.02)	(0.00)
Other	(0.05)	(0.02)	(0.02)	(0.02)	(0.02)
Total Outflows	(0.07)	(0.04)	(0.05)	(0.05)	(0.03)

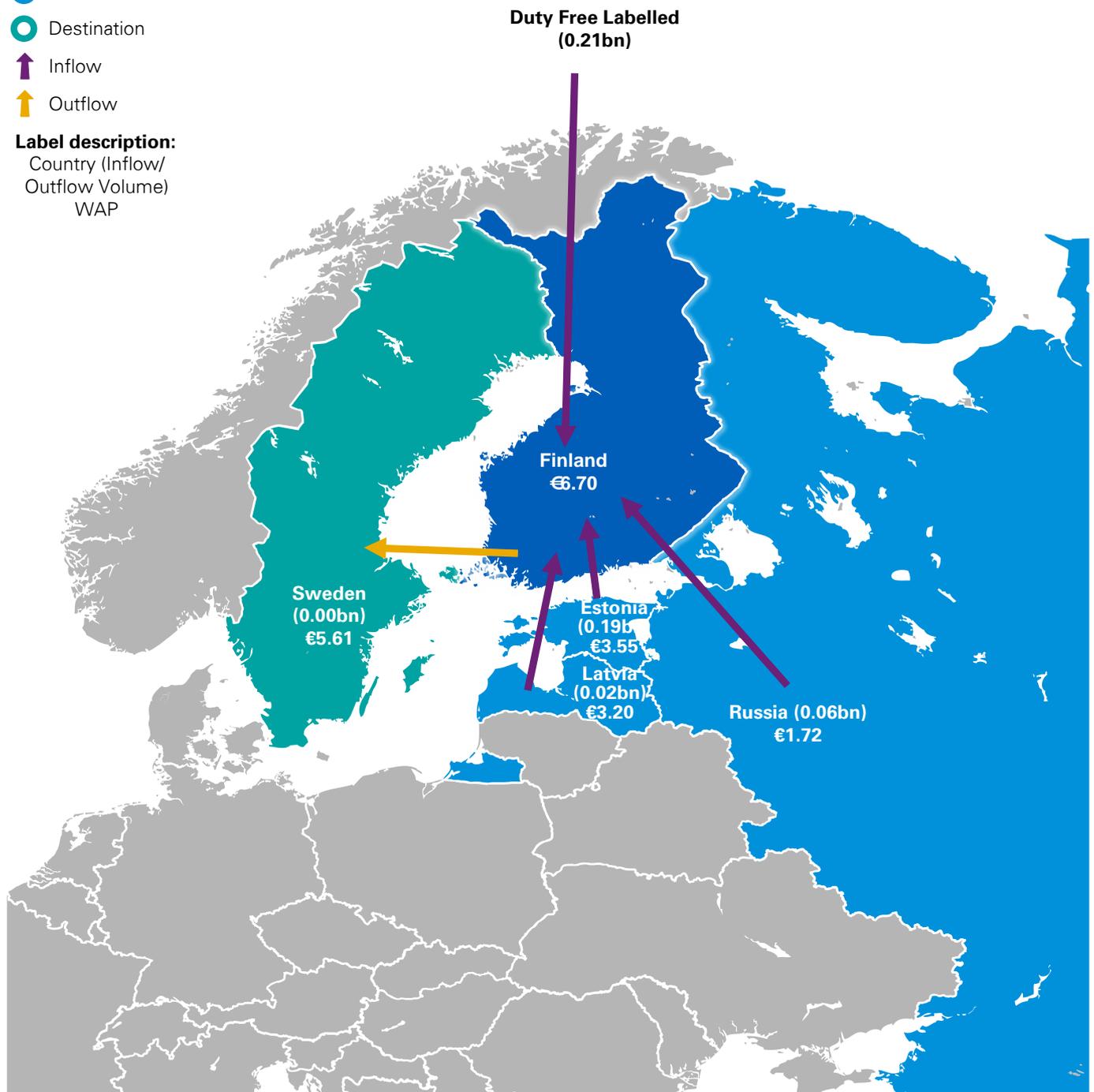
Note: The inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows
 Source: KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

Key flows and C&C consumption patterns

Key inflows and outflows

- Finland
- Source
- Destination
- ↑ Inflow
- ↑ Outflow

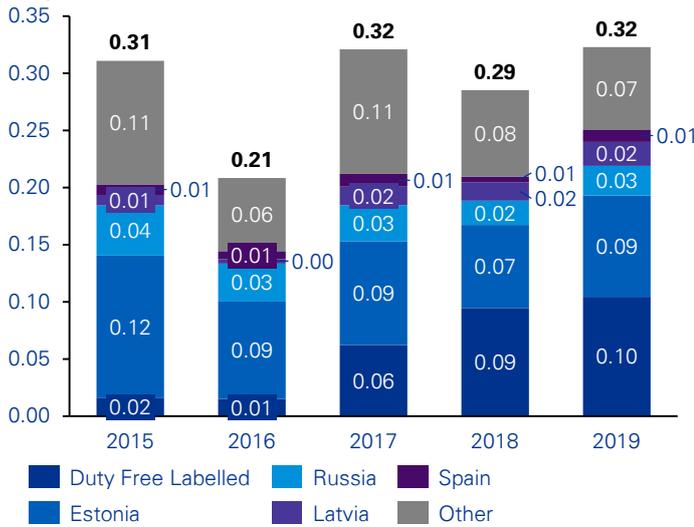
Label description:
Country (Inflow/
Outflow Volume)
WAP



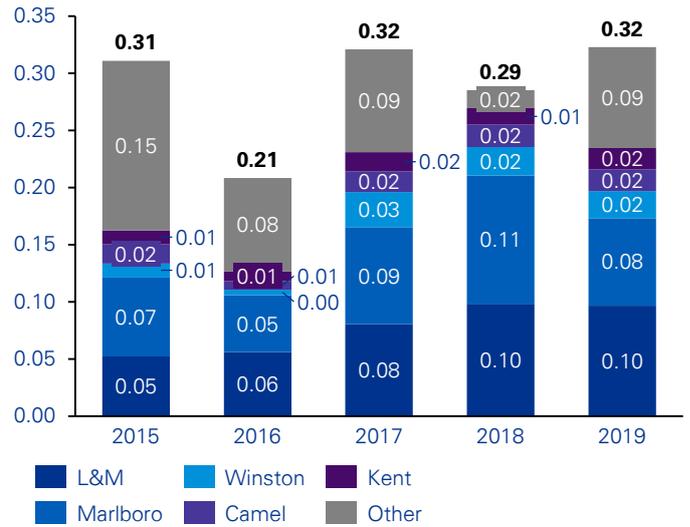
Source: (1) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

ND(L) and C&C flows

ND(L) by country of origin – 2015-2019 (bn cigarettes)

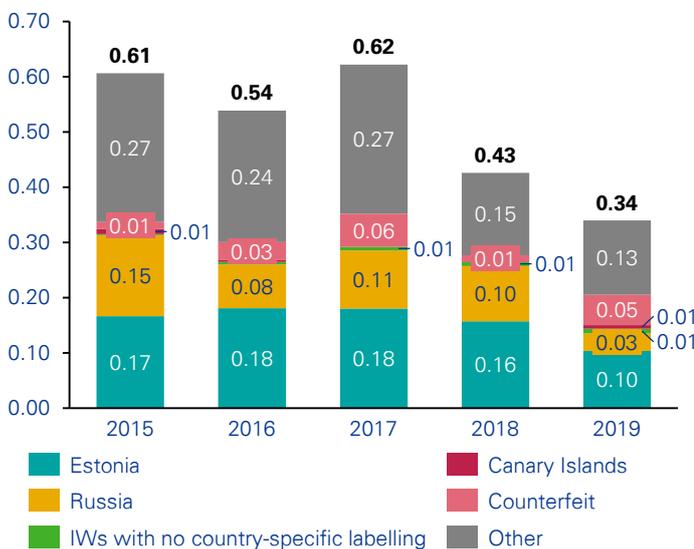


ND(L) by brand – 2015-2019 (bn cigarettes)

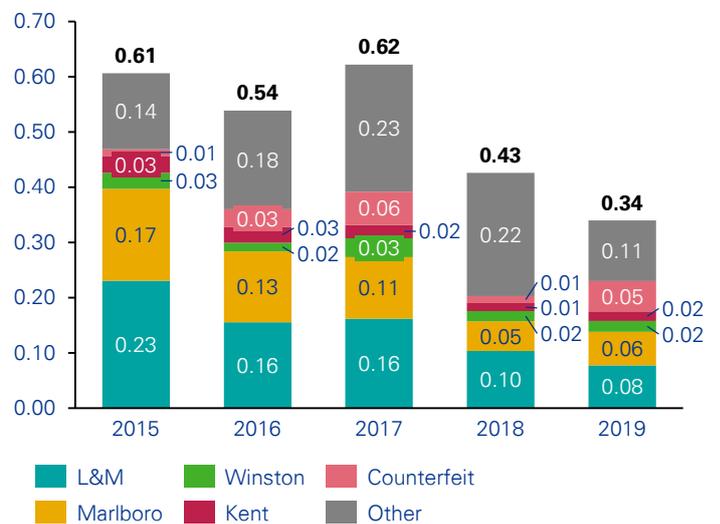


— Despite travellers to and from Estonia being able to take 800 cigarettes when crossing the border, traveller volumes only support a proportion of this inflow as legal

C&C by country of origin – 2015-2019 (bn cigarettes)



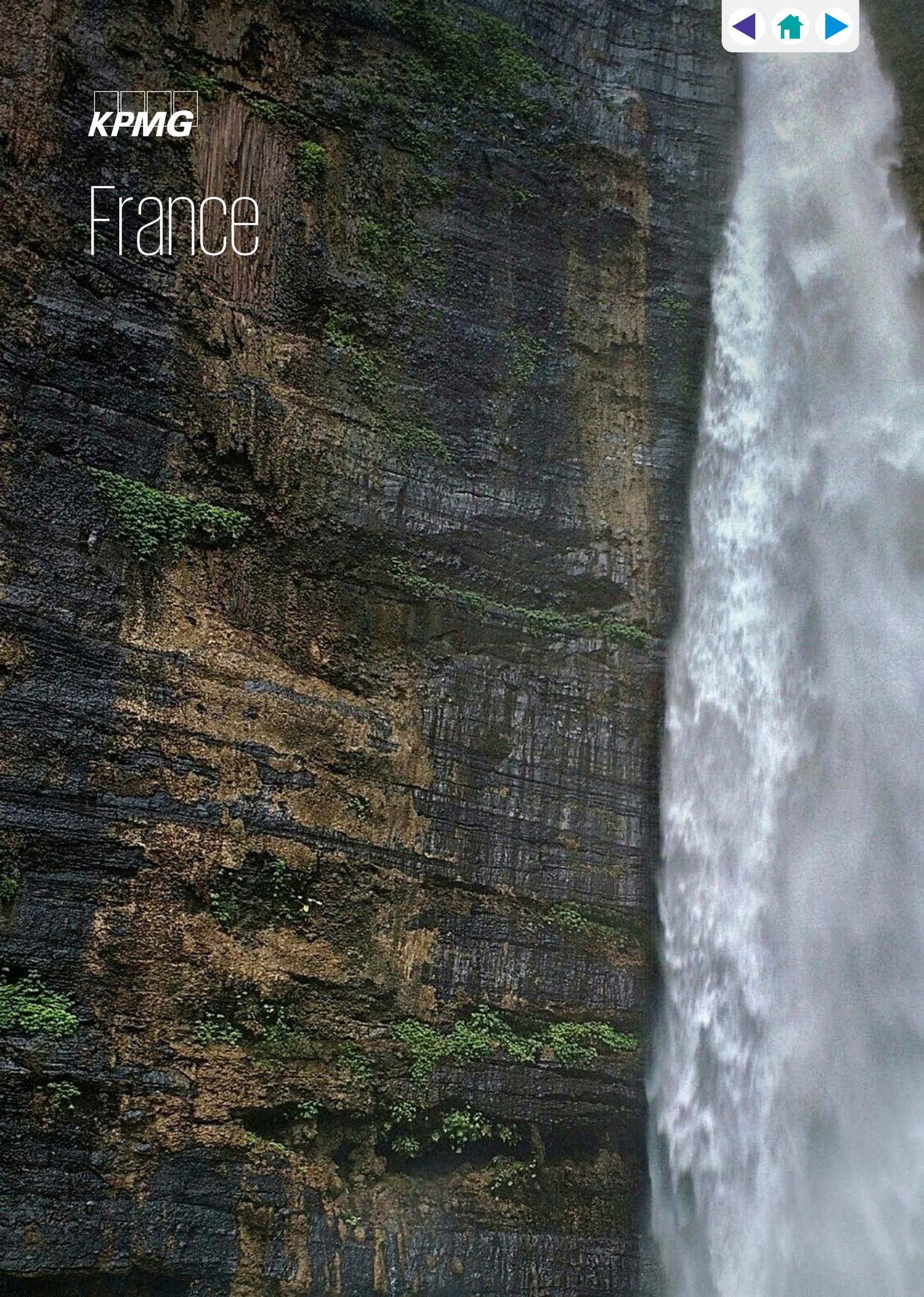
C&C by brand – 2015-2019 (bn cigarettes)



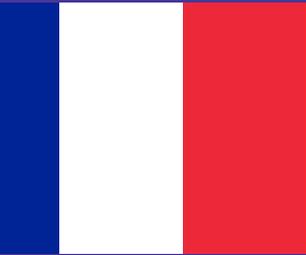
Source: (1) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

KPMG

France



C&C cigarette consumption and total consumption



52.2bn

Cigarettes consumed



-3.35bn on 2018

7.2bn

C&C cigarettes consumed



-0.68bn on 2018

13.7%

Of total consumption was C&C



-0.40%pts on 2018

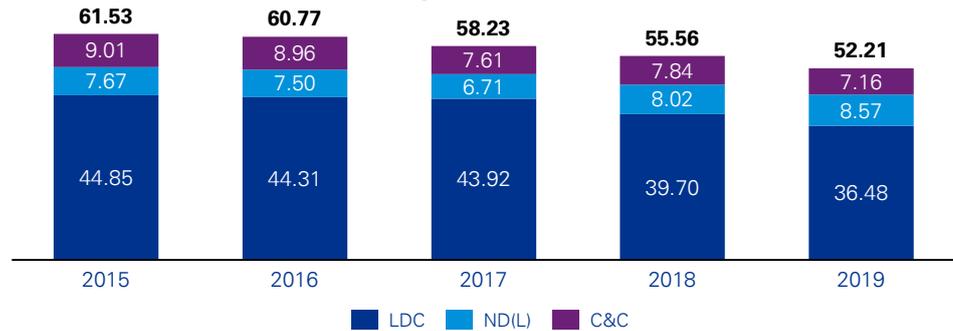
€2,579m

Total tax revenue lost from C&C



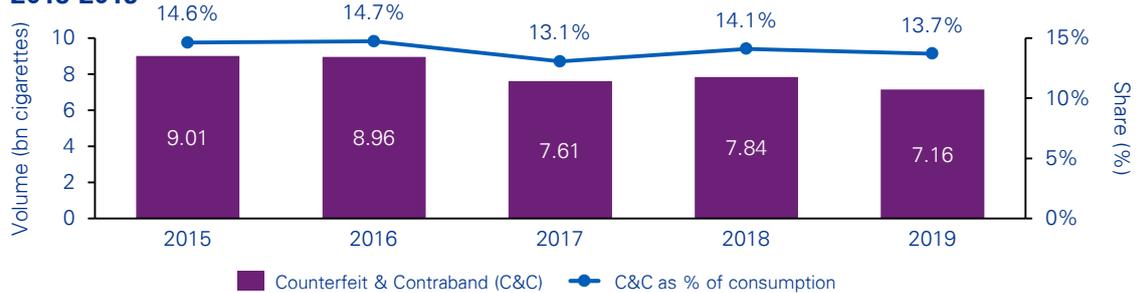
-€15m on 2018

Total consumption – 2015-2019 (bn cigarettes)

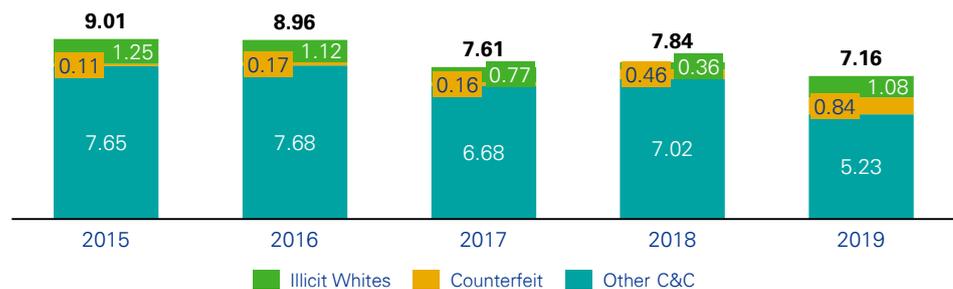


- C&C decreased by 0.7bn cigarettes to 13.7% of total cigarette consumption in 2019, a 0.4ppt decline
- Illicit White and Counterfeit flows increased in 2019, by 202% and 82% respectively, whilst other C&C decreased by 25%
- Forensic analysis⁽¹⁾ of counterfeit packs from seizures and empty pack surveys highlights:
 - counterfeits were predominantly made within the EU, and
 - empty pack survey results do not include all counterfeit variants identified in seizures, suggesting counterfeit volumes could be even higher than indicated in this report

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2015-2019



Breakdown of C&C consumption by type – 2015-2019 (bn cigarettes)



Note: C&C breakdown chart only includes counterfeit volumes related to the brands of manufacturers participating in the empty pack/ yellow bag surveys. Total tax revenue lost represents estimated excise and VAT if C&C volumes had been consumed legally in the country of study

Source: (1) Forensic analysis data provided by PMI; (2) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

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Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2015-2019

Total France Consumption						
Billion cigarettes	2015	2016	2017	2018	2019	2018-19 (%)
Legal Domestic Sales (LDS)	45.46	44.93	44.37	40.23	37.21	(8%)
Outflows	(0.60)	(0.61)	(0.45)	(0.53)	(0.73)	37%
Legal Domestic Consumption (LDC)	44.85	44.31	43.92	39.70	36.48	(8%)
Non-Domestic Legal (ND(L))	7.67	7.50	6.71	8.02	8.57	7%
Counterfeit and Contraband (C&C)	9.01	8.96	7.61	7.84	7.16	(9%)
Total Non-Domestic	16.68	16.46	14.31	15.86	15.73	(1%)
Total Consumption	61.53	60.77	58.23	55.56	52.21	(6%)

- Although non-domestic inflows remained stable in volume terms, it forms a larger share of total consumption, increasing from 28.5% in 2018 to 30.1% in 2019. The trend of consumption switching from domestic to non-domestic legal cigarettes continued
- Following two price increases in 2019, the weighted average price in France increased by €0.81 (10.5%) to €8.57, widening the price gap with neighbouring markets
- Non-domestic inflows from the surrounding lower-priced markets of Spain, Belgium and Luxembourg continued to increase. Given the high volume of travellers and the opportunity for border shopping, a large proportion of these inflows are considered legal
- Algerian inflows continued their declining trend in 2019. Although there are significant annual traveller volumes to Algeria, and a 200 cigarette limit for travellers, this does not support the volumes observed in the empty pack surveys and as such the majority of this inflow is considered C&C
- Outflows to Switzerland increased in 2019 against increasing numbers of cross-border workers and travellers⁽¹⁾

Total inflows by country of origin – 2015-2019

Inflows to France					
Billion cigarettes	2015	2016	2017	2018	2019
Spain	2.70	2.63	2.84	3.61	4.08
Algeria	3.22	3.19	2.44	2.02	1.98
Belgium	1.69	1.47	1.28	1.42	1.89
Luxembourg	0.93	0.84	1.09	1.15	1.26
Duty Free Labelled	1.99	2.01	1.44	1.33	1.15
Other	6.15	6.32	5.22	6.33	5.35
Total Inflows	16.68	16.46	14.31	15.86	15.73

Total outflows by country of origin – 2015-2019

Outflows from France					
Billion cigarettes	2015	2016	2017	2018	2019
Switzerland	(0.09)	(0.28)	(0.07)	(0.07)	(0.29)
Belgium	(0.10)	(0.03)	(0.03)	(0.06)	(0.13)
Germany	(0.06)	(0.03)	(0.06)	(0.06)	(0.08)
Netherlands	(0.10)	(0.08)	(0.15)	(0.10)	(0.08)
UK	(0.04)	(0.03)	(0.03)	(0.09)	(0.03)
Other	(0.21)	(0.16)	(0.11)	(0.16)	(0.12)
Total Outflows	(0.60)	(0.61)	(0.45)	(0.53)	(0.73)

Note: The inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows

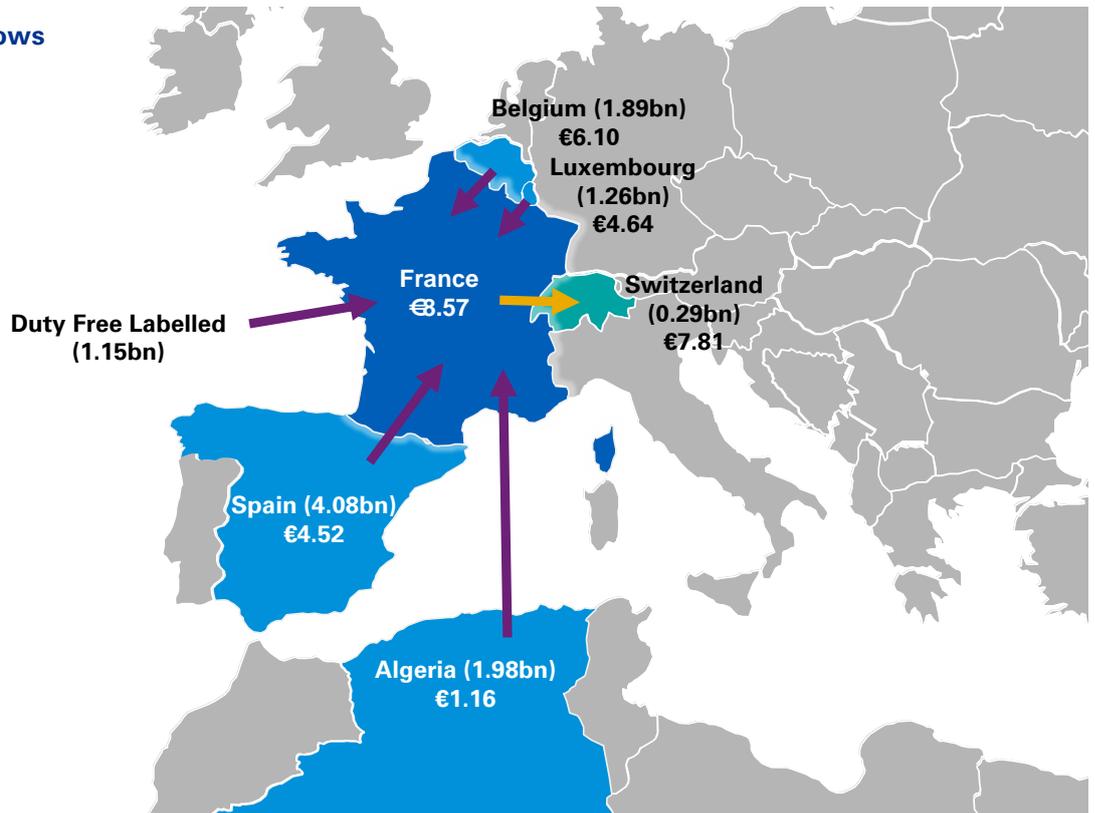
Source: (1) "Switzerland sees record number of cross-border workers", swissinfo.ch, 13 November 2019; (2) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

Key flows and C&C consumption patterns

Key inflows and outflows

- France
- Source
- Destination
- Inflow
- Outflow

Label description:
Country (Inflow/
Outflow Volume)
WAP



C&C consumption by region^(a)

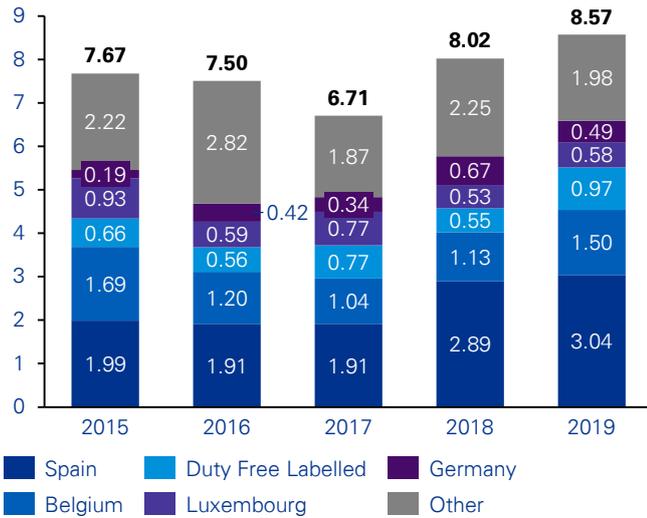


Note: (a) C&C scale is relative to this market and is not comparable with other markets in the study

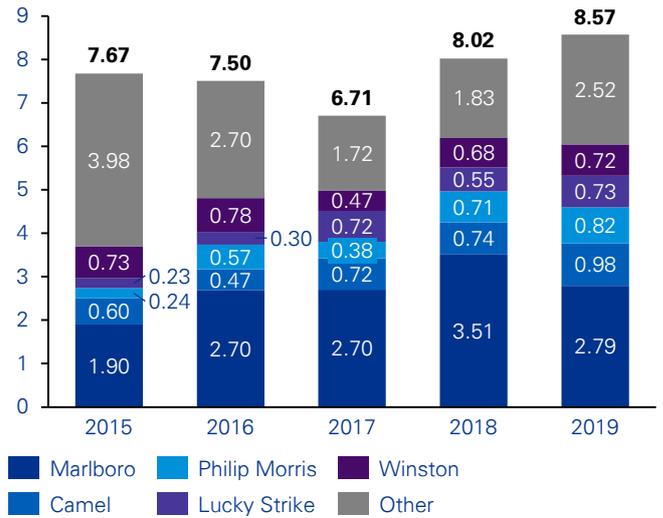
Source: (1) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

ND(L) and C&C flows

ND(L) by country of origin – 2015-2019 (bn cigarettes)

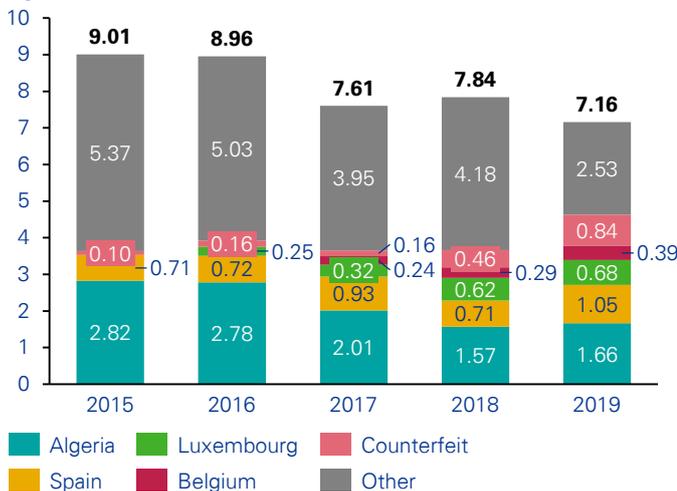


ND(L) by brand – 2015-2019 (bn cigarettes)

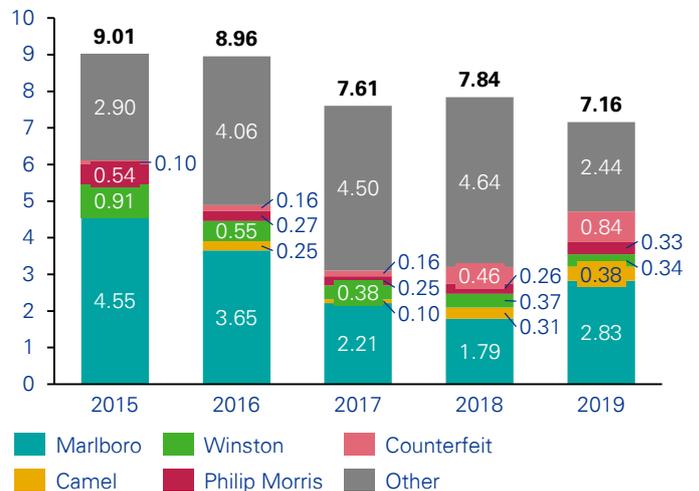


- Increasing non-domestic legal flows were driven by neighbouring Spain, Belgium and Luxembourg, indicating consumers are increasingly purchasing from nearby lower-priced markets
- Counterfeit volumes increased to a historically high level in 2019
- Illicit Whites are comprised of a large number of small brands included within 'Other' C&C
- Seizure data of attempts to import more than the 800 cigarette limit when travelling from Spain and Belgium indicate some border shoppers may purchase more than the legal limit⁽¹⁾. However, we do not have enough evidence to understand the scale of this, as such C&C from Spain and Belgium in this report could be understated
- The highest regional C&C as a percentage of consumption was in Ile De France, with high levels of Algerian C&C and counterfeit

C&C by country of origin – 2015-2019 (bn cigarettes)



C&C by brand – 2015-2019 (bn cigarettes)

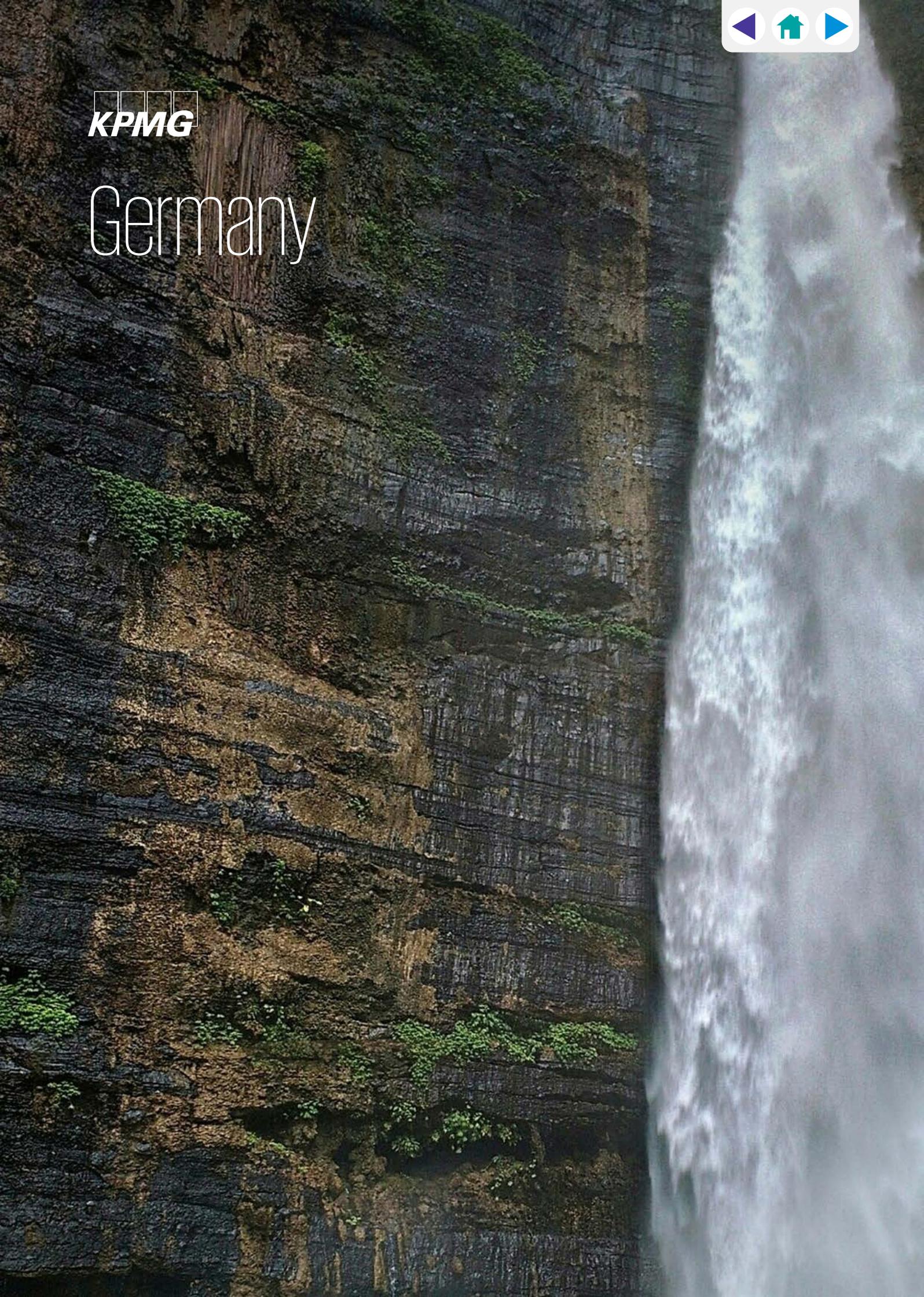


Source: (1) Customs seizure data: <http://www.lemondedutabac.com/?s=bilan+des+principales+saisies++2019&searchsubmit>; (2) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section



KPMG

Germany





C&C cigarette consumption and total consumption

85.3bn

Cigarettes consumed



-2.08bn on 2018

3.5bn

C&C cigarettes consumed



+0.69bn on 2018

4.1%

Of total consumption was C&C



+0.88%pts on 2018

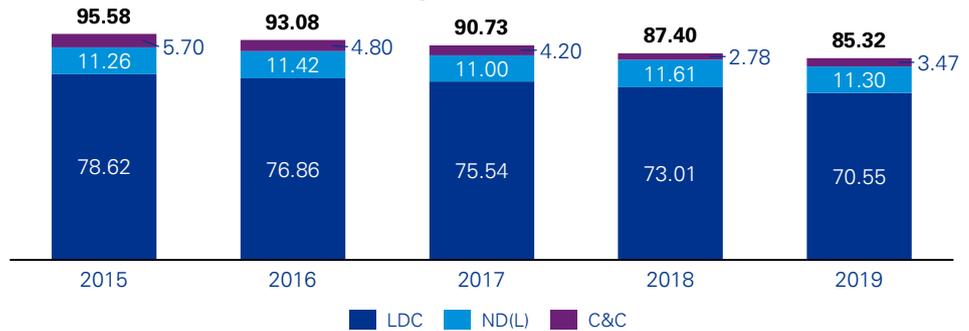
€758m

Total tax revenue lost from C&C



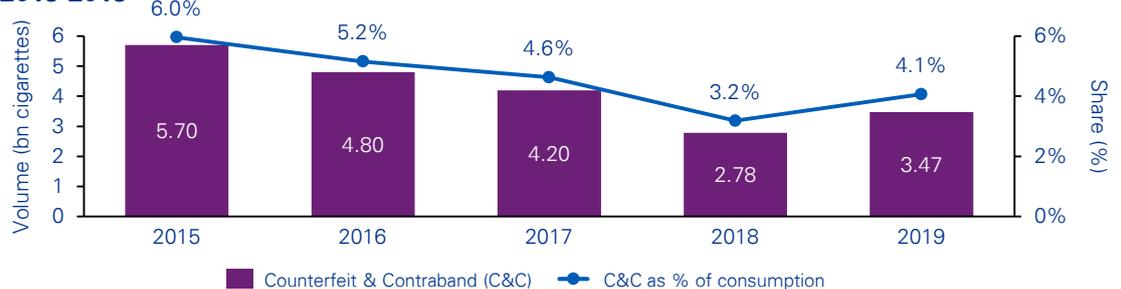
+€171m on 2018

Total consumption – 2015-2019 (bn cigarettes)

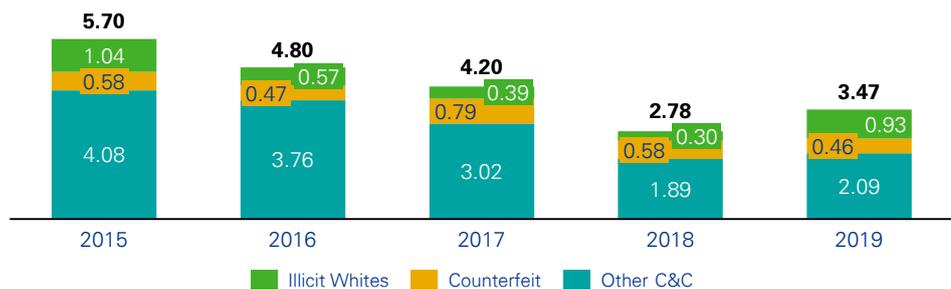


- C&C was 4.1% of total cigarette consumption in 2019, an increase of 0.9 percentage points on the historic low recorded in 2018, albeit still lower than levels recorded in 2015 to 2017
- Total consumption continued its long term declining trend, reducing by 2% in 2019

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2015-2019



Breakdown of C&C consumption by type – 2015-2019 (bn cigarettes)



Note: C&C breakdown chart only includes counterfeit volumes related to brands of manufacturers who participate in the empty pack/yellow bag surveys. Total tax revenue lost represents estimated excise and VAT if C&C volumes had been consumed legally in the country of study

Source: KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2015-2019

Total Germany Consumption						
Billion cigarettes	2015	2016	2017	2018	2019	2018-19 (%)
Legal Domestic Sales (LDS)	80.04	78.13	76.74	74.76	72.35	(3%)
Outflows	(1.42)	(1.27)	(1.20)	(1.75)	(1.80)	3%
Legal Domestic Consumption (LDC)	78.62	76.86	75.54	73.01	70.55	(3%)
Non-Domestic Legal (ND(L))	11.26	11.42	11.00	11.61	11.30	(3%)
Counterfeit and Contraband (C&C)	5.70	4.80	4.20	2.78	3.47	25%
Total Non-Domestic	16.96	16.22	15.19	14.39	14.77	3%
Total Consumption	95.58	93.08	90.73	87.40	85.32	(2%)

- The main sources of inflows into Germany were neighbouring countries in the East, with Poland overtaking Czech Republic as the largest inflow country in 2019
- Inflow from Poland increased to 4.9bn. As travel volumes remained largely stable year on year, this indicates an increase in C&C in 2019
- Inflows from Czech Republic continued the declining trend evident since 2016, with the majority of the flow considered legal given the high volume of travellers

Total inflows by country of origin – 2015-2019

Inflows to Germany					
Billion cigarettes	2015	2016	2017	2018	2019
Poland	4.79	4.57	4.46	4.20	4.94
Czech Republic	5.24	5.45	5.00	4.68	4.09
Duty Free Labelled	1.81	1.71	1.22	1.29	1.44
Counterfeit	0.58	0.47	0.79	0.58	0.46
Luxembourg	0.31	0.48	0.34	0.33	0.35
Other	4.23	3.55	3.39	3.30	3.50
Total Inflows	16.96	16.22	15.19	14.39	14.77

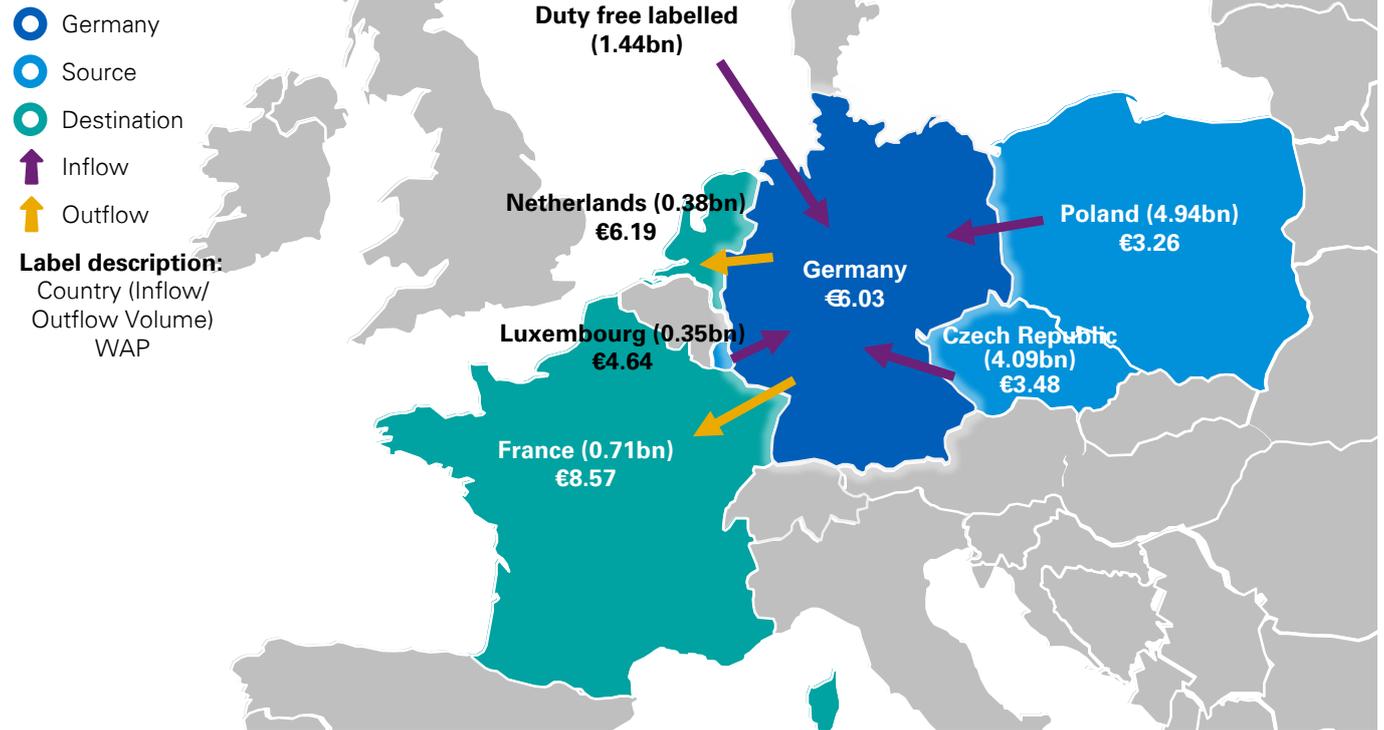
Total outflows by country of origin – 2015-2019

Outflows from Germany					
Billion cigarettes	2015	2016	2017	2018	2019
France	(0.45)	(0.45)	(0.34)	(0.67)	(0.71)
Netherlands	(0.27)	(0.20)	(0.26)	(0.35)	(0.38)
Switzerland	(0.26)	(0.22)	(0.21)	(0.19)	(0.21)
Austria	(0.06)	(0.06)	(0.05)	(0.07)	(0.08)
Ireland	(0.03)	(0.04)	(0.06)	(0.01)	(0.08)
Other	(0.36)	(0.30)	(0.28)	(0.46)	(0.34)
Total Outflows	(1.42)	(1.27)	(1.20)	(1.75)	(1.80)

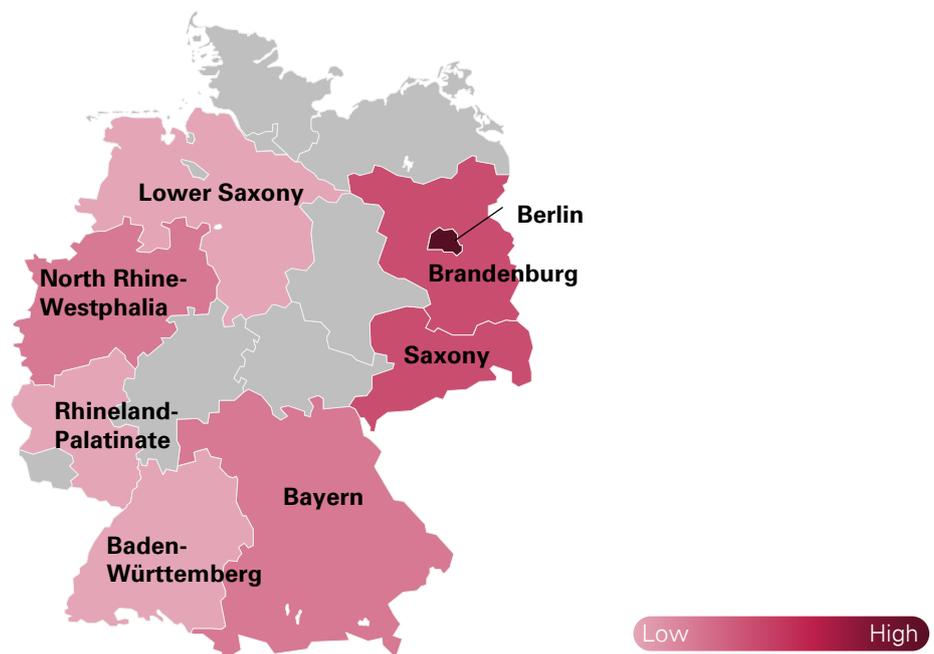
Note: The inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows
Source: KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

Key flows and C&C consumption patterns

Key inflows and outflows



C&C consumption by region^(a)

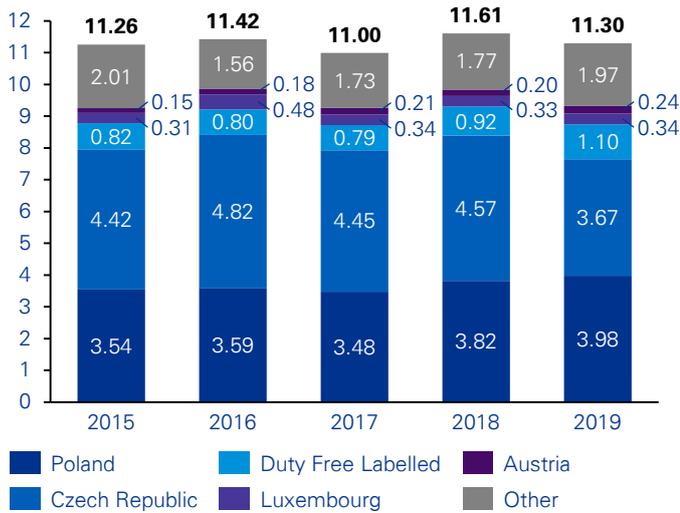


Note: (a) C&C scale is relative to this market and is not comparable with other markets in the study

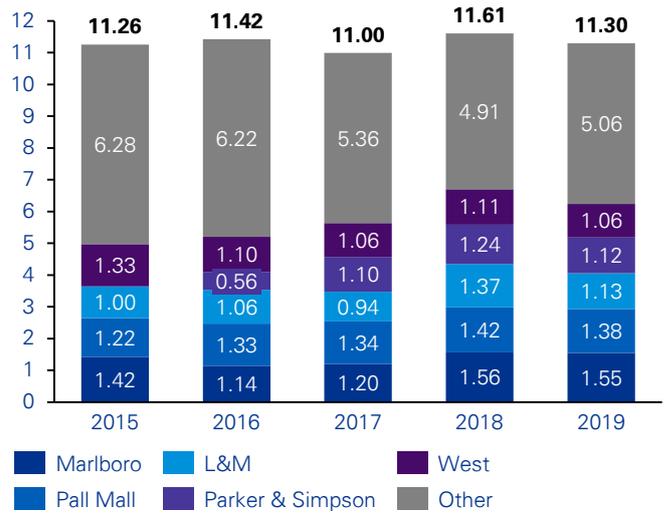
Source: (1) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

ND(L) and C&C flows

ND(L) by country of origin – 2015-2019 (bn cigarettes)

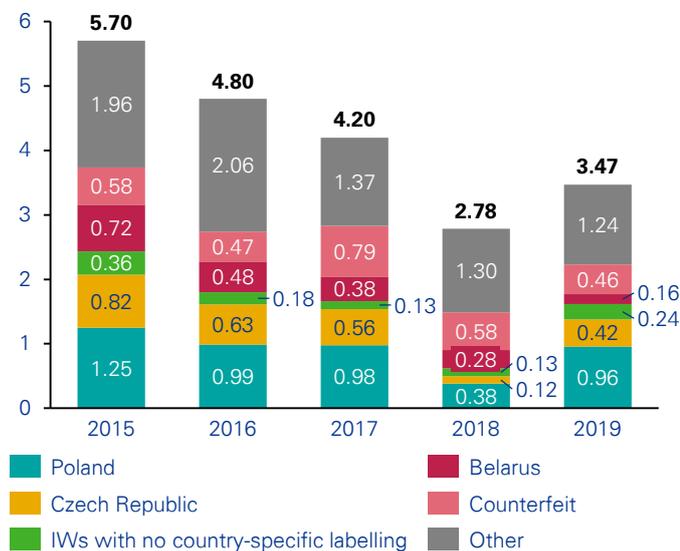


ND(L) by brand – 2015-2019 (bn cigarettes)

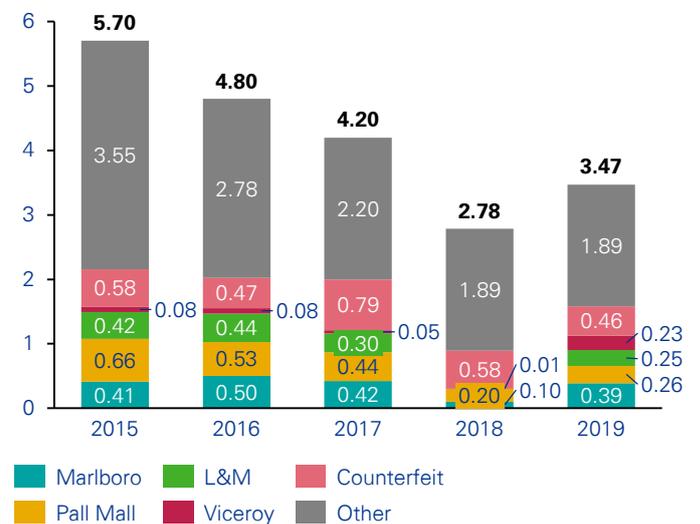


- Non-domestic legal flows declined in 2019, primarily as a result declining flows from Czech Republic
- Increased illicit flows from Poland was the main component of an overall C&C increase in 2019
- C&C shares were higher in eastern Germany, with the highest share observed in the Berlin region

C&C by country of origin – 2015-2019 (bn cigarettes)



C&C by brand – 2015-2019 (bn cigarettes)

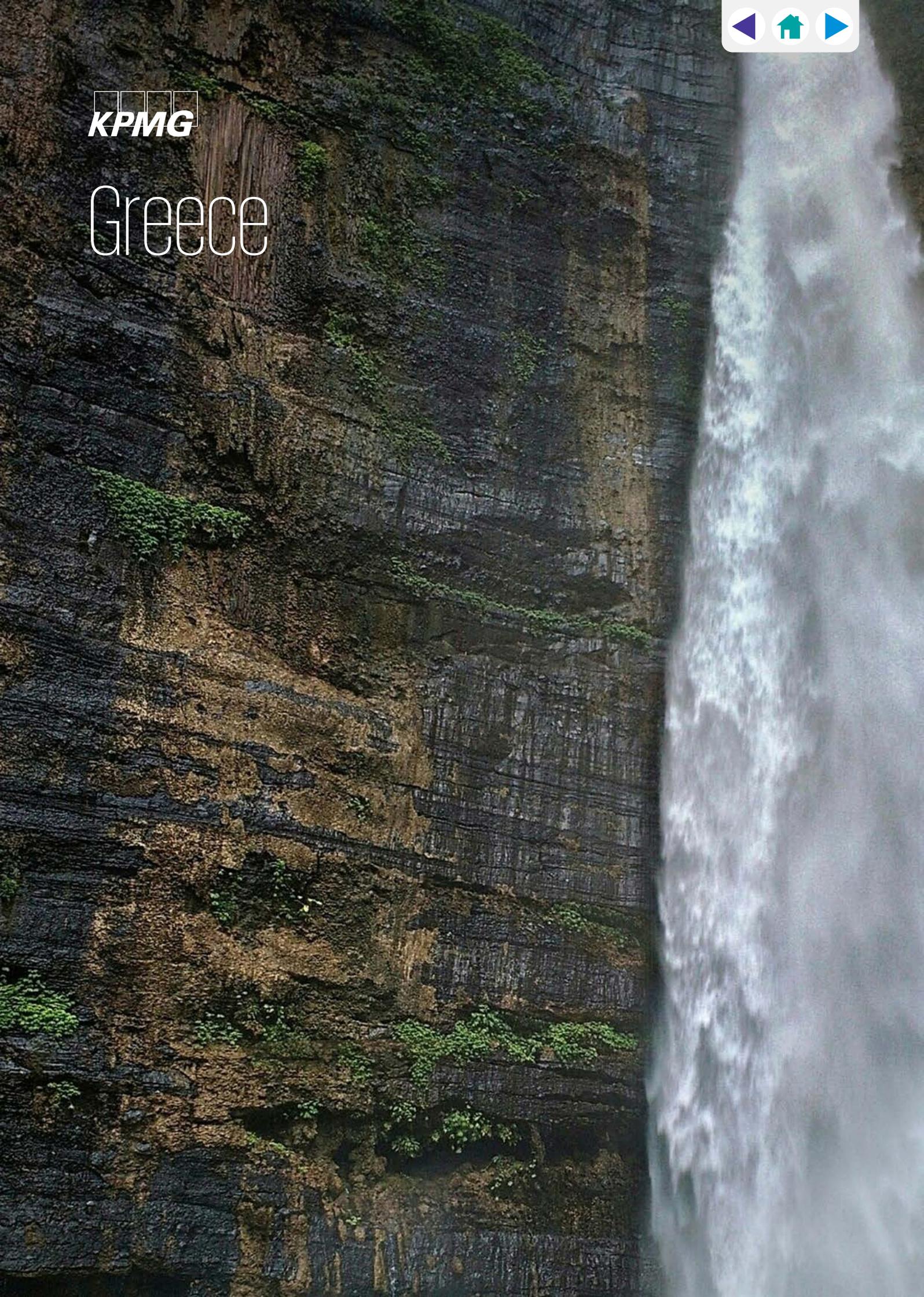


Source: (1) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section



KPMG

Greece





C&C cigarette consumption and total consumption

15.3bn

Cigarettes consumed



-1.32bn on 2018

3.4bn

C&C cigarettes consumed



-0.49bn on 2018

22.4%

Of total consumption was C&C



-1.19%pts on 2018

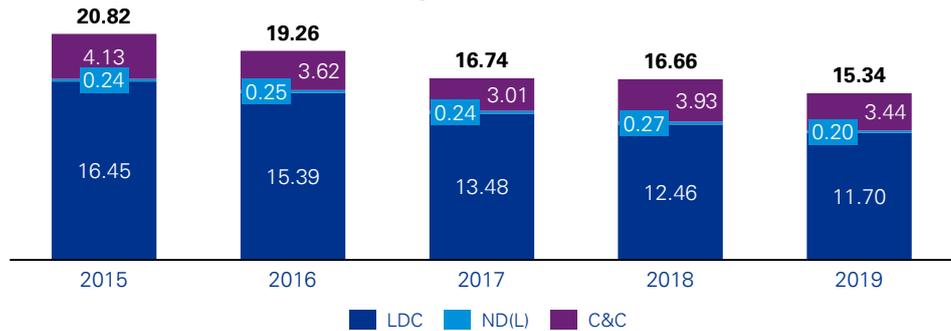
€610m

Total tax revenue lost from C&C



-€80m on 2018

Total consumption – 2015-2019 (bn cigarettes)

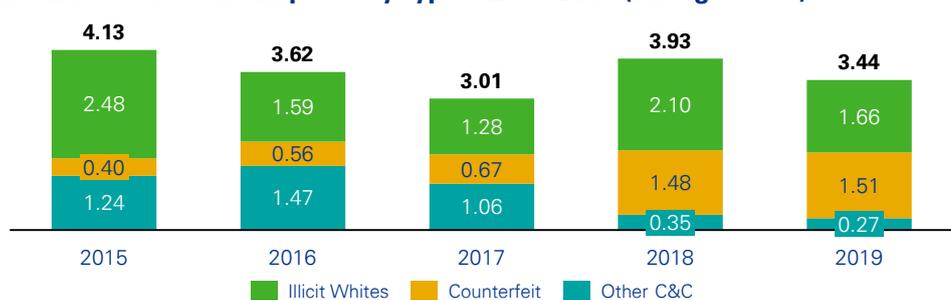


- C&C declined to 22.4% of cigarette consumption in 2019, but remains the highest level of C&C in this study
- Total cigarette consumption decreased by 8%, driven by declining legal domestic sales and decreasing non-domestic volumes
- Over 90% of C&C in 2019 was counterfeit or Illicit Whites
- Counterfeit volumes increased in 2019 to the highest level recorded in Greece in this study. Greece had the second largest counterfeit volume among all the countries included in this study

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2015-2019



Breakdown of C&C consumption by type – 2015-2019 (bn cigarettes)



Note: C&C breakdown chart only includes counterfeit volumes related to brands of manufacturers who participate in the empty pack/yellow bag surveys. Total tax revenue lost represents estimated excise and VAT if C&C volumes had been consumed legally in the country of study

Source: KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2015-2019

Total Greece Consumption						
Billion cigarettes	2015	2016	2017	2018	2019	2018-19 (%)
Legal Domestic Sales (LDS)	16.79	15.77	13.82	12.80	12.14	(5%)
Outflows	(0.34)	(0.38)	(0.34)	(0.34)	(0.44)	29%
Legal Domestic Consumption (LDC)	16.45	15.39	13.48	12.46	11.70	(6%)
Non-Domestic Legal (ND(L))	0.24	0.25	0.24	0.27	0.20	(25%)
Counterfeit and Contraband (C&C)	4.13	3.62	3.01	3.93	3.44	(13%)
Total Non-Domestic	4.36	3.87	3.25	4.20	3.64	(13%)
Total Consumption	20.81	19.26	16.74	16.66	15.34	(8%)

- Inflows to Greece largely consist of flows of counterfeit packs and Illicit Whites, with Illicit Whites flows declining in 2019
- Outflows from Greece principally relate to countries from which Greece is a popular holiday destination, such as Germany, the UK and France

Total inflows by country of origin – 2015-2019

Inflows to Greece					
Billion cigarettes	2015	2016	2017	2018	2019
IWs with no country-specific labelling	2.38	1.54	1.27	2.10	1.61
Counterfeit	0.41	0.56	0.67	1.48	1.51
Other	1.57	1.77	1.31	0.62	0.52
Total Inflows	4.36	3.87	3.25	4.20	3.64

Total outflows by country of origin – 2015-2019

Outflows from Greece					
Billion cigarettes	2015	2016	2017	2018	2019
Germany	(0.12)	(0.11)	(0.12)	(0.13)	(0.15)
UK	(0.05)	(0.08)	(0.08)	(0.02)	(0.07)
France	(0.03)	(0.09)	(0.04)	(0.06)	(0.05)
Romania	(0.00)	0.00	(0.00)	0.00	(0.04)
Italy	(0.02)	(0.01)	(0.01)	(0.05)	(0.02)
Other	(0.12)	(0.09)	(0.08)	(0.09)	(0.11)
Total Outflows	(0.34)	(0.38)	(0.34)	(0.34)	(0.44)

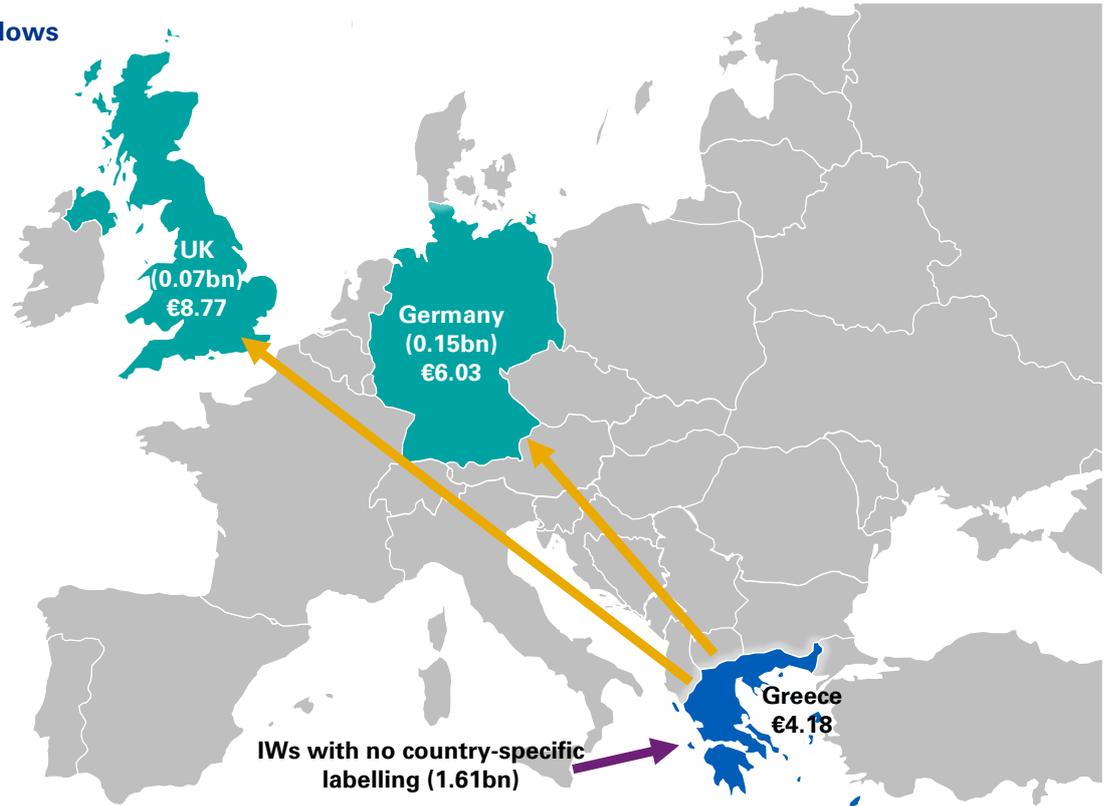
Note: The inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows
 Source: KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

Key flows and C&C consumption patterns

Key inflows and outflows

- Greece
- Source
- Destination
- Inflow
- Outflow

Label description:
Country (Inflow/
Outflow Volume)
WAP



C&C consumption by region^(a)

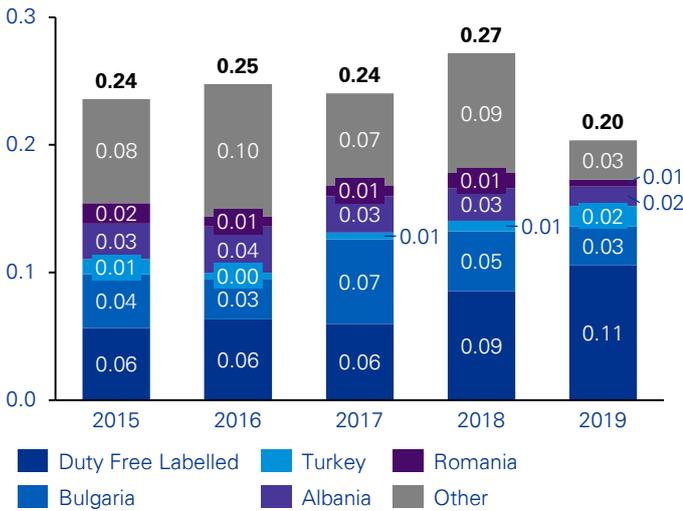


Note: (a) C&C scale is relative to this market and is not comparable with other markets in the study

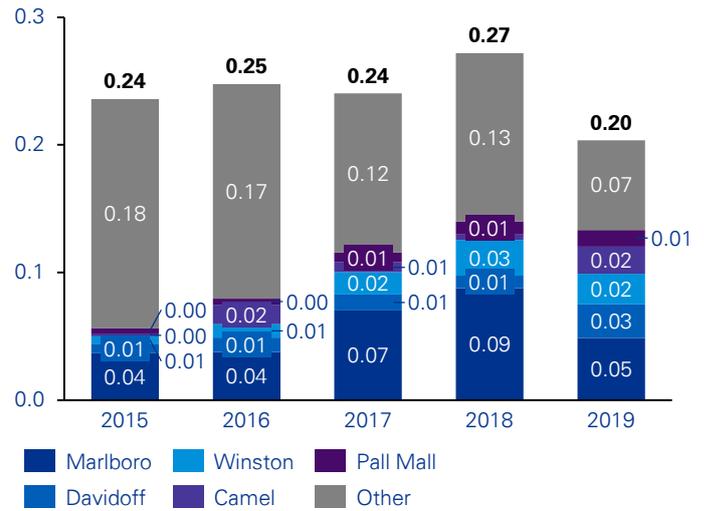
Source: (1) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

ND(L) and C&C flows

ND(L) by country of origin – 2015-2019 (bn cigarettes)

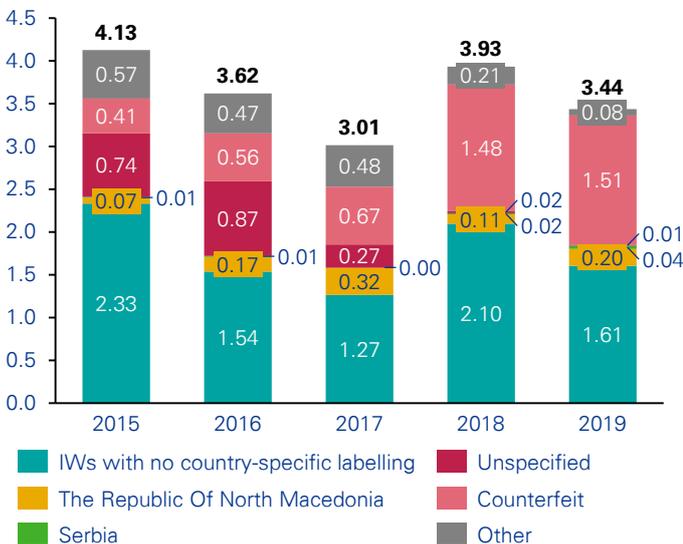


ND(L) by brand – 2015-2019 (bn cigarettes)

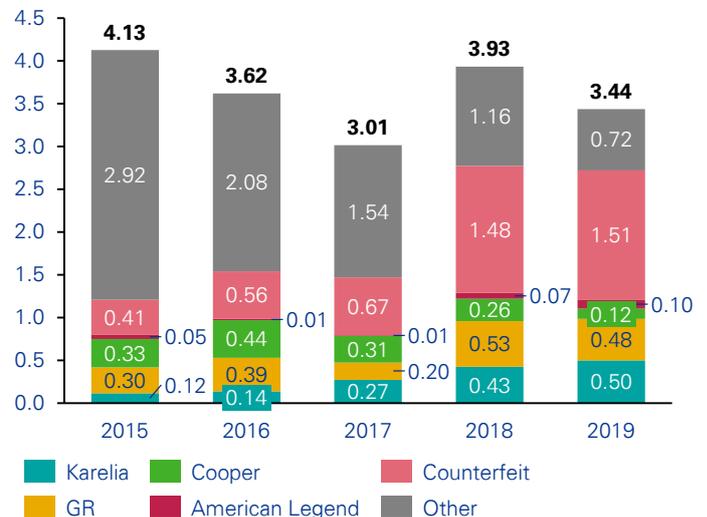


- Declining non-domestic legal flows are driven by lower flows from a multitude of smaller markets within the 'others' balance
- Declining C&C is driven by reduced Illicit White flows
- Karelia, GR, Cooper and American Legend are the most prevalent C&C brands
- Greek law enforcement continues to focus on dismantling illegal factories in Greece, with a number of raids taking place in 2019⁽¹⁾

C&C by country of origin – 2015-2019 (bn cigarettes)



C&C by brand – 2015-2019 (bn cigarettes)

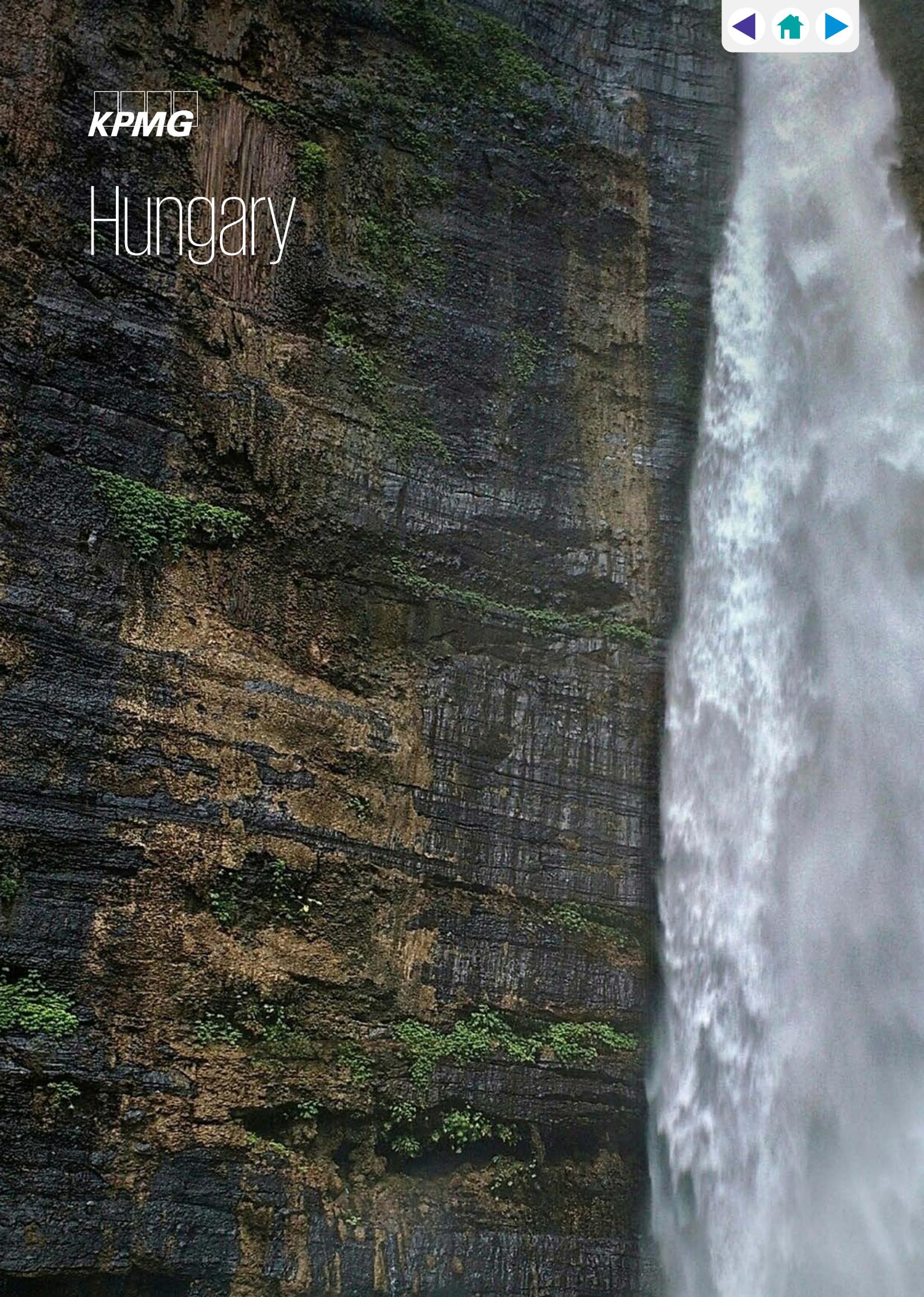


Source: (1) Law enforcement Press Releases: http://www.astynomia.gr/index.php?option=ozo_content&lang=&perform=view&id=88181&Itemid=2319&lang=, http://www.astynomia.gr/index.php?option=ozo_content&lang=...&perform=view&id=88644&Itemid=2313&lang=; (2) KPMG EU Flows Calculation 2019



KPMG

Hungary



C&C cigarette consumption and total consumption

8.6bn

Cigarettes consumed



+0.40bn on 2018

0.6bn

C&C cigarettes consumed



+0.09bn on 2018

7.2%

Of total consumption was C&C



+0.77%pts on 2018

€83m

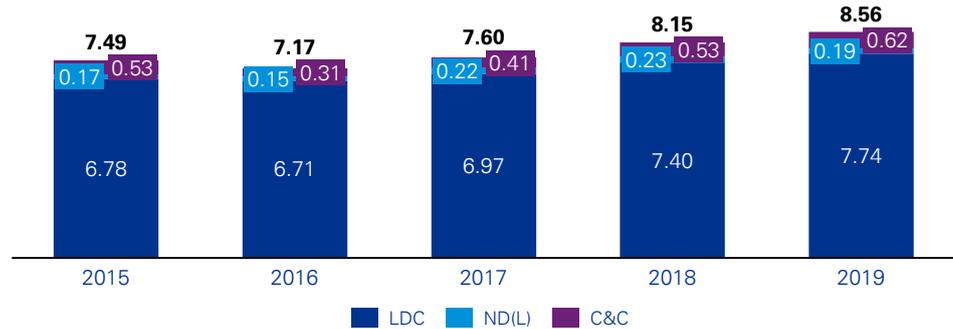
(Ft28,059m)⁽¹⁾

Total tax revenue lost from C&C



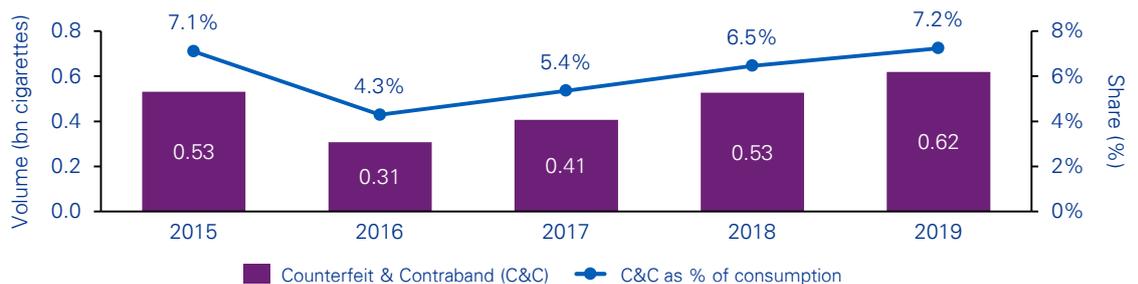
+€12m on 2018

Total consumption – 2015-2019 (bn cigarettes)

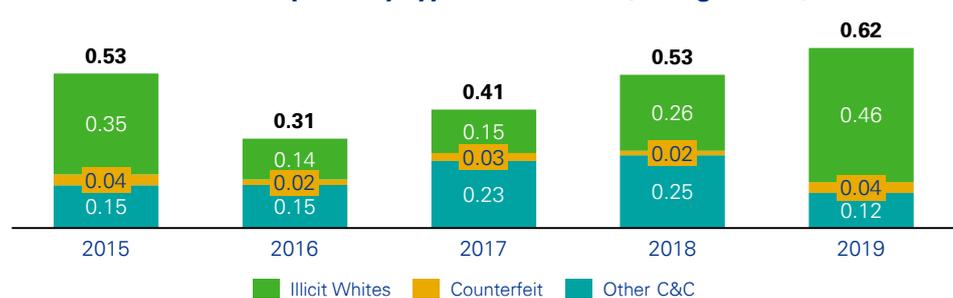


- C&C increased to 7.2% of total consumption in 2019, driven by increased Illicit Whites volumes
- Total consumption also increased by 5% in 2019, continuing a trend seen since 2016

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2015-2019



Breakdown of C&C consumption by type – 2015-2019 (bn cigarettes)



Note: C&C breakdown chart only includes counterfeit volumes related to brands of manufacturers who participate in the empty pack/yellow bag surveys. Total tax revenue lost represents estimated excise and VAT if C&C volumes had been consumed legally in the country of study

Source: (1) EUR 1 = Ft 336.25, InforEuro, European Commission, December 2019; (2) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2015-2019

Total Hungarian Consumption						
Billion cigarettes	2015	2016	2017	2018	2019	2018-19 (%)
Legal Domestic Sales (LDS)	7.34	7.44	7.59	7.99	8.21	3%
Outflows	(0.56)	(0.73)	(0.62)	(0.59)	(0.46)	(22%)
Legal Domestic Consumption (LDC)	6.78	6.71	6.97	7.40	7.74	5%
Non-Domestic Legal (ND(L))	0.17	0.15	0.22	0.23	0.19	(15%)
Counterfeit and Contraband (C&C)	0.53	0.31	0.41	0.53	0.62	17%
Total Non-Domestic	0.70	0.46	0.63	0.76	0.81	8%
Total Consumption	7.49	7.17	7.60	8.15	8.56	5%

- Inflows of Illicit Whites with no country-specific labelling grew in 2019, and accounted for more than half of inflows into Hungary, all of which were considered illicit
- Neighbouring Ukraine remains the second largest inflow source
- Neighbouring Austria is the main outflow destination from Hungary

Total inflows by country of origin – 2015-2019

Inflows to Hungary						
Billion cigarettes	2015	2016	2017	2018	2019	
IWs with no country-specific labelling	0.22	0.12	0.13	0.29	0.44	
Ukraine	0.09	0.15	0.25	0.20	0.17	
Counterfeit	0.04	0.02	0.03	0.02	0.04	
Other	0.36	0.18	0.23	0.25	0.16	
Total Inflows	0.70	0.46	0.63	0.76	0.81	

Total outflows by country of origin – 2015-2019

Outflows from Hungary						
Billion cigarettes	2015	2016	2017	2018	2019	
Austria	(0.25)	(0.40)	(0.31)	(0.24)	(0.23)	
Germany	(0.12)	(0.09)	(0.09)	(0.11)	(0.07)	
UK	(0.08)	(0.15)	(0.10)	(0.04)	(0.04)	
Czech Republic	(0.01)	(0.00)	(0.00)	(0.03)	(0.02)	
France	(0.01)	(0.01)	(0.01)	(0.03)	(0.02)	
Other	(0.10)	(0.08)	(0.11)	(0.13)	(0.08)	
Total Outflows	(0.56)	(0.73)	(0.62)	(0.59)	(0.46)	

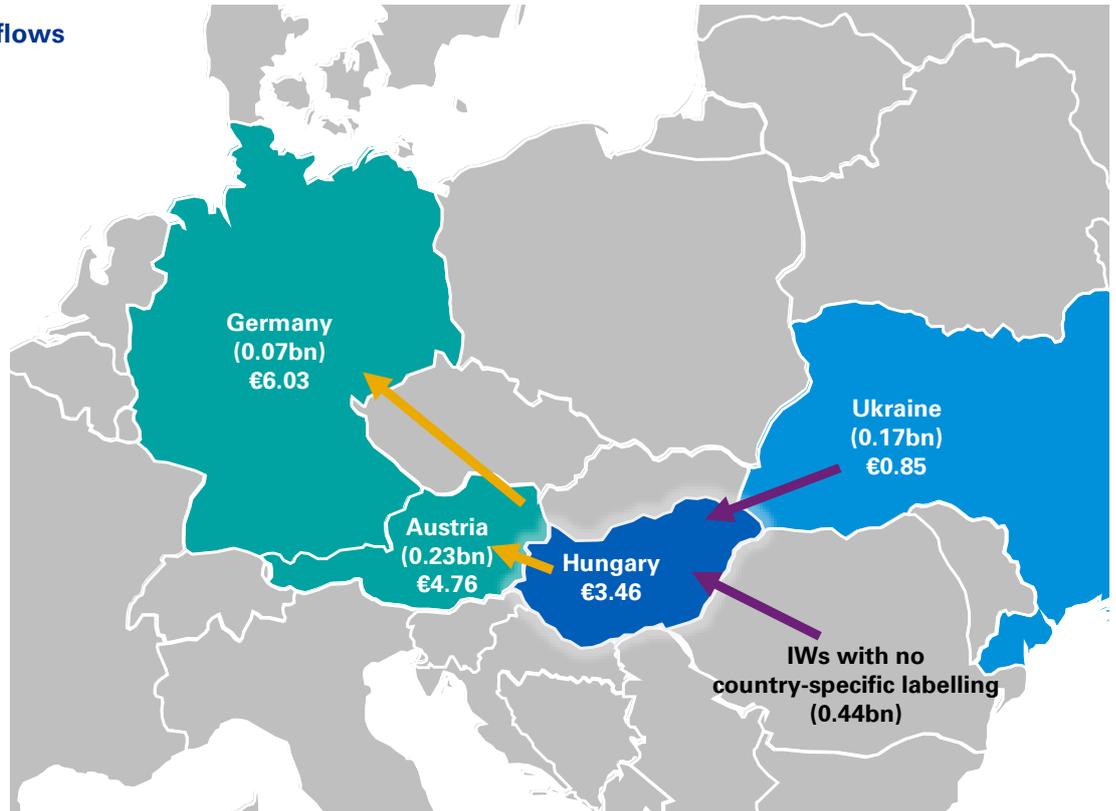
Note: The inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows
Source: KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

Key flows and C&C consumption patterns

Key inflows and outflows

- Hungary
- Source
- Destination
- Inflow
- Outflow

Label description:
Country (Inflow/
Outflow Volume)
WAP



C&C consumption by region^(a)



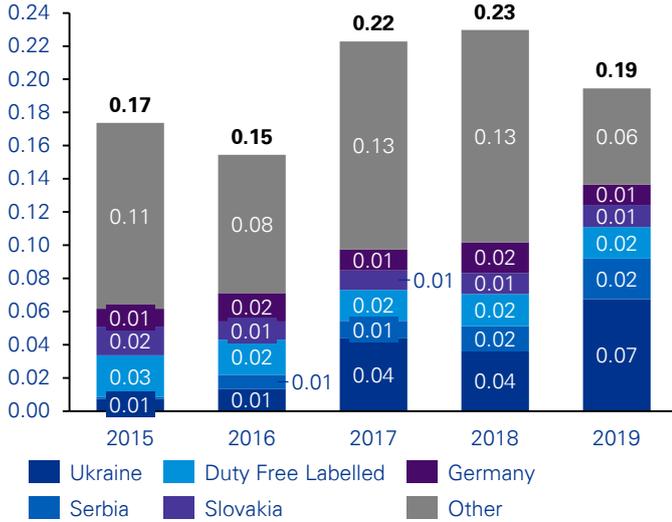
Low High

Note: (a) C&C scale is relative to this market and is not comparable with other markets in the study

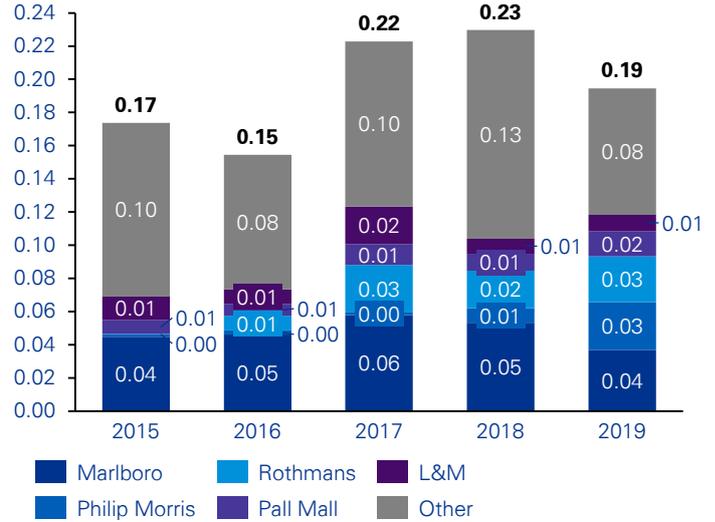
Source: (1) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

ND(L) and C&C flows

ND(L) by country of origin – 2015-2019 (bn cigarettes)

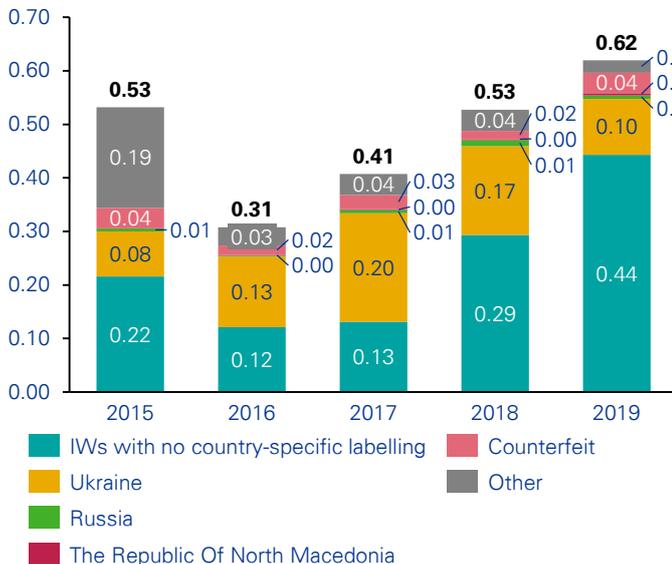


ND(L) by brand – 2015-2019 (bn cigarettes)

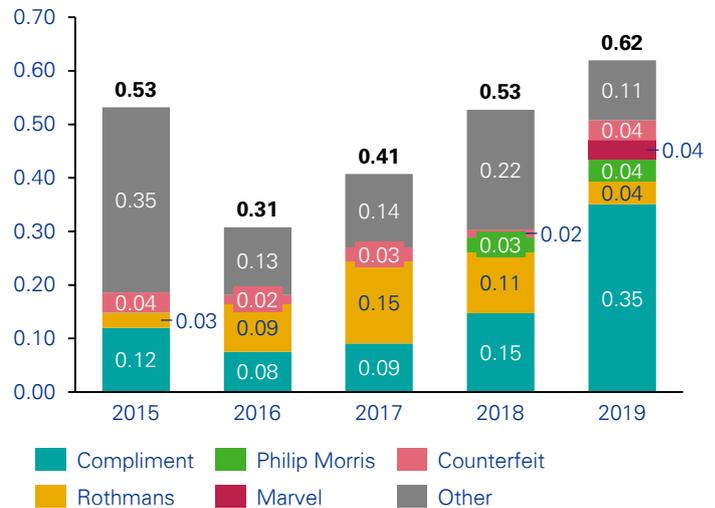


- Illicit Whites flows continued to increase in 2019, with Compliment the most prevalent brand
- C&C consumption was highest in the North East of the country

C&C by country of origin – 2015-2019 (bn cigarettes)



C&C by brand – 2015-2019 (bn cigarettes)

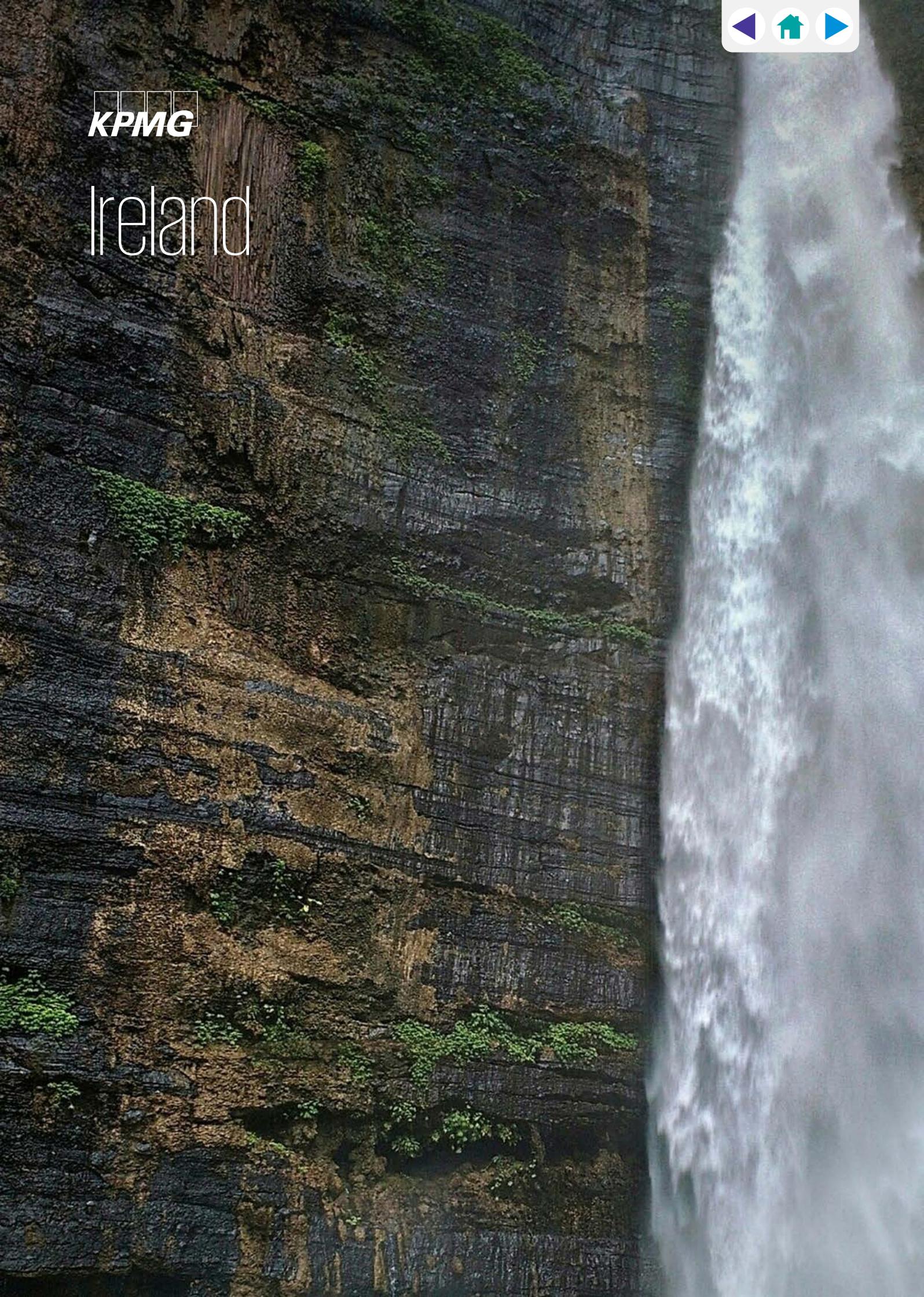


Source: (1) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section



KPMG

Ireland





C&C cigarette consumption and total consumption

3.8bn

Cigarettes consumed



+0.09bn on 2018

0.7bn

C&C cigarettes consumed



-0.10bn on 2018

17.5%

Of total consumption was C&C



-3.06%pts on 2018

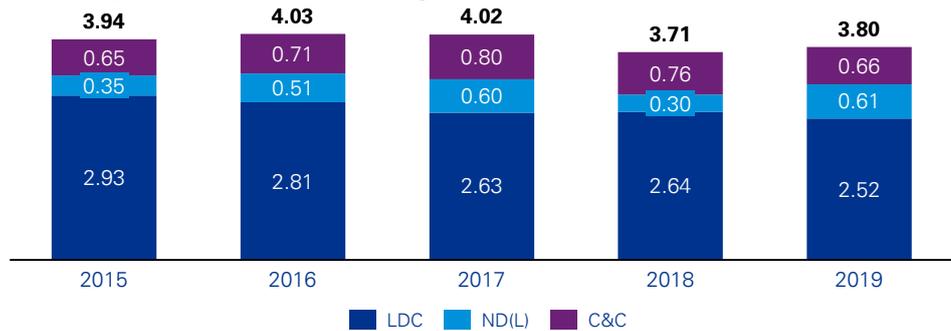
€322m

Total tax revenue lost from C&C



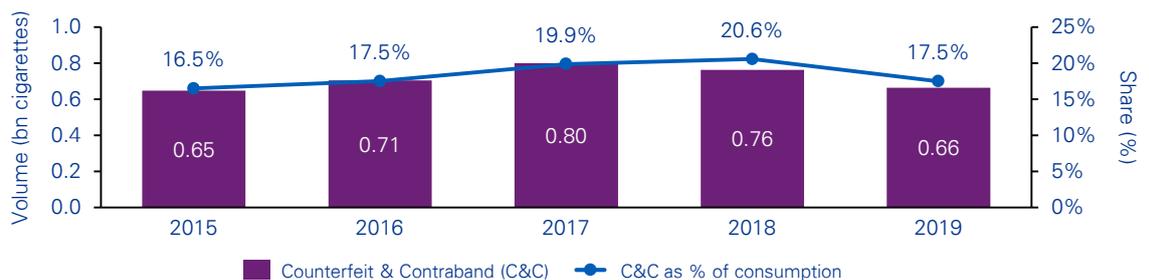
-€20m on 2018

Total consumption – 2015-2019 (bn cigarettes)

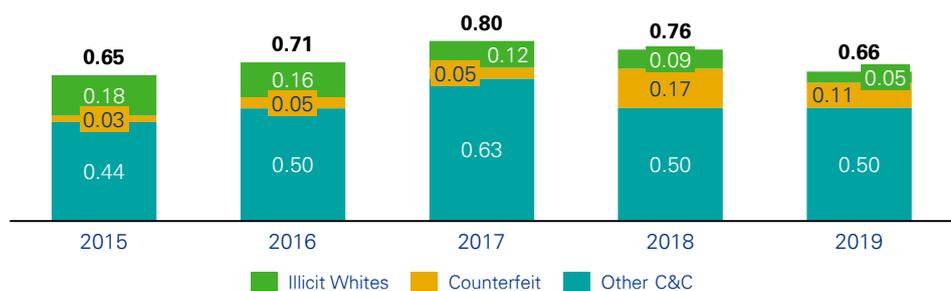


- C&C declined to 17.5% of total cigarette consumption in 2019, but still represents the third highest C&C share in this study
- Total consumption showed a marginal increase on 2018 volumes, with decline in domestic consumption offset by increased non-domestic flows

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2015-2019



Breakdown of C&C consumption by type – 2015-2019 (bn cigarettes)



Note: C&C breakdown chart only includes counterfeit volumes related to brands of manufacturers who participate in the empty pack/yellow bag surveys. Total tax revenue lost represents estimated excise and VAT if C&C volumes had been consumed legally in the country of study

Source: KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2015-2019

Total Ireland Consumption						
Billion cigarettes	2015	2016	2017	2018	2019	2018-19 (%)
Legal Domestic Sales (LDS)	3.05	2.90	2.73	2.75	2.55	(7%)
Outflows	(0.12)	(0.09)	(0.10)	(0.11)	(0.03)	(73%)
Legal Domestic Consumption (LDC)	2.93	2.81	2.63	2.64	2.52	(5%)
Non-Domestic Legal (ND(L))	0.35	0.51	0.60	0.30	0.61	101%
Counterfeit and Contraband (C&C)	0.65	0.71	0.80	0.76	0.66	(13%)
Total Non-Domestic	1.00	1.22	1.40	1.07	1.27	19%
Total Consumption	3.93	4.03	4.02	3.71	3.80	2%

- Inflows from the UK and Spain increased in 2019. High traveller numbers indicated these flows were predominately legal
- As one of the highest-priced markets in the study, outflows from Ireland are low

Total inflows by country of origin – 2015-2019

Inflows to Ireland					
Billion cigarettes	2015	2016	2017	2018	2019
Duty Free Labelled	0.16	0.15	0.20	0.14	0.14
UK	0.08	0.12	0.12	0.06	0.12
Spain	0.05	0.10	0.12	0.05	0.12
Counterfeit	0.03	0.05	0.05	0.17	0.11
Romania	0.08	0.08	0.10	0.17	0.11
Other	0.60	0.71	0.80	0.47	0.67
Total Inflows	1.00	1.22	1.40	1.07	1.27

Total outflows by country of origin – 2015-2019

Outflows from Ireland					
Billion cigarettes	2015	2016	2017	2018	2019
Netherlands	(0.01)	(0.02)	(0.02)	(0.02)	(0.01)
UK	(0.10)	(0.06)	(0.06)	(0.07)	(0.01)
Other	(0.01)	(0.01)	(0.02)	(0.01)	(0.01)
Total Outflows	(0.12)	(0.09)	(0.10)	(0.11)	(0.03)

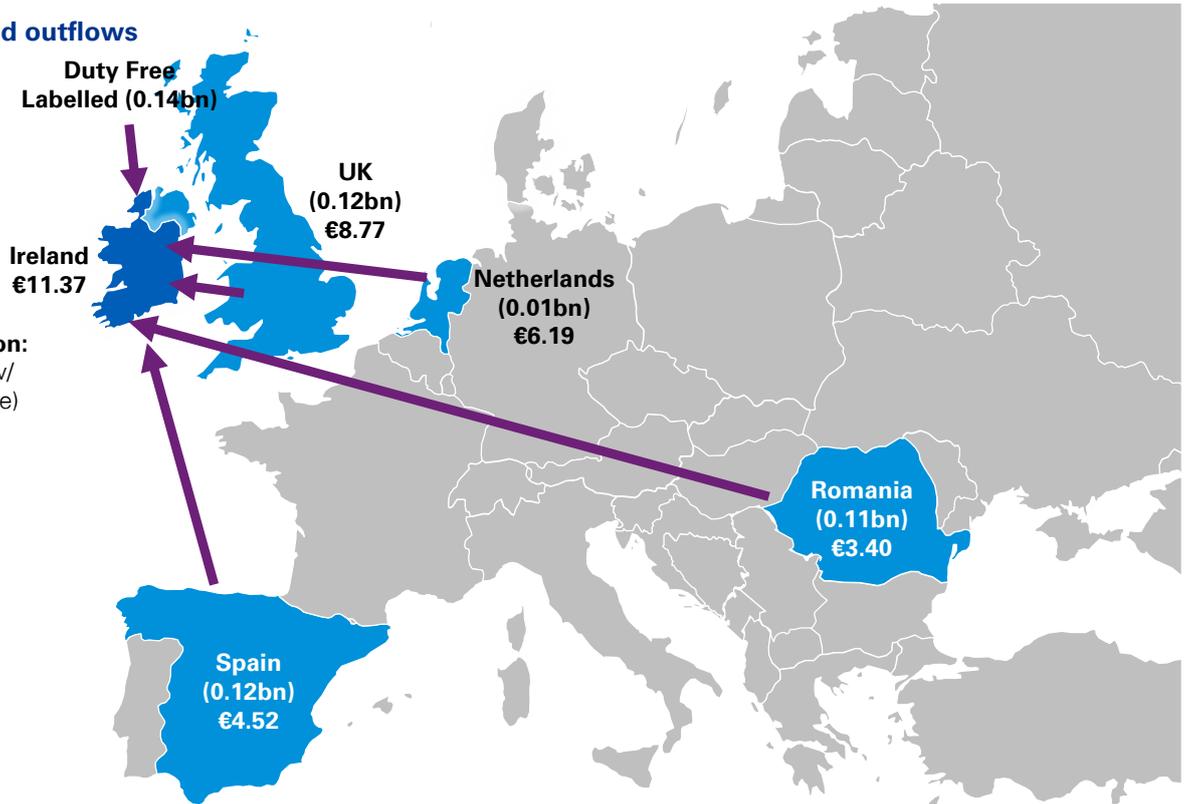
Note: The inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows
 Source: KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

Key flows and C&C consumption patterns

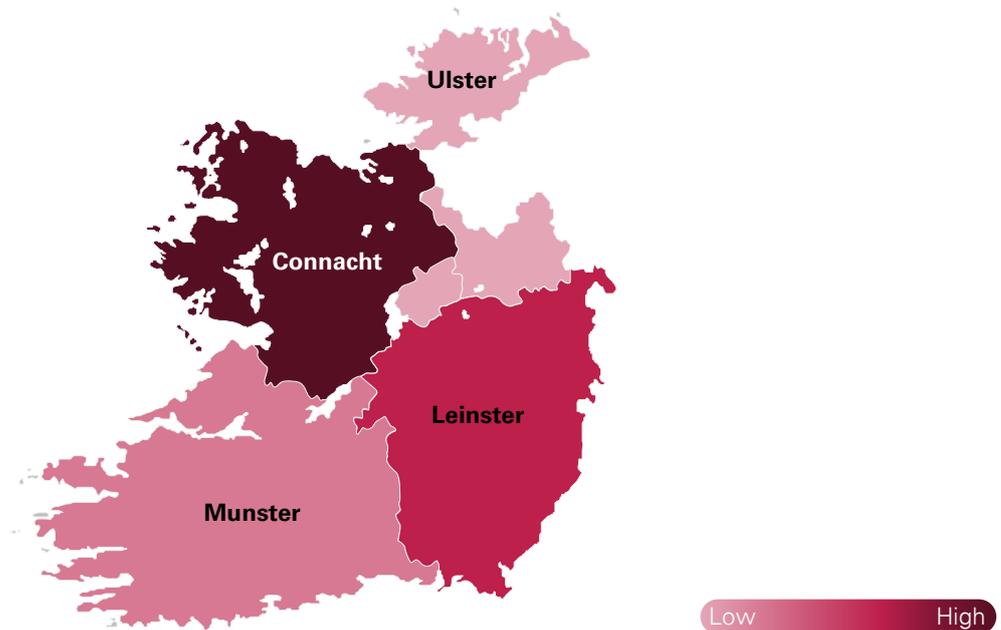
Key inflows and outflows

- Ireland
- Source
- Destination
- Inflow
- Outflow

Label description:
Country (Inflow/
Outflow Volume)
WAP



C&C consumption by region^(a)

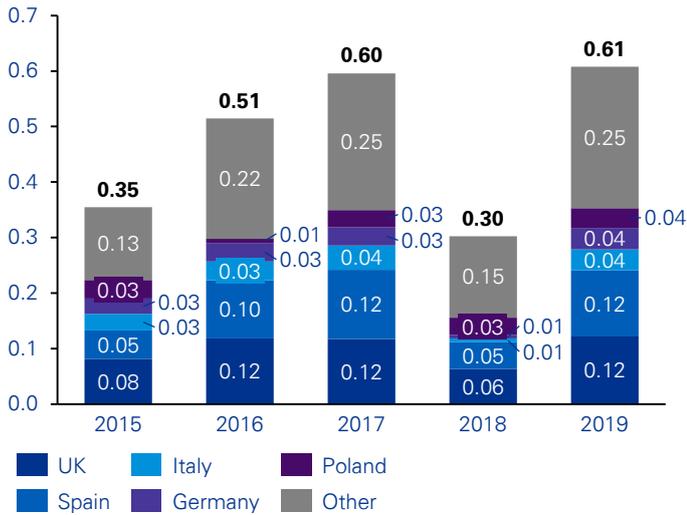


Note: (a) C&C scale is relative to this market and is not comparable with other markets in the study

Source: (1) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

ND(L) and C&C flows

ND(L) by country of origin – 2015-2019 (bn cigarettes)

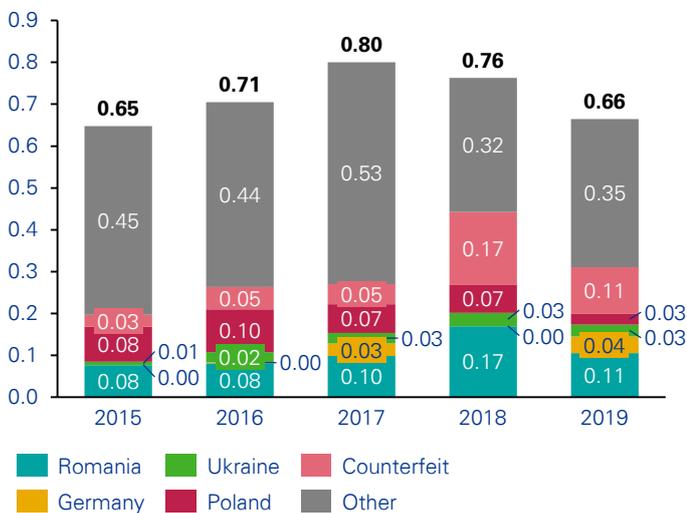


ND(L) by brand – 2015-2019 (bn cigarettes)

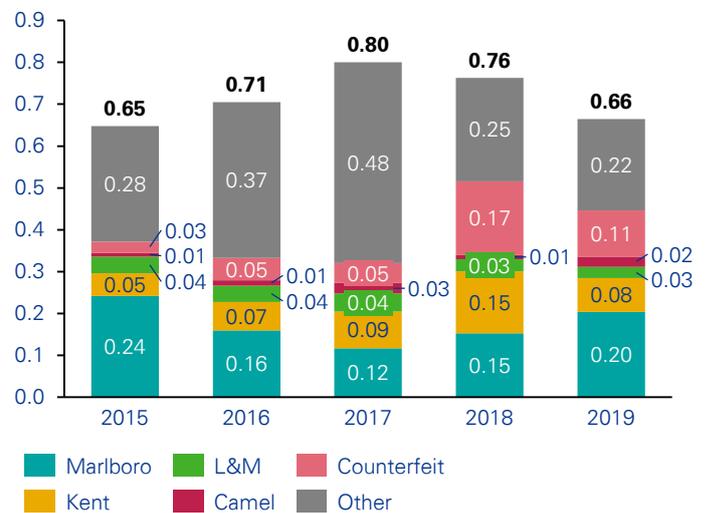


- Increasing non-domestic legal inflows were driven by increased flows from the UK and Spain
- Decreasing flows from Romania, Poland, and counterfeit drove overall C&C declines in 2019
- None of the counterfeit volumes identified in 2019 were in plain packaging

C&C by country of origin – 2015-2019 (bn cigarettes)



C&C by brand – 2015-2019 (bn cigarettes)

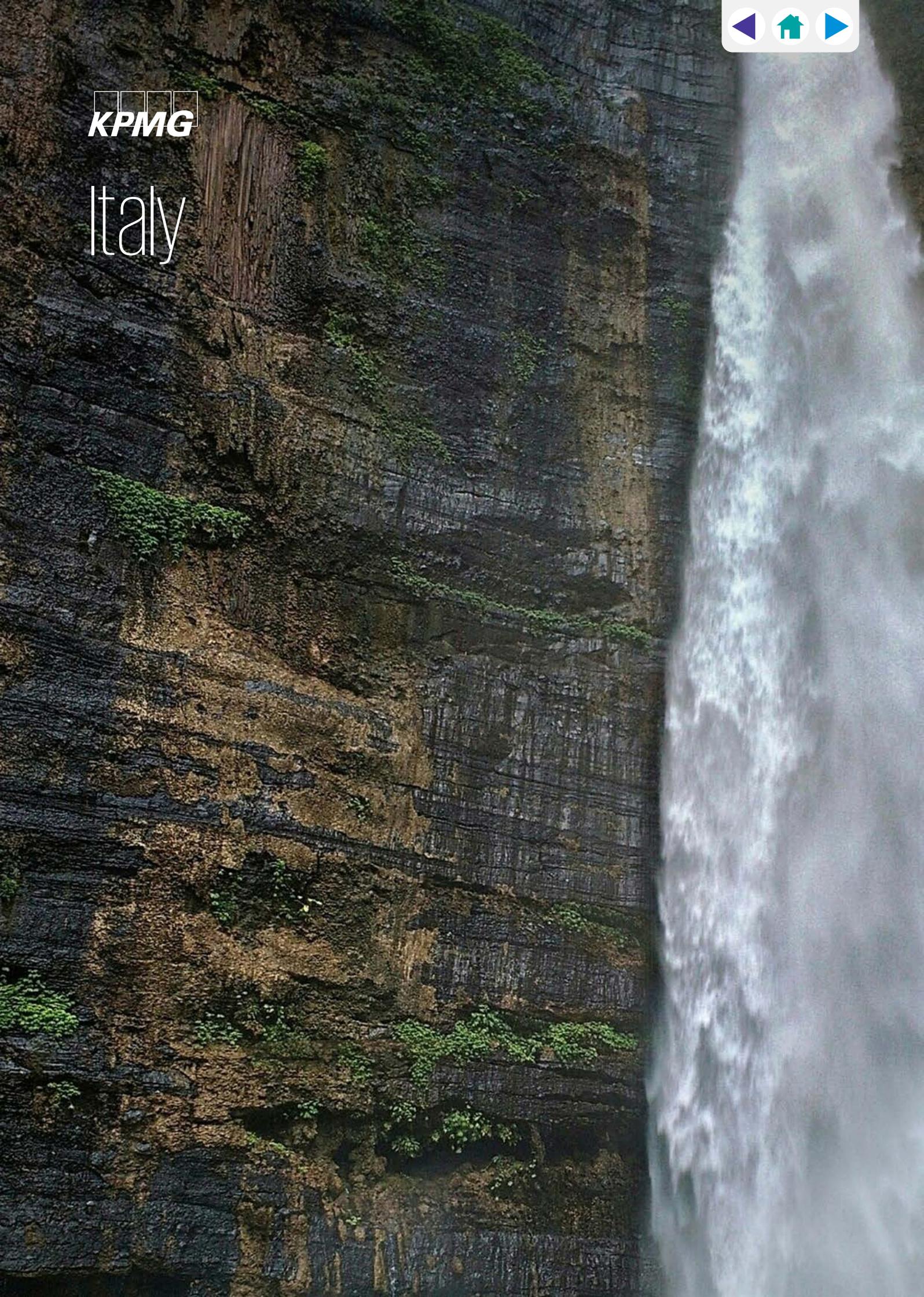


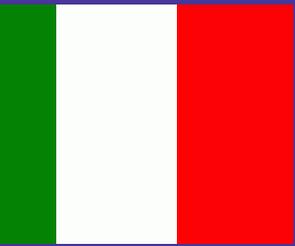
Source: (1) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section



KPMG

Italy





C&C cigarette consumption and total consumption

67.4bn

Cigarettes consumed



-4.45bn on 2018

2.6bn

C&C cigarettes consumed



-1.37bn on 2018

3.9%

Of total consumption was C&C



-1.67%pts on 2018

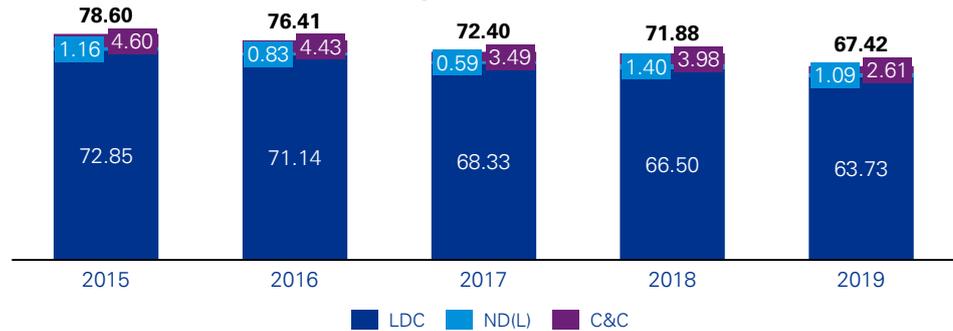
€495m

Total tax revenue lost from C&C



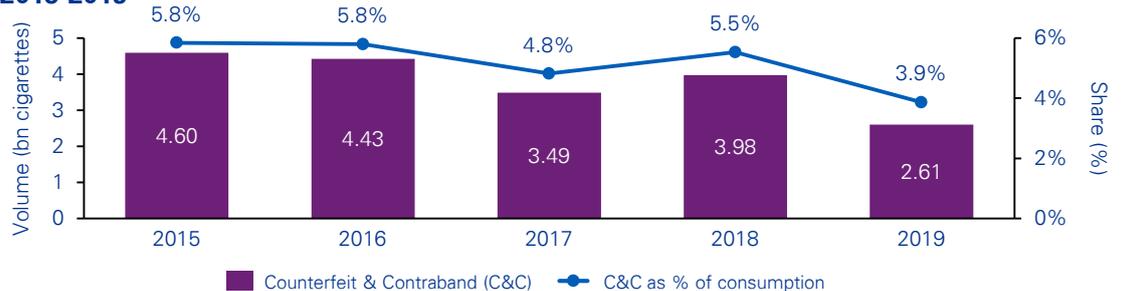
-€235m on 2018

Total consumption – 2015-2019 (bn cigarettes)

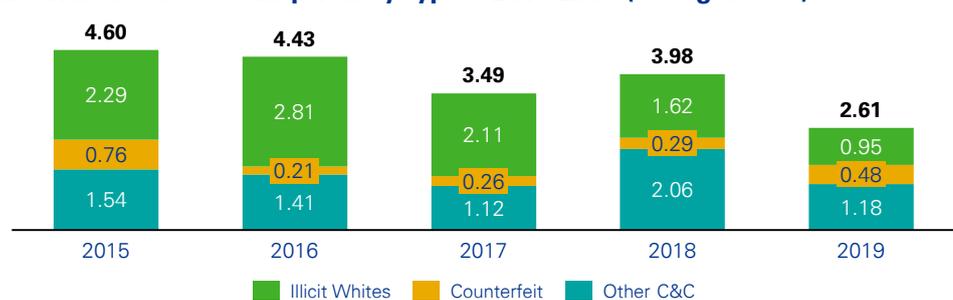


- C&C declined to 3.9% of total cigarette consumption in 2019, the lowest level seen in the reporting period
- There were volume declines in Illicit White and other C&C flows in 2019, partly offset by an increase in counterfeit
- Total cigarette consumption declined by 6% in 2019, an accelerating trend over 2017 and 2018, supported by growth of e-cigarettes, heated tobacco and other smokeless products in the market⁽¹⁾

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2015-2019



Breakdown of C&C consumption by type – 2015-2019 (bn cigarettes)



Note: C&C breakdown chart only includes counterfeit volumes related to brands of manufacturers who participate in the empty pack/yellow bag surveys. Total tax revenue lost represents estimated excise and VAT if C&C volumes had been consumed legally in the country of study

Source: (1) 'Cigarettes in Western Europe', Euromonitor, October 2019; (2) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

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Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2015-2019

Total Italy Consumption						
Billion cigarettes	2015	2016	2017	2018	2019	2018-19 (%)
Legal Domestic Sales (LDS)	73.82	72.05	69.33	67.46	64.63	(4%)
Outflows	(0.98)	(0.91)	(1.00)	(0.97)	(0.90)	(7%)
Legal Domestic Consumption (LDC)	72.85	71.14	68.33	66.50	63.73	(4%)
Non-Domestic Legal (ND(L))	1.16	0.83	0.59	1.40	1.09	(22%)
Counterfeit and Contraband (C&C)	4.60	4.43	3.49	3.98	2.61	(35%)
Total Non-Domestic	5.75	5.26	4.08	5.38	3.70	(31%)
Total Consumption	78.60	76.41	72.40	71.88	67.42	(6%)

- Despite a large decline in 2019, Illicit Whites with no country-specific labelling remain the largest inflow to Italy
- Counterfeit volumes increased to 0.48bn in 2019, the highest level recorded since 2015

Total inflows by country of origin – 2015-2019

Inflows to Italy						
Billion cigarettes	2015	2016	2017	2018	2019	
IWs with no country-specific labelling	1.67	2.47	1.39	1.60	0.82	
Duty Free Labelled	0.68	0.40	0.41	0.77	0.68	
Counterfeit	0.76	0.20	0.26	0.29	0.48	
Slovenia	0.21	0.15	0.12	0.18	0.41	
Ukraine	0.32	0.99	0.46	0.44	0.21	
Other	2.11	1.05	1.45	2.09	1.10	
Total Inflows	5.75	5.26	4.08	5.38	3.70	

Total outflows by country of origin – 2015-2019

Outflows from Italy						
Billion cigarettes	2015	2016	2017	2018	2019	
France	(0.33)	(0.40)	(0.35)	(0.33)	(0.38)	
Germany	(0.10)	(0.10)	(0.07)	(0.16)	(0.10)	
Netherlands	(0.13)	(0.07)	(0.17)	(0.14)	(0.07)	
Switzerland	(0.18)	(0.11)	(0.14)	(0.10)	(0.06)	
UK	(0.05)	(0.05)	(0.05)	(0.03)	(0.05)	
Other	(0.19)	(0.18)	(0.21)	(0.20)	(0.24)	
Total Outflows	(0.98)	(0.91)	(1.00)	(0.97)	(0.90)	

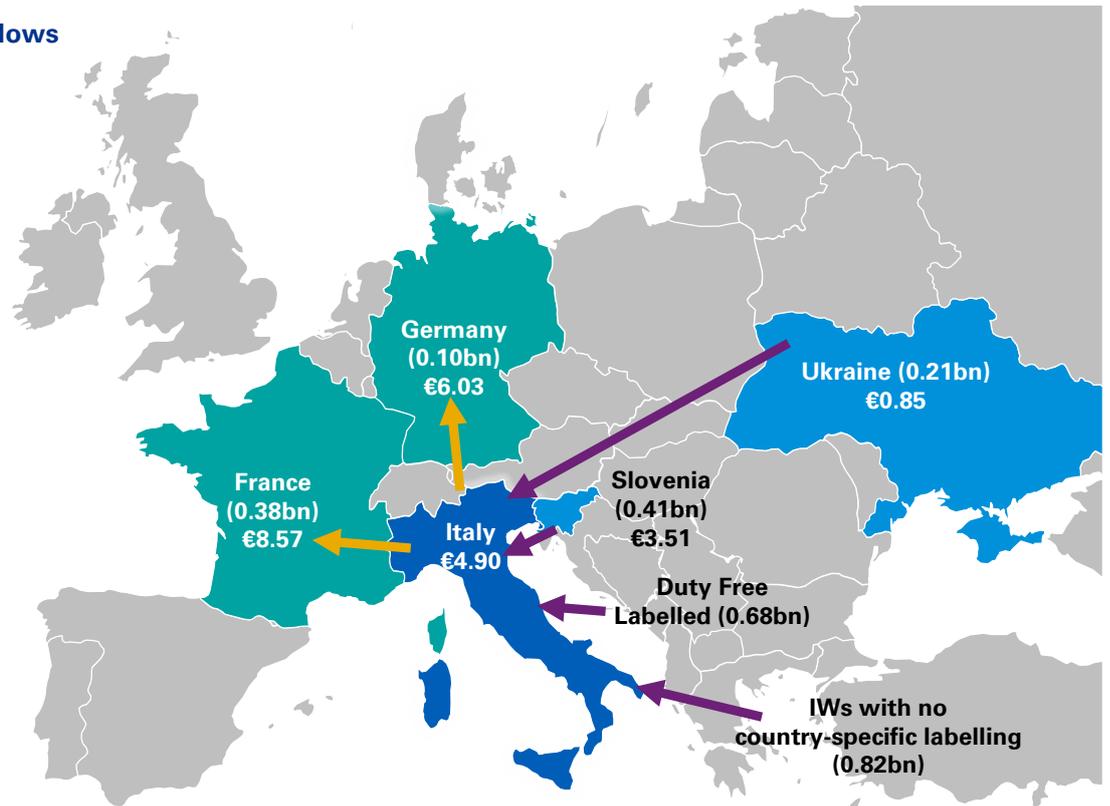
Note: The inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows
Source: KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

Key flows and C&C consumption patterns

Key inflows and outflows

- Italy
- Source
- Destination
- Inflow
- Outflow

Label description:
Country (Inflow/
Outflow Volume)
WAP



C&C consumption by region^(a)



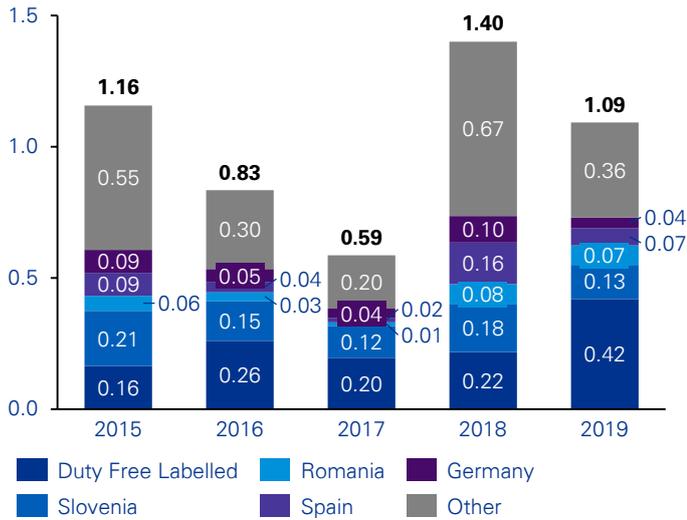
Low High

Note: (a) C&C scale is relative to this market and is not comparable with other markets in the study

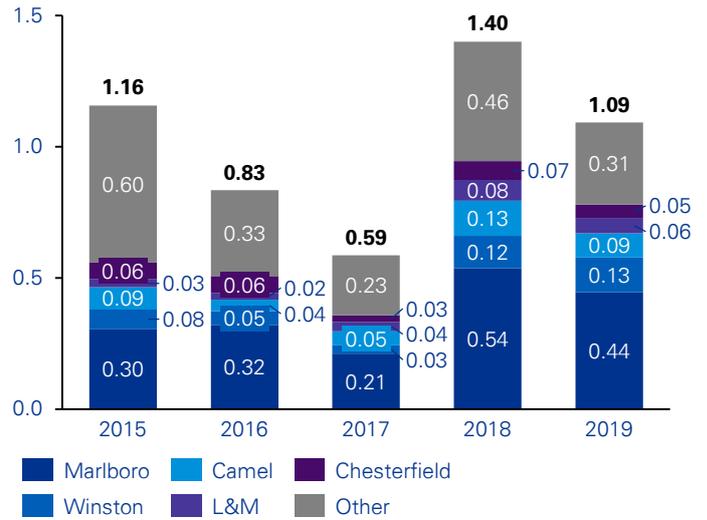
Source: (1) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

ND(L) and C&C flows

ND(L) by country of origin – 2015-2019 (bn cigarettes)

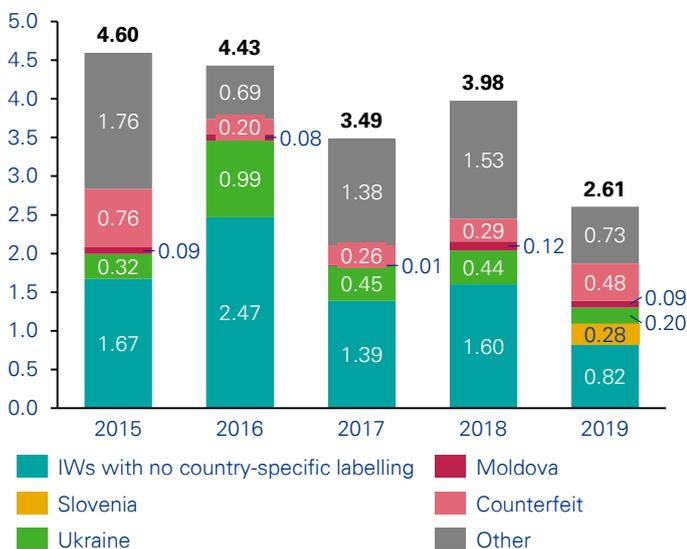


ND(L) by brand – 2015-2019 (bn cigarettes)

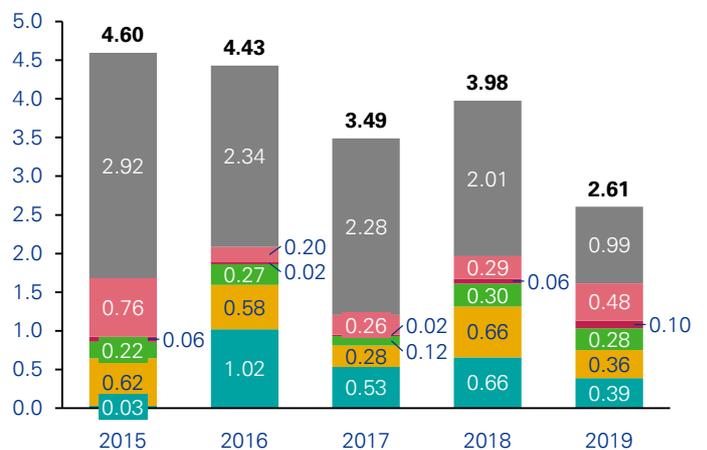


- Almost half of Illicit Whites with no country-specific labelling related to the flows of one Illicit White brand, Regina
- Friuli Venezia Giulia and the Campania region had the highest levels of C&C in 2019

C&C by country of origin – 2015-2019 (bn cigarettes)



C&C by brand – 2015-2019 (bn cigarettes)

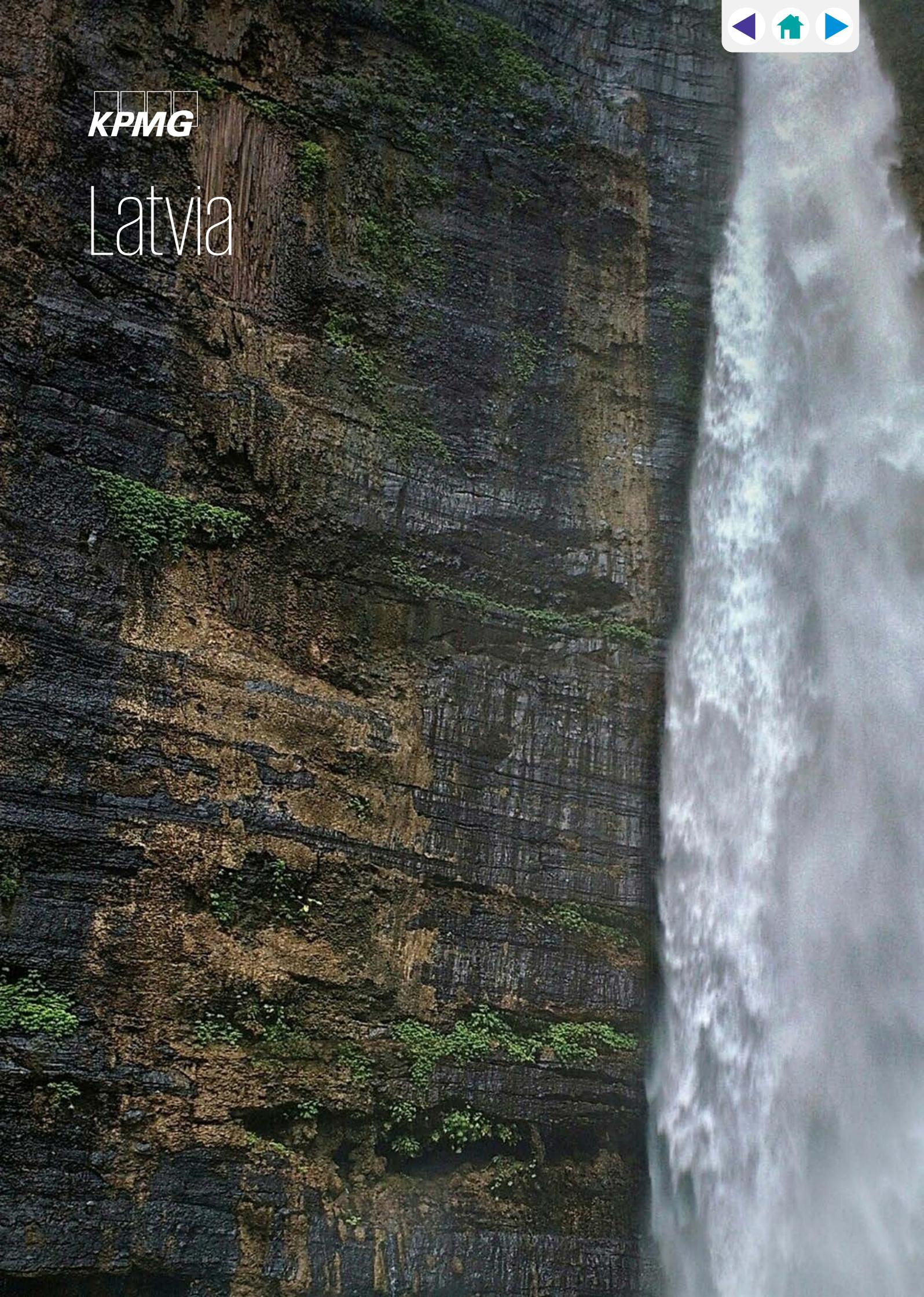


Source: (1) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section



KPMG

Latvia



C&C cigarette consumption and total consumption

2.1bn

Cigarettes consumed



-0.17bn on 2018

0.3bn

C&C cigarettes consumed



-0.15bn on 2018

14.1%

Of total consumption was C&C



-5.38%pts on 2018

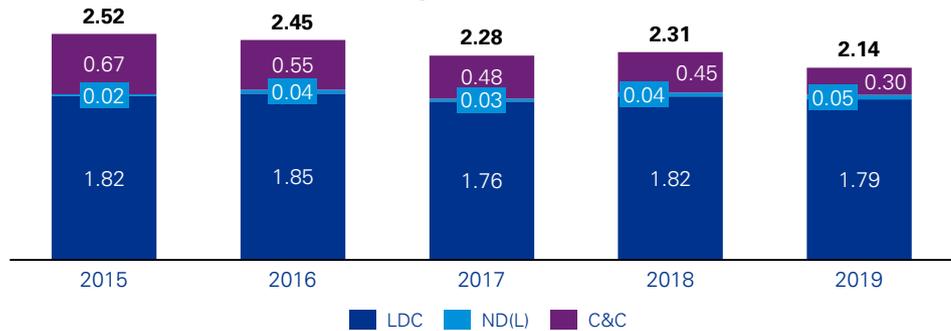
€41m

Total tax revenue lost from C&C



-€20m on 2018

Total consumption – 2015-2019 (bn cigarettes)



- C&C accounted for 14.1% of total cigarette consumption in 2019
- Although declining, share of non-domestic remains relatively high, with the majority of non-domestic inflows to Latvia considered illicit as they are largely comprised of Illicit Whites and counterfeit
- Total cigarette consumption also declined in 2019, as both legal domestic consumption and non-domestic inflows decreased
- Illicit Whites remained the largest element of C&C

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2015-2019



Breakdown of C&C consumption by type – 2015-2019 (bn cigarettes)



Note: C&C breakdown chart only includes counterfeit volumes related to brands of manufacturers who participate in the empty pack/yellow bag surveys. Total tax revenue lost represents estimated excise and VAT if C&C volumes had been consumed legally in the country of study

Source: KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2015-2019

Total Latvia Consumption						
Billion cigarettes	2015	2016	2017	2018	2019	2018-19 (%)
Legal Domestic Sales (LDS)	1.915	1.947	1.886	1.940	1.902	(2%)
Outflows	(0.092)	(0.097)	(0.123)	(0.119)	(0.116)	(3%)
Legal Domestic Consumption (LDC)	1.823	1.851	1.763	1.821	1.787	(2%)
Non-Domestic Legal (ND(L))	0.021	0.045	0.033	0.040	0.052	29%
Counterfeit and Contraband (C&C)	0.671	0.552	0.481	0.451	0.302	(33%)
Total Non-Domestic	0.692	0.593	0.514	0.491	0.354	(28%)
Total Consumption	2.515	2.444	2.276	2.312	2.141	(7%)

— Neighbouring Belarus continued to be the largest source of inflows at 0.27bn. Due to the 40 cigarette limit imposed on land border crossings, the majority of this inflow is considered illicit

Total inflows by country of origin – 2015-2019

Inflows to Latvia					
Billion cigarettes	2015	2016	2017	2018	2019
Belarus	0.467	0.408	0.343	0.324	0.268
Duty Free Labelled	0.013	0.013	0.014	0.039	0.029
Other	0.212	0.172	0.156	0.128	0.056
Total Inflows	0.692	0.593	0.514	0.491	0.354

Total outflows by country of origin – 2015-2019

Outflows from Latvia					
Billion cigarettes	2015	2016	2017	2018	2019
Sweden	(0.007)	(0.012)	(0.017)	(0.011)	(0.037)
Finland	(0.009)	(0.004)	(0.017)	(0.017)	(0.021)
Germany	(0.016)	(0.012)	(0.016)	(0.006)	(0.013)
Estonia	(0.003)	(0.015)	(0.029)	(0.030)	(0.009)
Ireland	(0.004)	(0.007)	(0.005)	(0.006)	(0.006)
Other	(0.052)	(0.047)	(0.039)	(0.048)	(0.029)
Total Outflows	(0.092)	(0.097)	(0.123)	(0.119)	(0.116)

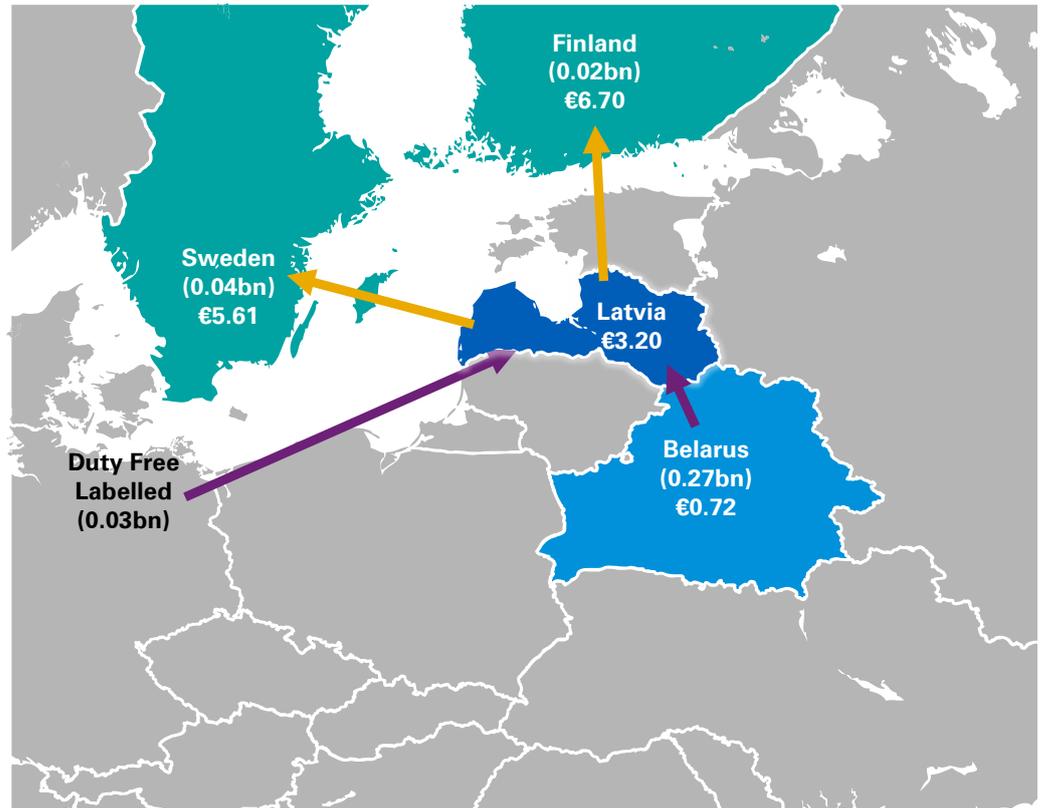
Note: The inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows
Source: KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

Key flows and C&C consumption patterns

Key inflows and outflows

- Latvia
- Source
- Destination
- Inflow
- Outflow

Label description:
Country (Inflow/
Outflow Volume)
WAP



C&C consumption by region^(a)

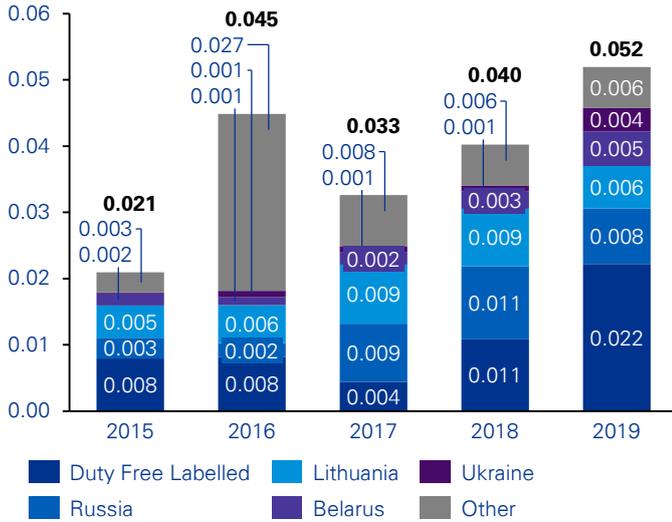


Note: (a) C&C scale is relative to this market and is not comparable with other markets in the study

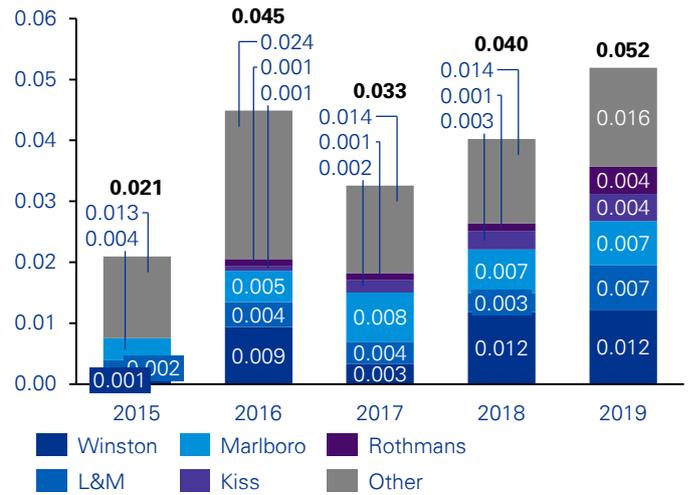
Source: (1) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

ND(L) and C&C flows

ND(L) by country of origin – 2015-2019 (bn cigarettes)

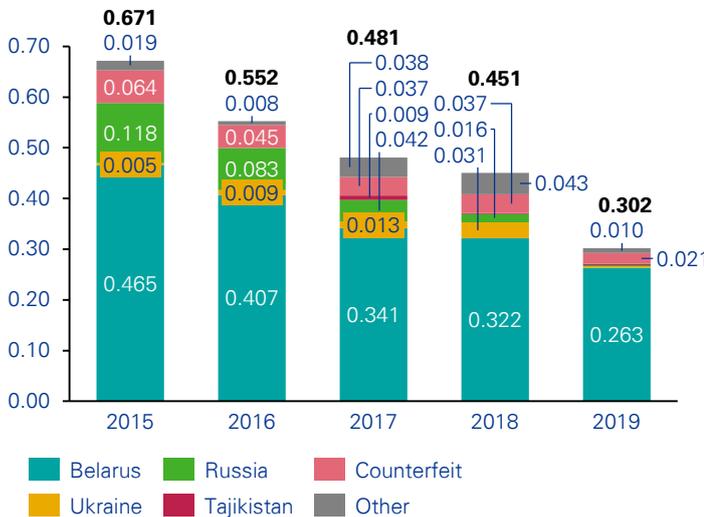


ND(L) by brand – 2015-2019 (bn cigarettes)

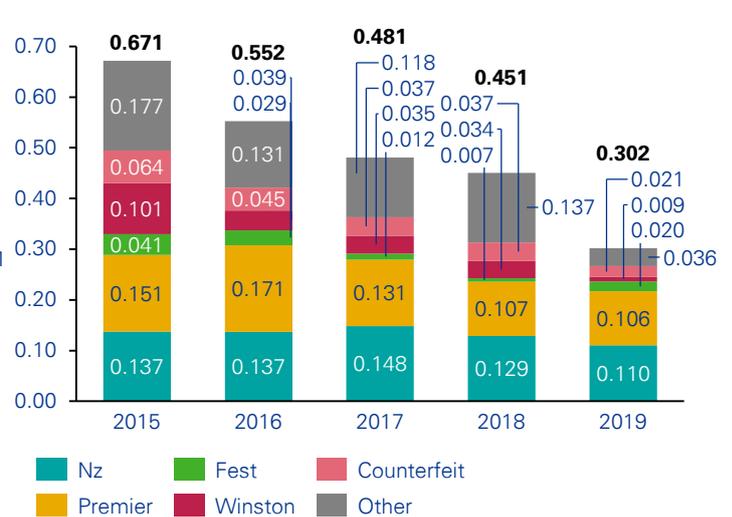


- The NZ and Premier brands, Illicit Whites from Belarus, made up two thirds of 2019 C&C flows
- The highest levels of C&C were detected in the Latgale region bordering Belarus and Russia

C&C by country of origin – 2015-2019 (bn cigarettes)



C&C by brand – 2015-2019 (bn cigarettes)



Source: (1) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section



KPMG

Lithuania





C&C cigarette consumption and total consumption

3.06bn

Cigarettes consumed



-0.01bn on 2018

0.54bn

C&C cigarettes consumed



+0.02bn on 2018

17.7%

Of total consumption was C&C



+0.68%pts on 2018

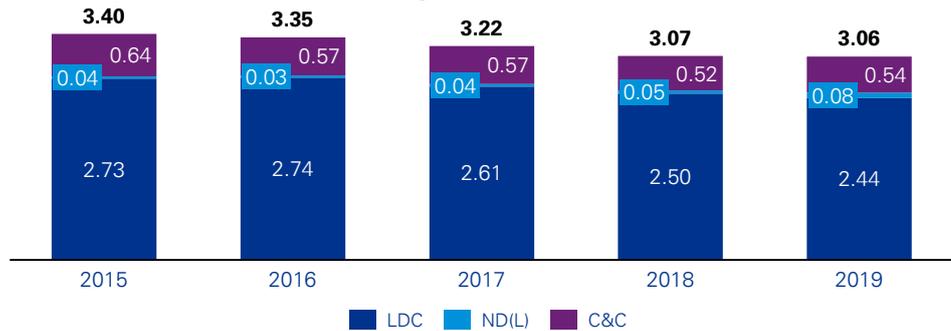
€68m

Total tax revenue lost from C&C



+€2m on 2018

Total consumption – 2015-2019 (bn cigarettes)



- C&C was 17.7% of cigarette consumption in 2019, and has remained relatively stable since 2016
- Total cigarette consumption also remained stable
- Illicit Whites were the largest element of C&C

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2015-2019



Breakdown of C&C consumption by type – 2015-2019 (bn cigarettes)



Note: C&C breakdown chart only includes counterfeit volumes related to brands of manufacturers who participate in the empty pack/yellow bag surveys. Total tax revenue lost represents estimated excise and VAT if C&C volumes had been consumed legally in the country of study

Source: KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2015-2019

Total Lithuania Consumption						
Billion cigarettes	2015	2016	2017	2018	2019	2018-19 (%)
Legal Domestic Sales (LDS)	3.17	3.13	2.94	2.79	2.68	(4%)
Outflows	(0.45)	(0.39)	(0.33)	(0.29)	(0.24)	(15%)
Legal Domestic Consumption (LDC)	2.73	2.74	2.61	2.50	2.44	(3%)
Non-Domestic Legal (ND(L))	0.04	0.03	0.04	0.05	0.08	71%
Counterfeit and Contraband (C&C)	0.64	0.57	0.57	0.52	0.54	4%
Total Non-Domestic	0.67	0.60	0.61	0.57	0.62	9%
Total Consumption	3.40	3.35	3.22	3.07	3.06	(0%)

— 80% of 2019 inflows originated from neighbouring Belarus. Given the size of the inflow to Lithuania and a low legal limit of 40 cigarettes per person when travelling across the border, the majority of this flow is considered illicit

Total inflows by country of origin – 2015-2019

Inflows to Lithuania					
Billion cigarettes	2015	2016	2017	2018	2019
Belarus	0.53	0.49	0.51	0.46	0.49
Duty Free Labelled	0.05	0.04	0.03	0.03	0.04
Other	0.10	0.08	0.07	0.08	0.10
Total Inflows	0.67	0.60	0.61	0.57	0.62

Total outflows by country of origin – 2015-2019

Outflows from Lithuania					
Billion cigarettes	2015	2016	2017	2018	2019
UK	(0.21)	(0.16)	(0.10)	(0.11)	(0.07)
Norway	(0.13)	(0.09)	(0.09)	(0.05)	(0.05)
Germany	(0.02)	(0.02)	(0.02)	(0.03)	(0.04)
Sweden	(0.00)	(0.01)	(0.01)	(0.00)	(0.02)
Ireland	(0.02)	(0.03)	(0.02)	(0.02)	(0.01)
Other	(0.06)	(0.08)	(0.08)	(0.07)	(0.05)
Total Outflows	(0.45)	(0.39)	(0.33)	(0.29)	(0.24)

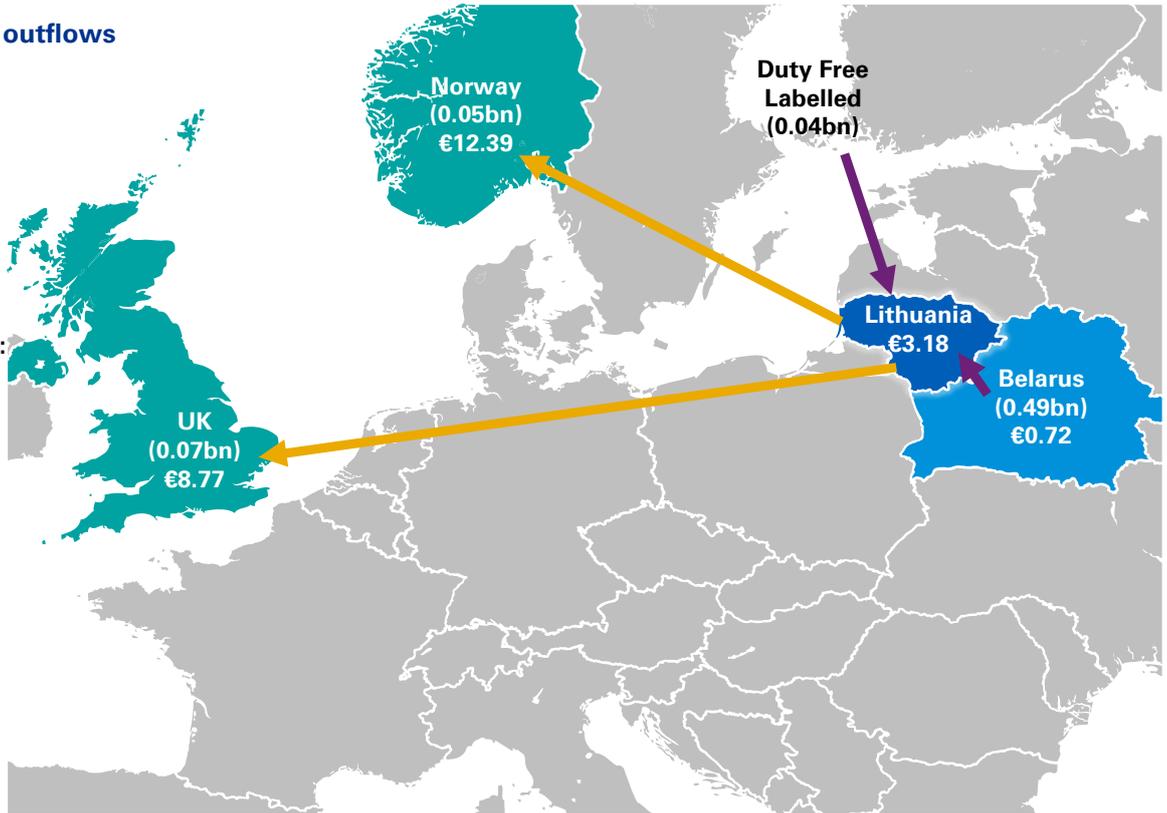
Note: The inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows
Source: KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

Key flows and C&C consumption patterns

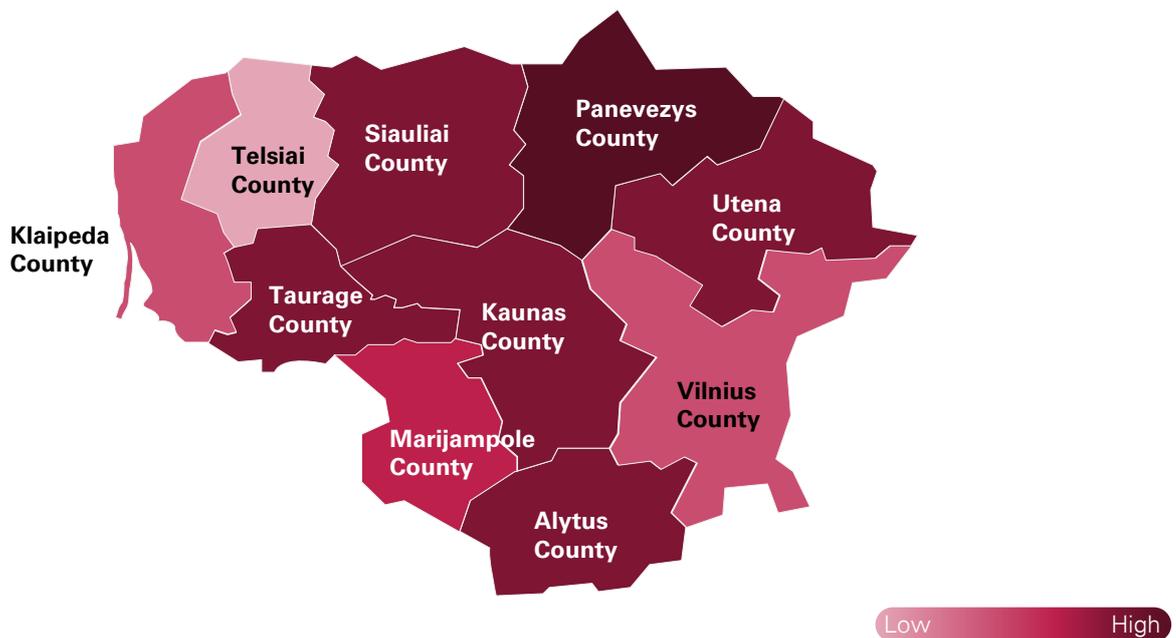
Key inflows and outflows

- Lithuania
- Source
- Destination
- Inflow
- Outflow

Label description:
Country (Inflow/
Outflow Volume)
WAP



C&C consumption by region^(a)

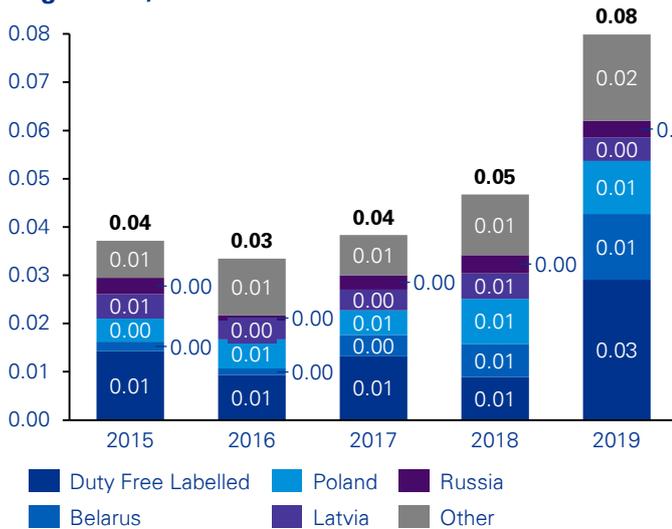


Note: (a) C&C scale is relative to this market and is not comparable with other markets in the study

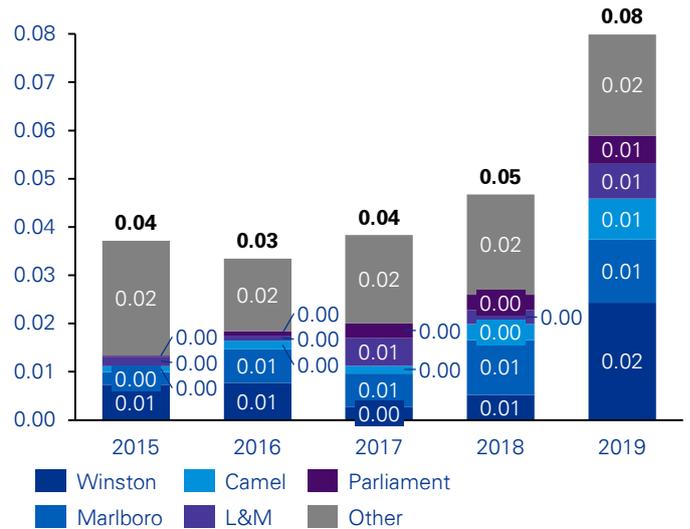
Source: (1) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

ND(L) and C&C flows

ND(L) by country of origin – 2015-2019 (bn cigarettes)

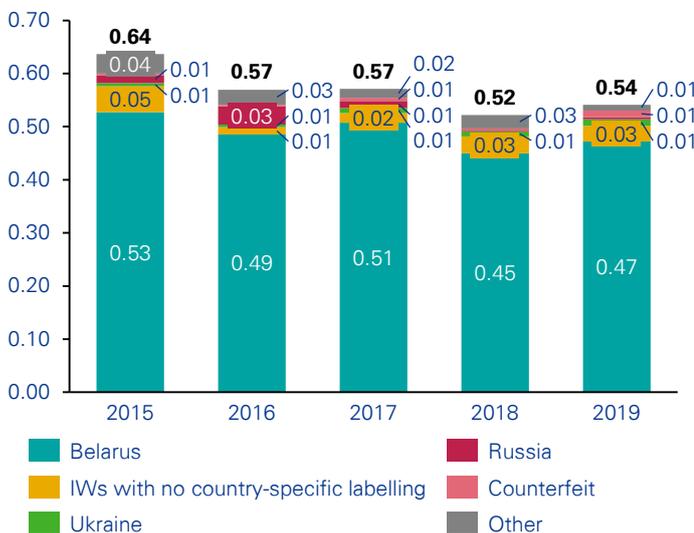


ND(L) by brand – 2015-2019 (bn cigarettes)

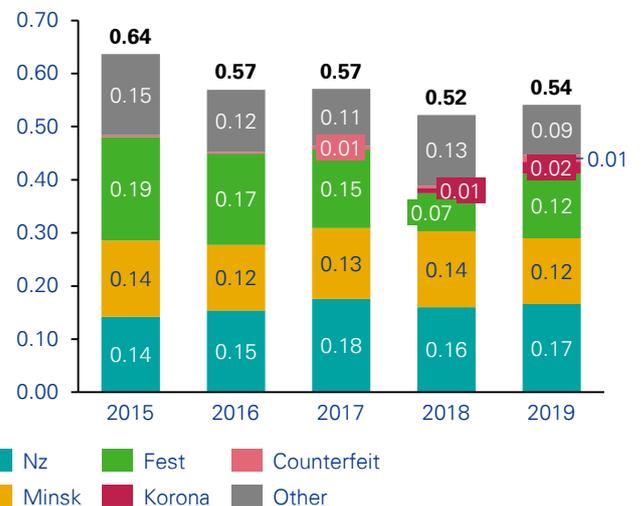


- Non-domestic legal inflow increases were driven by Duty Free Labelled
- Illicit White flows made up 89% of 2019 C&C, the majority of which originated from Belarus
- The most prevalent Illicit Whites brand flows were NZ, Minsk and Fest

C&C by country of origin – 2015-2019 (bn cigarettes)



C&C by brand – 2015-2019 (bn cigarettes)



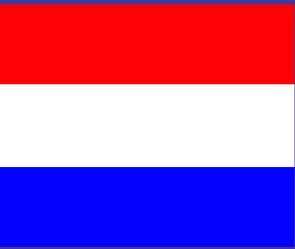
Source: (1) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section



KPMG

Luxembourg





C&C cigarette consumption and total consumption

0.5bn

Cigarettes consumed



-0.06bn on 2018

0.0bn

C&C cigarettes consumed



+0.01bn on 2018

2.2%

Of total consumption was C&C



+1.20%pts on 2018

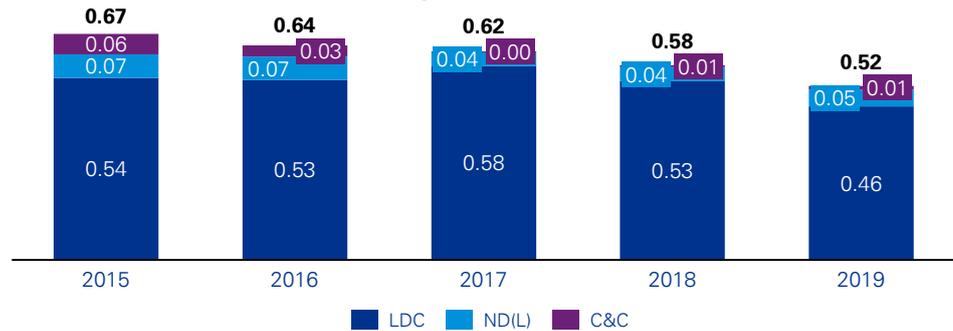
€2m

Total tax revenue lost from C&C



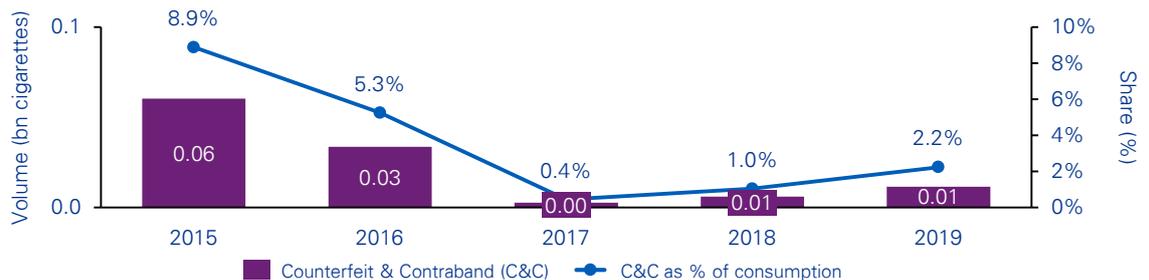
+€1m on 2018

Total consumption – 2015-2019 (bn cigarettes)

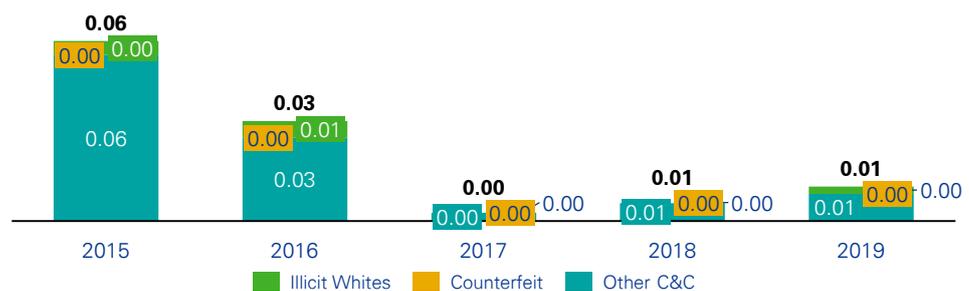


- Luxembourg continues to have the lowest level of C&C in the study, 2.2%, indicative of its low price point compared to neighbouring markets, and its small size reducing its attractiveness for smugglers
- Total consumption continued its long term decline in 2019. This was alongside an increase in outflows to neighbouring and nearby markets

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2015-2019



Breakdown of C&C consumption by type – 2015-2019 (bn cigarettes)



Note: C&C breakdown chart only includes counterfeit volumes related to brands of manufacturers who participate in the empty pack/yellow bag surveys. Total tax revenue lost represents estimated excise and VAT if C&C volumes had been consumed legally in the country of study

Source: KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2015-2019

Total Luxembourg Consumption						
Billion cigarettes	2015	2016	2017	2018	2019	2018-19 (%)
Legal Domestic Sales (LDS)	2.84	2.81	2.90	3.00	3.31	10%
Outflows	(2.30)	(2.28)	(2.32)	(2.47)	(2.85)	15%
Legal Domestic Consumption (LDC)	0.54	0.53	0.58	0.53	0.46	(14%)
Non-Domestic Legal (ND(L))	0.07	0.07	0.04	0.04	0.05	19%
Counterfeit and Contraband (C&C)	0.06	0.03	0.00	0.01	0.01	93%
Total Non-Domestic	0.14	0.10	0.04	0.05	0.06	29%
Total Consumption	0.68	0.64	0.62	0.58	0.52	(11%)

— France remains the largest outflow and is the highest-priced country neighbouring Luxembourg

Total inflows by country of origin – 2015-2019

Inflows to Luxembourg						
Billion cigarettes	2015	2016	2017	2018	2019	
Belgium	0.02	0.01	0.01	0.01	0.02	
France	0.02	0.01	0.01	0.01	0.01	
Duty Free Labelled	0.02	0.01	0.00	0.01	0.01	
Germany	0.01	0.01	0.01	0.01	0.01	
Other	0.07	0.06	0.02	0.01	0.02	
Total Inflows	0.14	0.10	0.04	0.05	0.06	

Total outflows by country of origin – 2015-2019

Outflows from Luxembourg						
Billion cigarettes	2015	2016	2017	2018	2019	
France	(0.93)	(0.84)	(1.09)	(1.15)	(1.26)	
Germany	(0.31)	(0.48)	(0.34)	(0.33)	(0.35)	
Other	(1.06)	(0.96)	(0.90)	(0.98)	(1.24)	
Total Outflows	(2.30)	(2.28)	(2.32)	(2.47)	(2.85)	

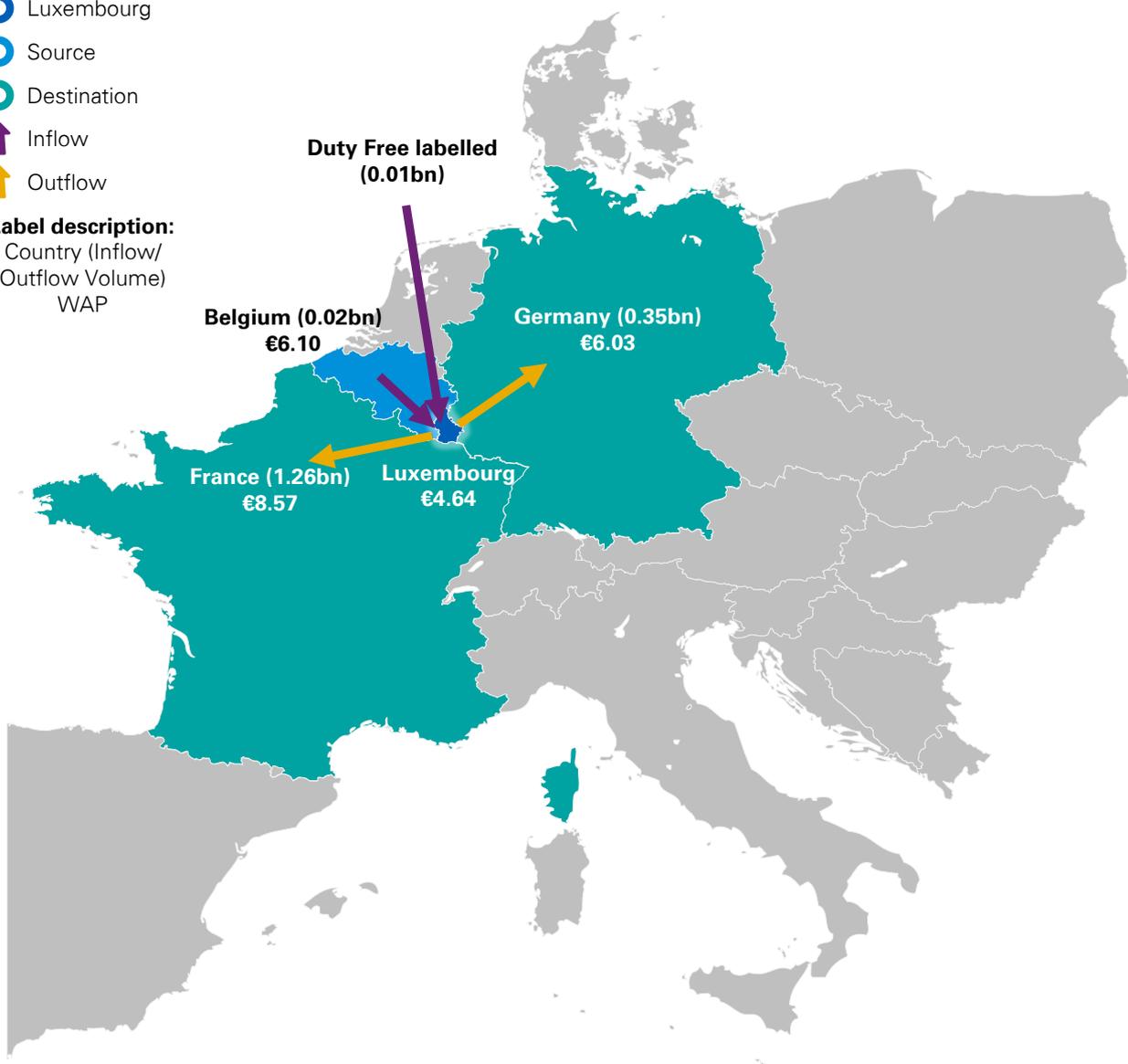
Note: The inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows
 Source: KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

Key flows and C&C consumption patterns

Key inflows and outflows

- Luxembourg
- Source
- Destination
- Inflow
- Outflow

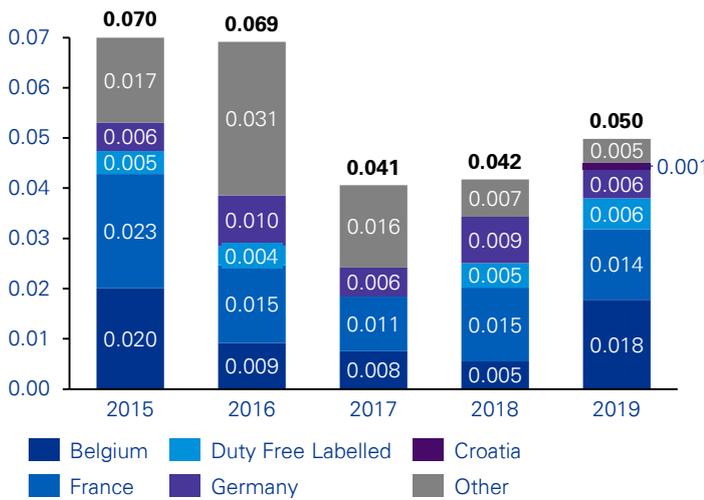
Label description:
Country (Inflow/
Outflow Volume)
WAP



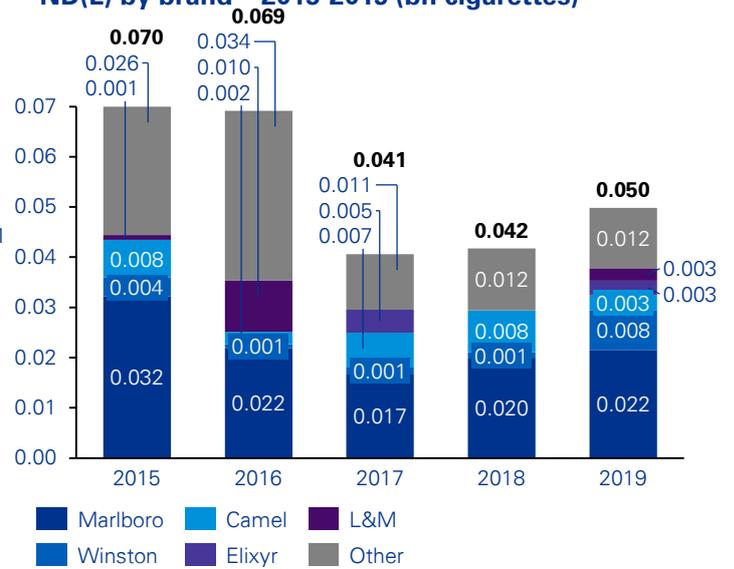
Source: (1) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

ND(L) and C&C flows

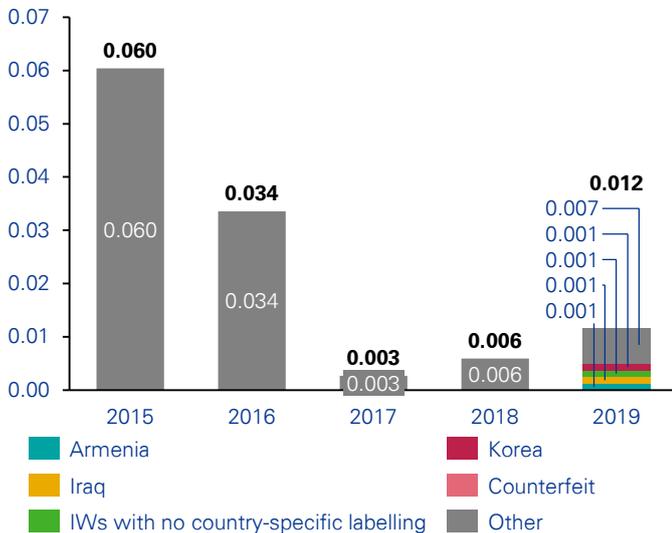
ND(L) by country of origin – 2015-2019 (bn cigarettes)



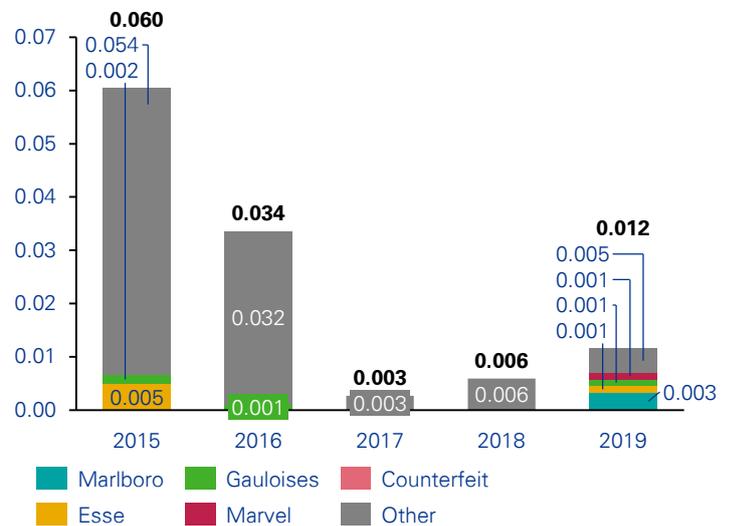
ND(L) by brand – 2015-2019 (bn cigarettes)



C&C by country of origin – 2015-2019 (bn cigarettes)



C&C by brand – 2015-2019 (bn cigarettes)

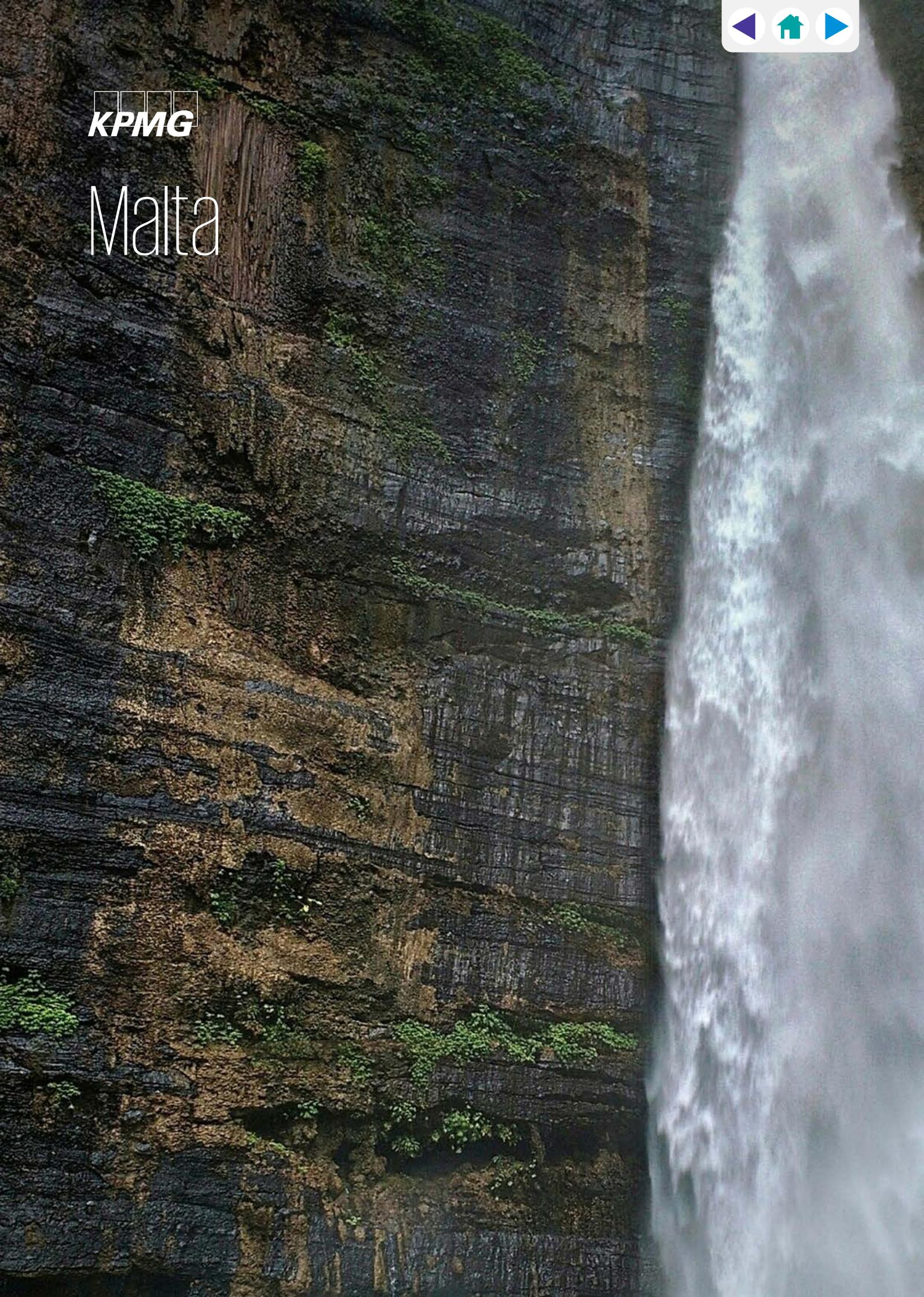


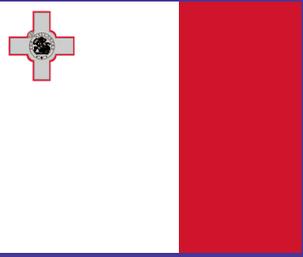
Source: (1) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section



KPMG

Malta





C&C cigarette consumption and total consumption

0.6bn

Cigarettes consumed



-0.01bn on 2018

0.0bn

C&C cigarettes consumed



-0.01bn on 2018

7.9%

Of total consumption was C&C



-1.81%pts on 2018

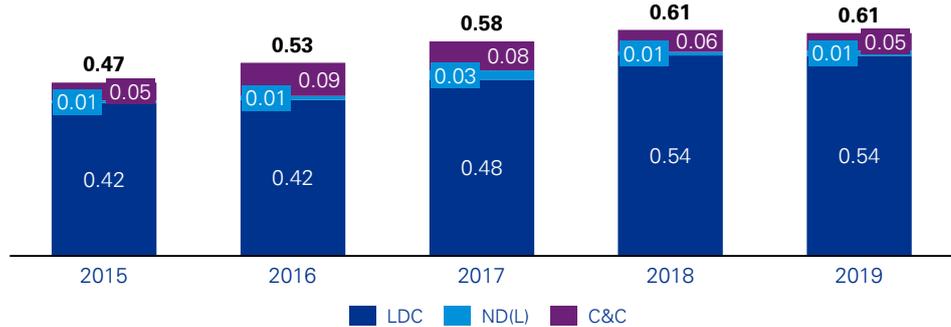
€10m

Total tax revenue lost from C&C



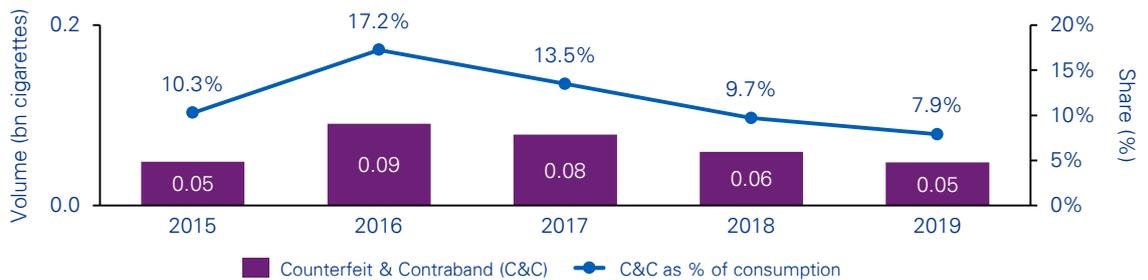
-€2m on 2018

Total consumption – 2015-2019 (bn cigarettes)

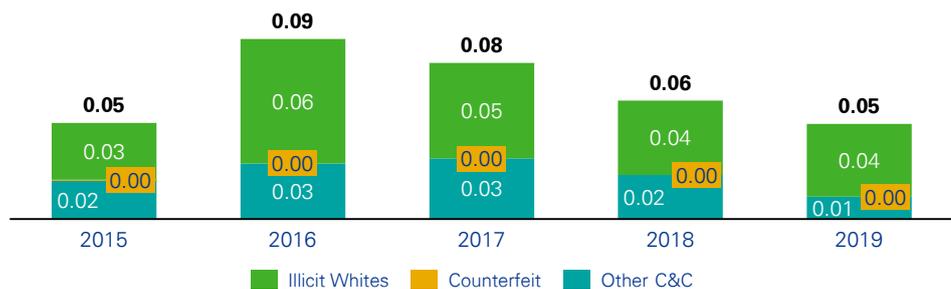


- C&C was 7.9% of total cigarette consumption in 2019, continuing the decline seen since 2016
- Total cigarette consumption remained stable in 2019

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2015-2019



Breakdown of C&C consumption by type – 2015-2019 (bn cigarettes)



Note: C&C breakdown chart only includes counterfeit volumes related to brands of manufacturers who participate in the empty pack/yellow bag surveys. Total tax revenue lost represents estimated excise and VAT if C&C volumes had been consumed legally in the country of study

Source: KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2015-2019

Total Malta Consumption						
Billion cigarettes	2015	2016	2017	2018	2019	2018-19 (%)
Legal Domestic Sales (LDS)	0.47	0.46	0.51	0.59	0.58	(3%)
Outflows	(0.05)	(0.03)	(0.03)	(0.05)	(0.03)	(32%)
Legal Domestic Consumption (LDC)	0.42	0.42	0.48	0.54	0.54	(0%)
Non-Domestic Legal (ND(L))	0.01	0.01	0.03	0.01	0.01	36%
Counterfeit and Contraband (C&C)	0.05	0.09	0.08	0.06	0.05	(20%)
Total Non-Domestic	0.06	0.10	0.10	0.07	0.06	(12%)
Total Consumption	0.47	0.53	0.58	0.61	0.61	(1%)

— Illicit Whites with no country-specific labelling remained the main source of inflows, and of illicit consumption

Total inflows by country of origin – 2015-2019

Inflows to Malta					
Billion cigarettes	2015	2016	2017	2018	2019
IWs with no country-specific labelling	0.03	0.06	0.05	0.04	0.03
Duty Free Labelled	0.01	0.02	0.02	0.01	0.01
Bulgaria	0.00	0.00	0.00	0.00	0.00
Italy	0.00	0.00	0.01	0.00	0.00
Other	0.02	0.01	0.04	0.02	0.02
Total Inflows	0.06	0.10	0.10	0.07	0.06

Total outflows by country of origin – 2015-2019

Outflows from Malta					
Billion cigarettes	2015	2016	2017	2018	2019
France	(0.01)	(0.01)	(0.01)	(0.01)	(0.02)
UK	(0.02)	(0.01)	(0.01)	(0.01)	(0.00)
Other	(0.03)	(0.02)	(0.01)	(0.03)	(0.01)
Total Outflows	(0.05)	(0.03)	(0.03)	(0.05)	(0.03)

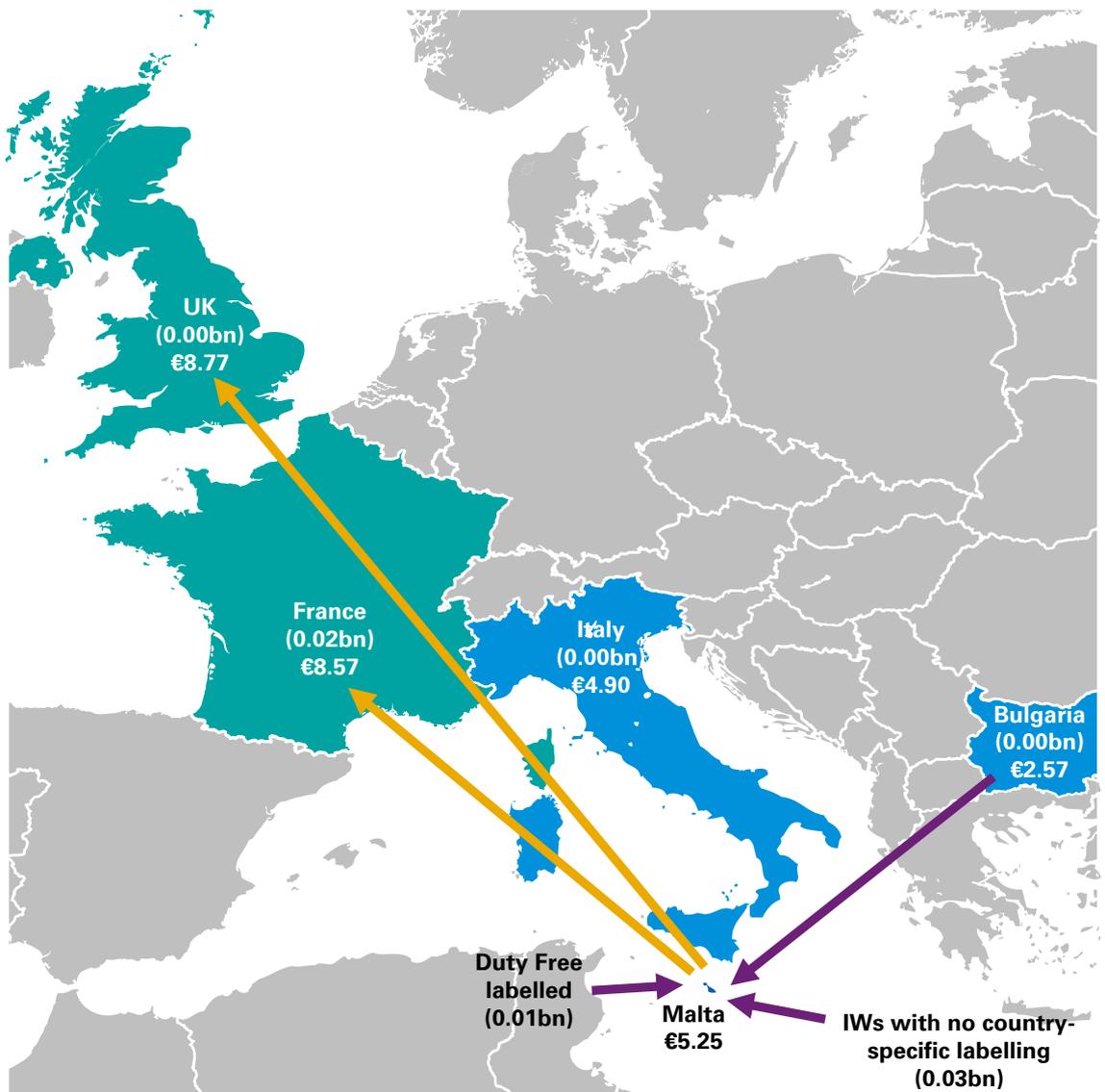
Note: The inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows
 Source: KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

Key flows and C&C consumption patterns

Key inflows and outflows

- Malta
- Source
- Destination
- Inflow
- Outflow

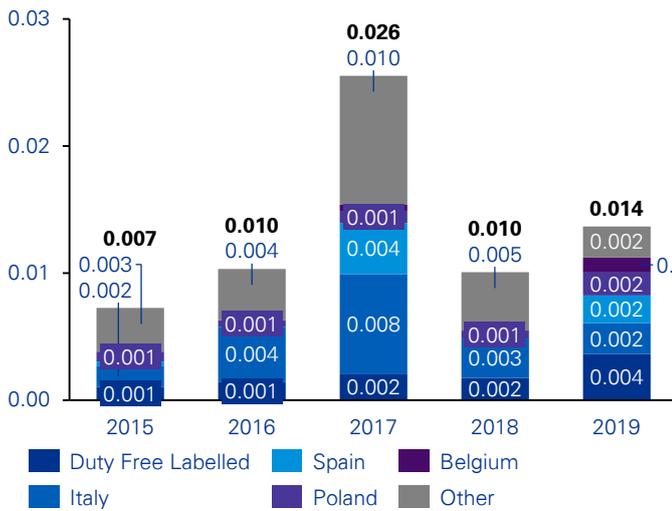
Label description:
Country (Inflow/
Outflow Volume)
WAP



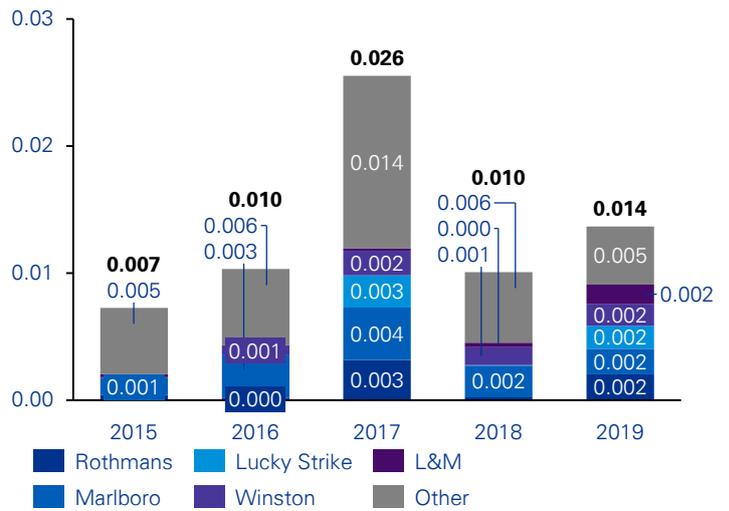
Source: (1) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

ND(L) and C&C flows

ND(L) by country of origin – 2015-2019 (bn cigarettes)

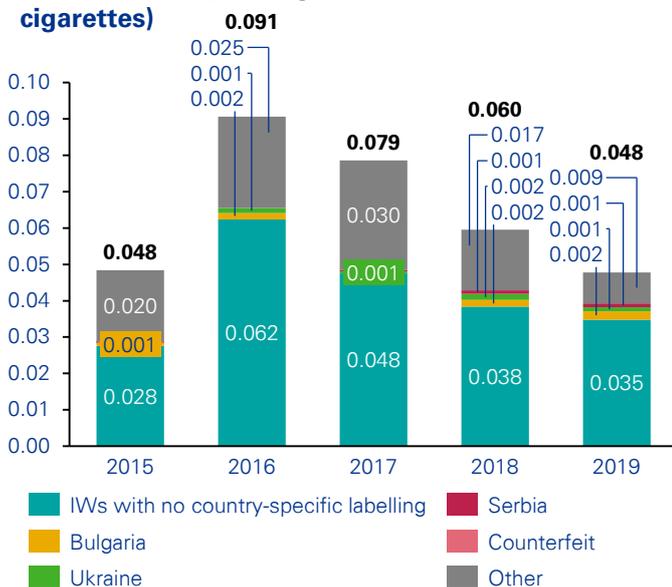


ND(L) by brand – 2015-2019 (bn cigarettes)

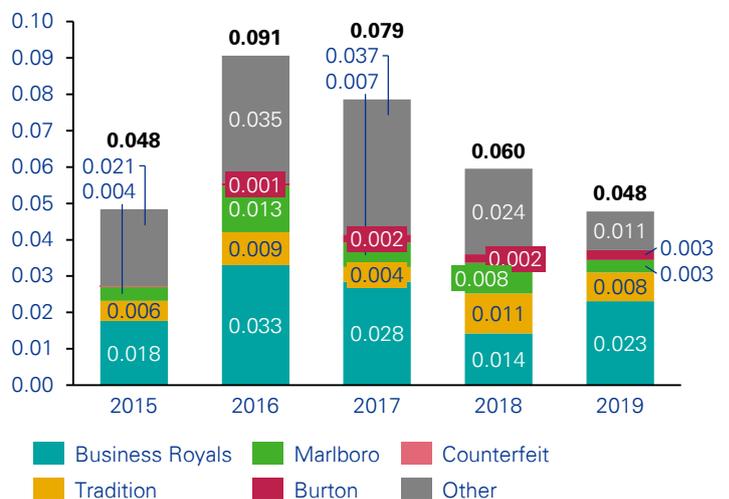


— Illicit Whites flows were main source of C&C

C&C by country of origin – 2015-2019 (bn cigarettes)



C&C by brand – 2015-2019 (bn cigarettes)



Source: (1) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section



KPMG

Netherlands



C&C cigarette consumption and total consumption

11.8bn

Cigarettes consumed



-0.09bn on 2018

0.6bn

C&C cigarettes consumed



-0.00bn on 2018

5.4%

Of total consumption was C&C



-0.00%pts on 2018

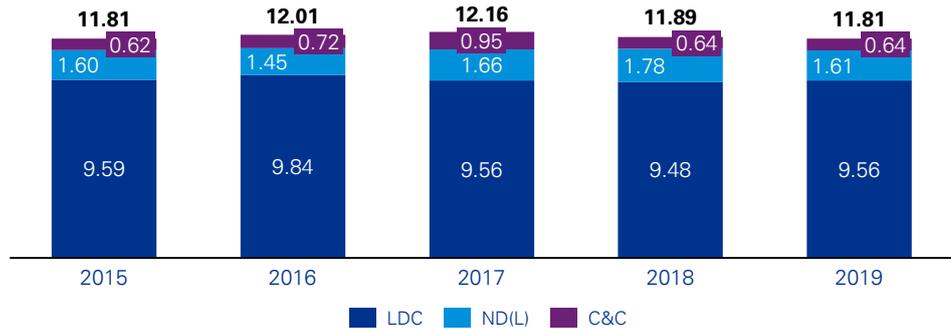
€155m

Total tax revenue lost from C&C



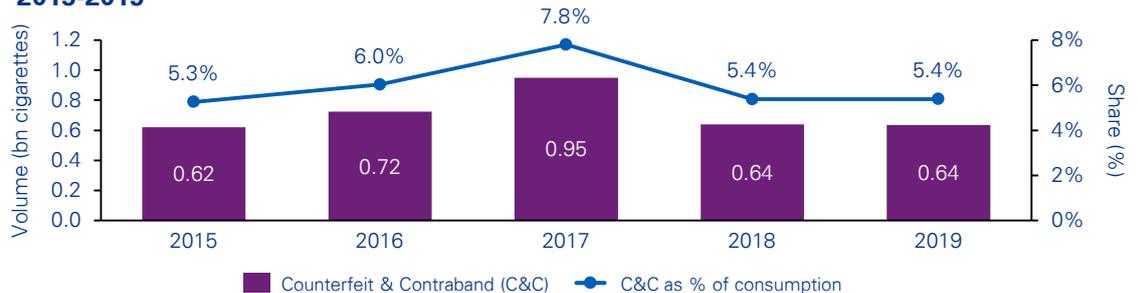
-€0m on 2018

Total consumption – 2015-2019 (bn cigarettes)

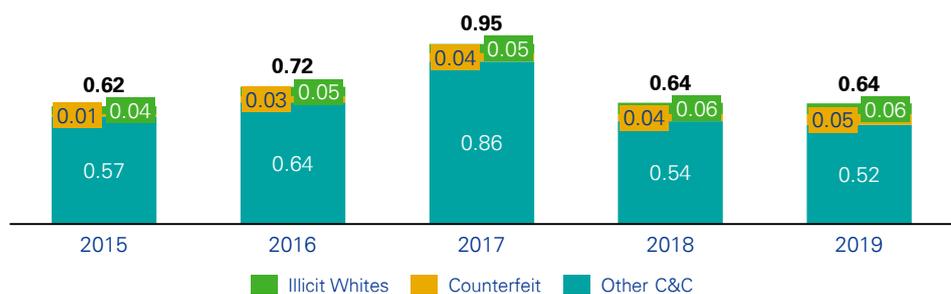


- C&C remained stable at 5.4% of total consumption in 2019
- Total consumption declined marginally to 11.8bn cigarettes

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2015-2019



Breakdown of C&C consumption by type – 2015-2019 (bn cigarettes)



Note: C&C breakdown chart only includes counterfeit volumes related to brands of manufacturers who participate in the empty pack/yellow bag surveys. Total tax revenue lost represents estimated excise and VAT if C&C volumes had been consumed legally in the country of study

Source: KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2015-2019

Total Netherlands Consumption						
Billion cigarettes	2015	2016	2017	2018	2019	2018-19 (%)
Legal Domestic Sales (LDS)	9.97	10.14	9.89	9.92	9.84	(1%)
Outflows	(0.38)	(0.30)	(0.33)	(0.45)	(0.29)	(36%)
Legal Domestic Consumption (LDC)	9.59	9.84	9.56	9.48	9.56	1%
Non-Domestic Legal (ND(L))	1.60	1.45	1.66	1.78	1.61	(9%)
Counterfeit and Contraband (C&C)	0.62	0.72	0.95	0.64	0.64	(1%)
Total Non-Domestic	2.22	2.17	2.61	2.42	2.25	(7%)
Total Consumption	11.81	12.01	12.16	11.89	11.81	(1%)

- The neighbouring lower-priced markets of Germany and Belgium are the main source of country-specific inflows. Due to the high number of travellers to and from the Netherlands these flows are considered predominately legal
- Due to the relatively high price of cigarettes in the Netherlands, outflows are low

Total inflows by country of origin – 2015-2019

Inflows to Netherlands						
Billion cigarettes	2015	2016	2017	2018	2019	
Germany	0.27	0.20	0.26	0.35	0.38	
Duty Free Labelled	0.43	0.43	0.48	0.37	0.35	
Belgium	0.29	0.37	0.15	0.18	0.21	
Spain	0.07	0.06	0.13	0.09	0.12	
Luxembourg	0.04	0.04	0.03	0.04	0.11	
Other	1.12	1.09	1.56	1.38	1.08	
Total Inflows	2.22	2.17	2.61	2.42	2.25	

Total outflows by country of origin – 2015-2019

Outflows from Netherlands						
Billion cigarettes	2015	2016	2017	2018	2019	
Germany	(0.08)	(0.10)	(0.08)	(0.08)	(0.08)	
Belgium	(0.10)	(0.06)	(0.04)	(0.20)	(0.07)	
France	(0.08)	(0.04)	(0.05)	(0.05)	(0.04)	
Ireland	(0.01)	(0.02)	(0.04)	(0.01)	(0.04)	
Other	(0.11)	(0.09)	(0.13)	(0.11)	(0.05)	
Total Outflows	(0.38)	(0.30)	(0.33)	(0.45)	(0.29)	

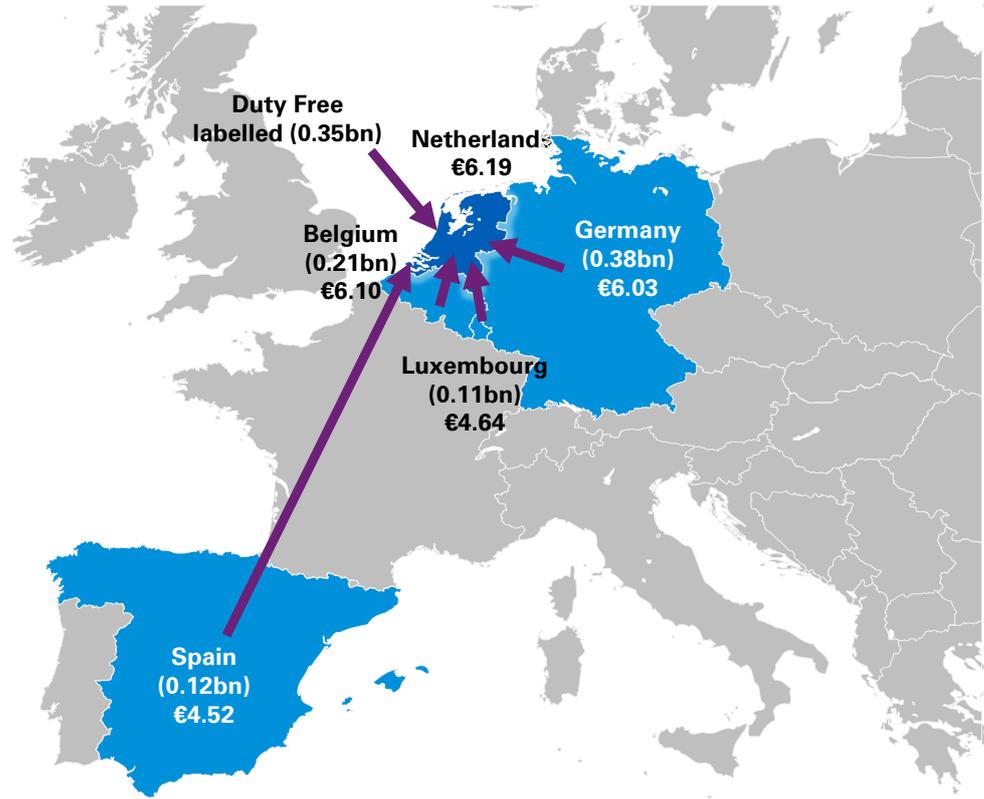
Note: The inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows
 Source: KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

Key flows and C&C consumption patterns

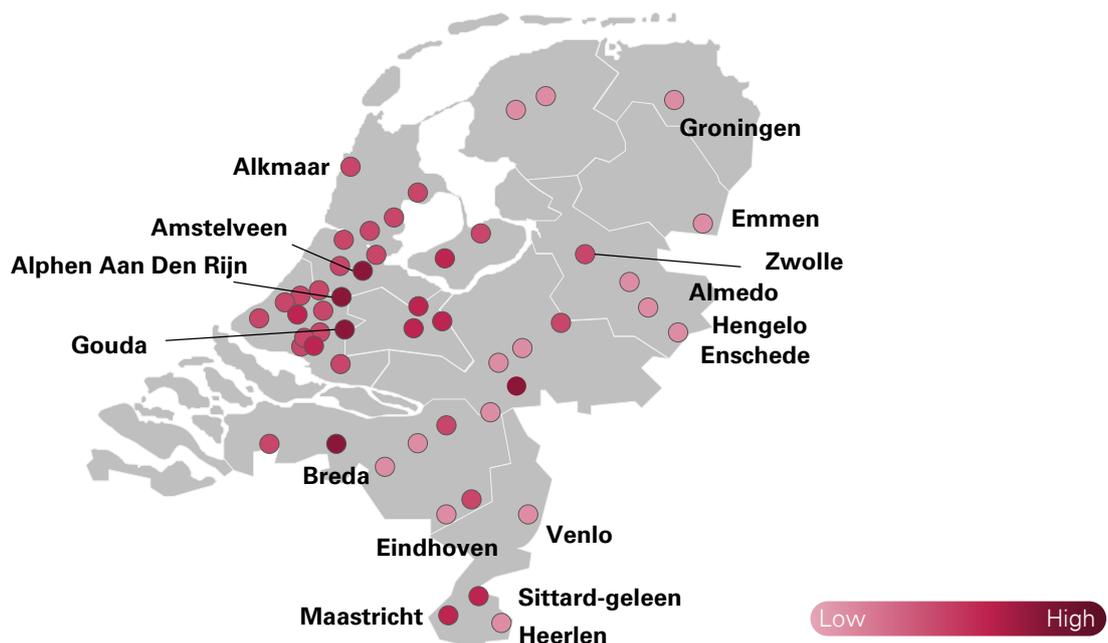
Key inflows and outflows

- Netherlands
- Source
- Destination
- ↑ Inflow
- ↑ Outflow

Label description:
Country (Inflow/
Outflow Volume)
WAP



C&C consumption by region^(a)

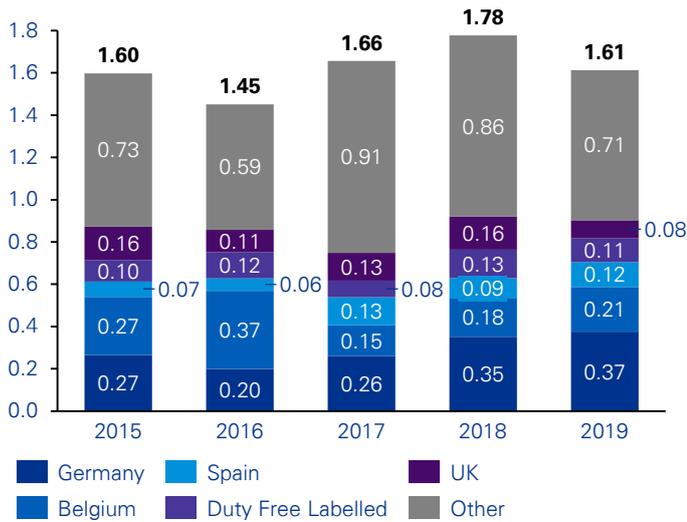


Note: (a) C&C scale is relative to this market and is not comparable with other markets in the study

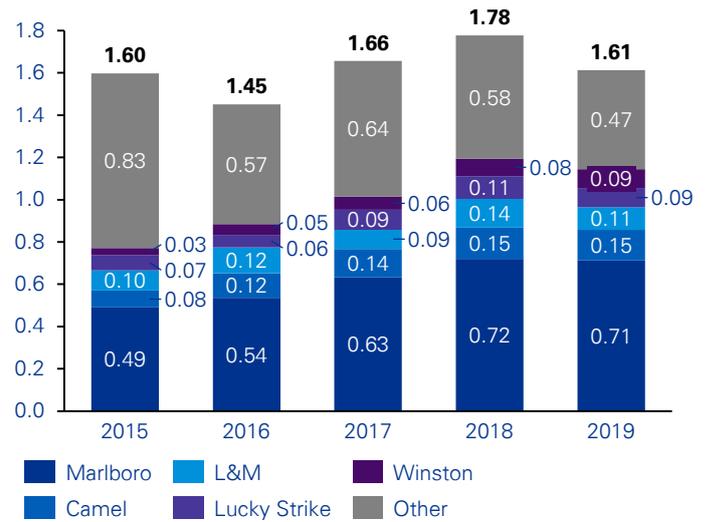
Source: (1) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

ND(L) and C&C flows

ND(L) by country of origin – 2015-2019 (bn cigarettes)

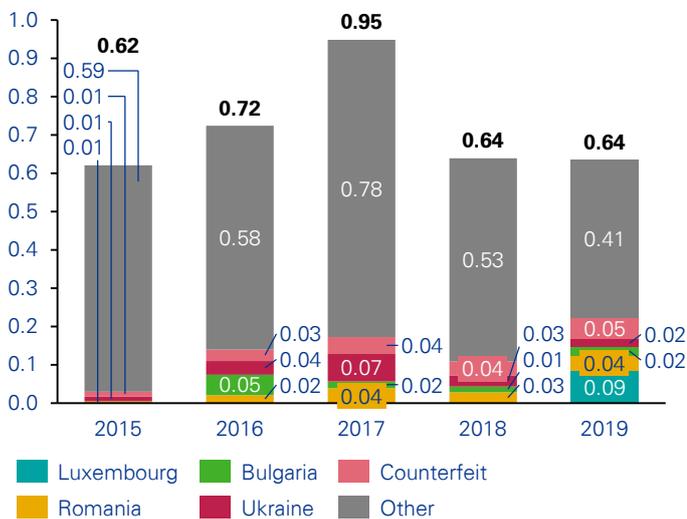


ND(L) by brand – 2015-2019 (bn cigarettes)

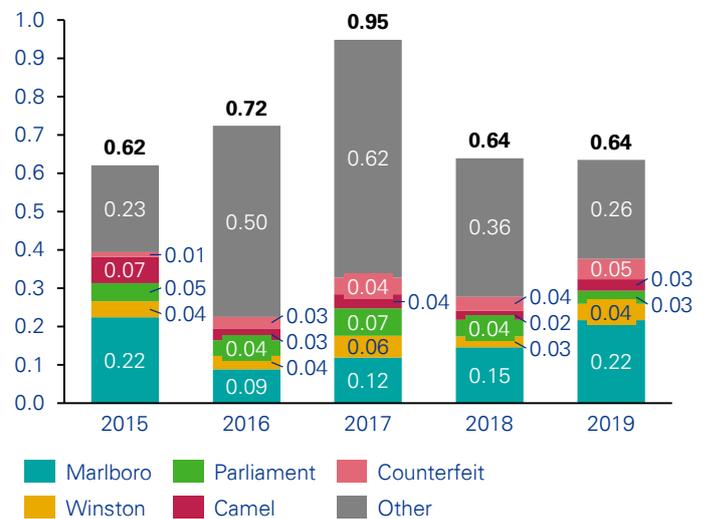


— The highest levels of C&C in 2019 were recorded in the west of the country

C&C by country of origin – 2015-2019 (bn cigarettes)



C&C by brand – 2015-2019 (bn cigarettes)

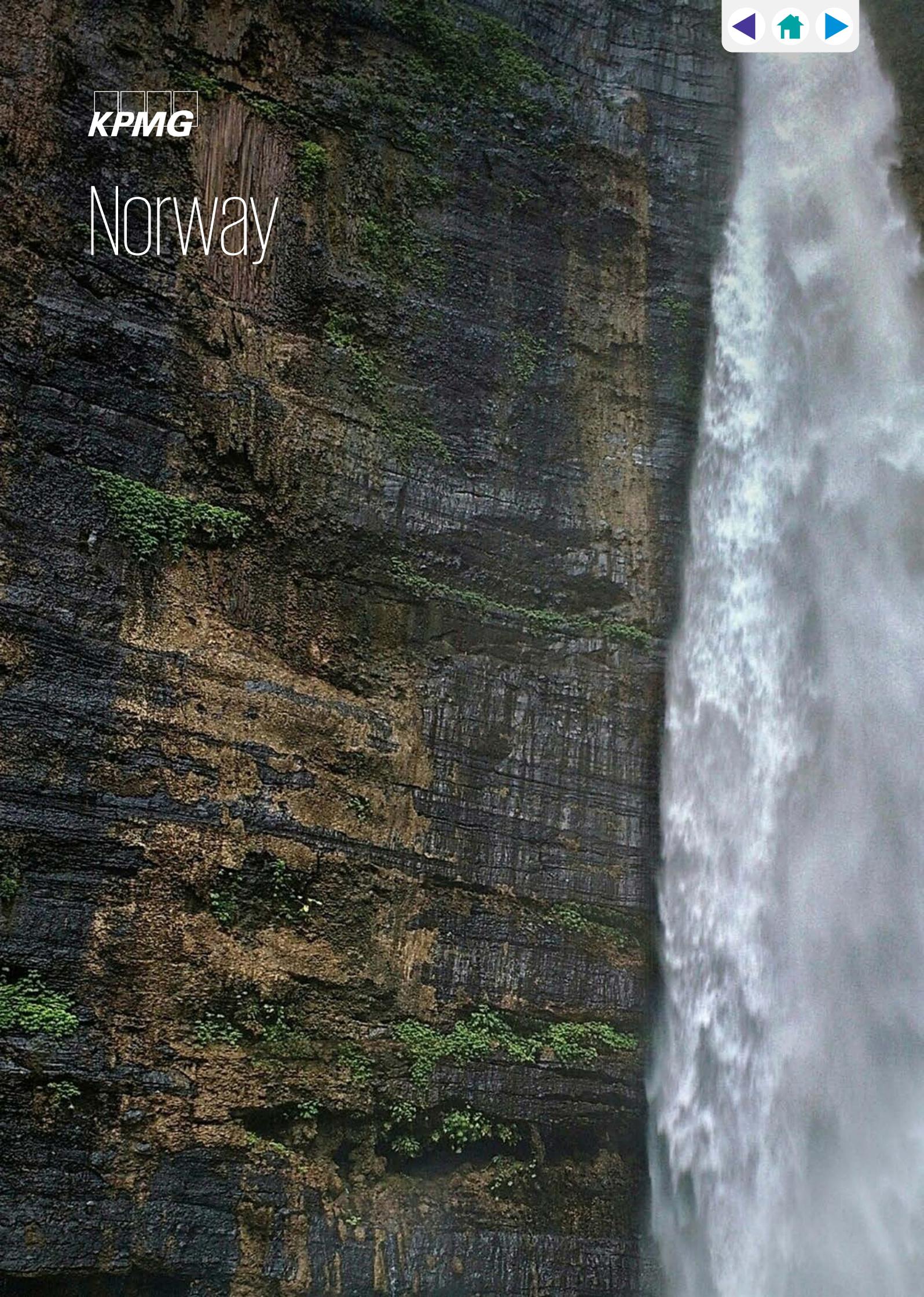


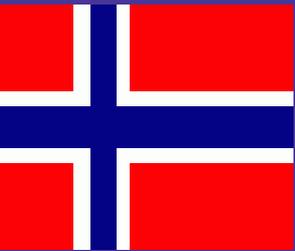
Source: (1) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section



KPMG

Norway





C&C cigarette consumption and total consumption

2.2bn

Cigarettes consumed



-0.21bn on 2018

0.3bn

C&C cigarettes consumed



-0.08bn on 2018

14.0%

Of total consumption was C&C



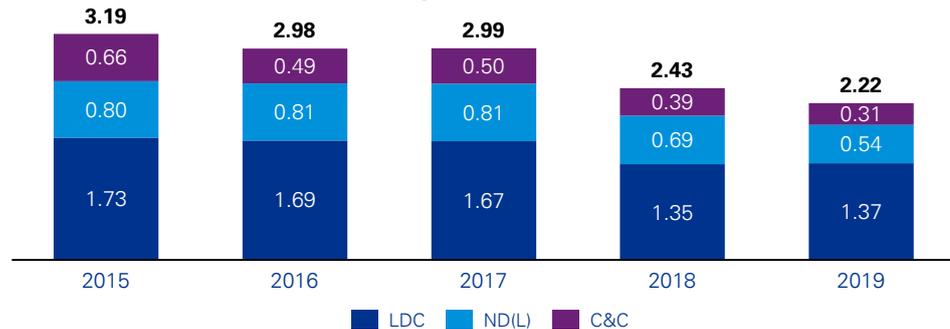
-2.05%pts on 2018

€130m

(NOK1,313m)⁽¹⁾

Total tax revenue lost from C&C

Total consumption – 2015-2019 (bn cigarettes)



- C&C declined to 14.0% of cigarette consumption in 2019
- Total cigarette consumption continued its long term decline, driven by decreased non-domestic inflows

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2015-2019



Breakdown of C&C consumption by type – 2015-2019 (bn cigarettes)



Note: C&C breakdown chart only includes counterfeit volumes related to brands of manufacturers who participate in the empty pack/yellow bag surveys. Total tax revenue lost represents estimated excise and VAT if C&C volumes had been consumed legally in the country of study

Source: (1) EUR 1 = NOK 10.11, InforEuro, European Commission, December 2019; (2) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

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Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2015-2019

Total Norway Consumption						
Billion cigarettes	2015	2016	2017	2018	2019	2018-19 (%)
Legal Domestic Sales (LDS)	1.77	1.72	1.72	1.39	1.41	2%
Outflows	(0.05)	(0.04)	(0.05)	(0.03)	(0.04)	17%
Legal Domestic Consumption (LDC)	1.73	1.69	1.67	1.35	1.37	1%
Non-Domestic Legal (ND(L))	0.80	0.81	0.81	0.69	0.54	(22%)
Counterfeit and Contraband (C&C)	0.66	0.49	0.50	0.39	0.31	(20%)
Total Non-Domestic	1.46	1.30	1.31	1.08	0.85	(21%)
Total Consumption	3.19	2.98	2.99	2.43	2.22	(9%)

- Duty Free and neighbouring Sweden remain the largest sources of non-domestic inflows, albeit declining. As Norway is not in the EU, travellers can purchase Duty Free when crossing the EU border
- As a high-priced market, outflows from Norway are low

Total inflows by country of origin – 2015-2019

Inflows to Norway						
Billion cigarettes	2015	2016	2017	2018	2019	
Duty Free Labelled	0.41	0.40	0.40	0.34	0.28	
Sweden	0.37	0.30	0.31	0.21	0.16	
Counterfeit	0.07	0.05	0.05	0.08	0.08	
Poland	0.09	0.07	0.09	0.09	0.06	
Lithuania	0.13	0.09	0.09	0.05	0.05	
Other	0.38	0.39	0.38	0.31	0.20	
Total Inflows	1.46	1.30	1.31	1.08	0.85	

Total outflows by country of origin – 2015-2019

Outflows from Norway						
Billion cigarettes	2015	2016	2017	2018	2019	
Denmark	(0.00)	(0.00)	(0.00)	(0.00)	(0.01)	
Ireland	(0.00)	(0.00)	(0.00)	0.00	(0.01)	
Other	(0.04)	(0.03)	(0.04)	(0.03)	(0.02)	
Total Outflows	(0.05)	(0.04)	(0.05)	(0.03)	(0.04)	

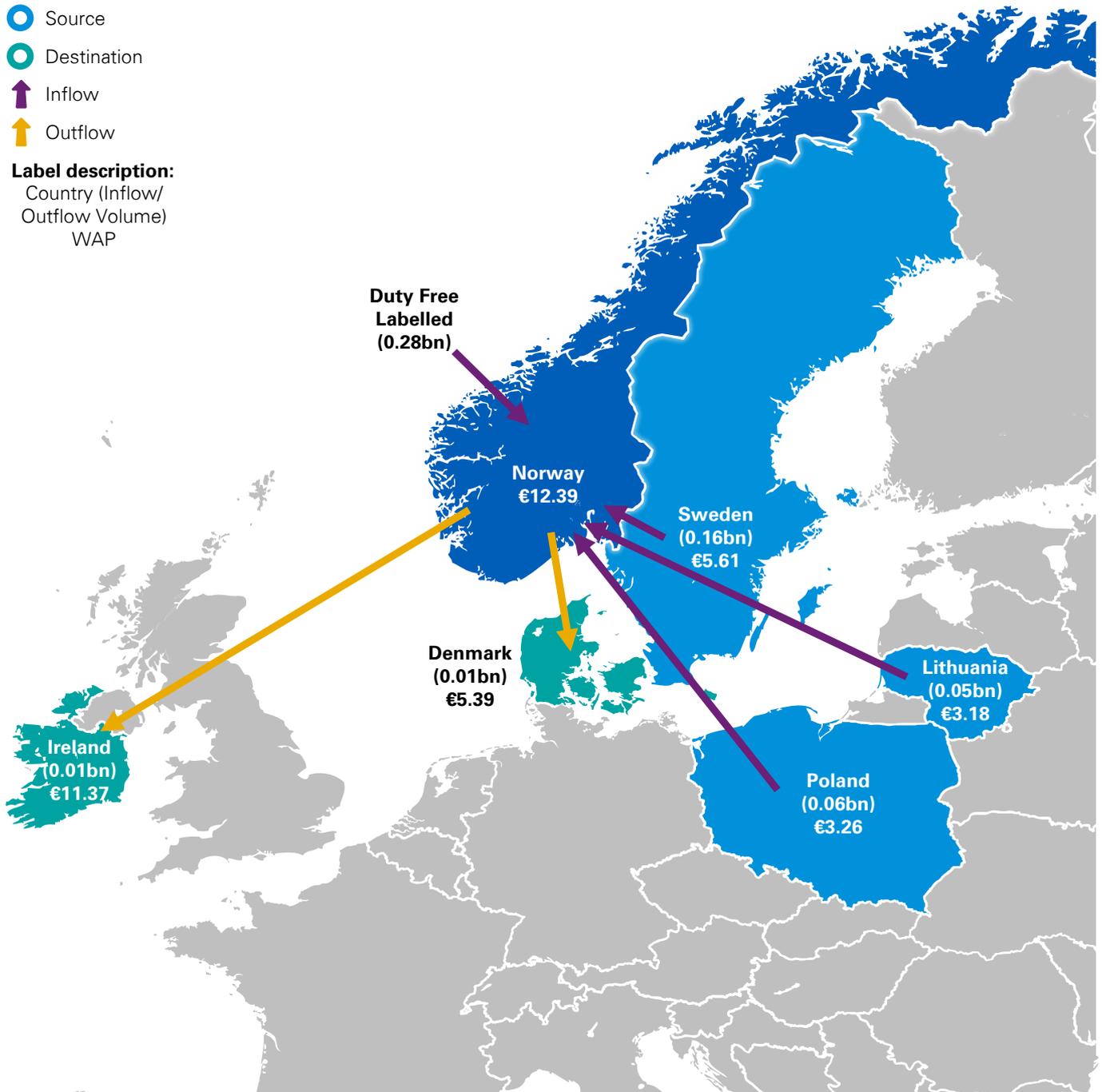
Note: The inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows
 Source: KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

Key flows and C&C consumption patterns

Key inflows and outflows

- Norway
- Source
- Destination
- Inflow
- Outflow

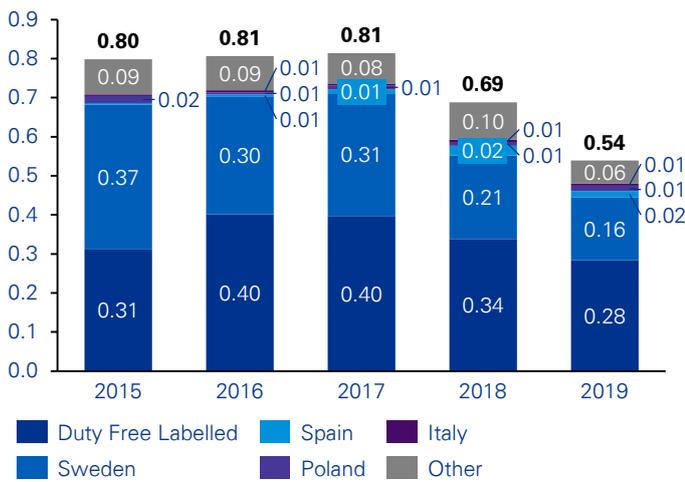
Label description:
Country (Inflow/
Outflow Volume)
WAP



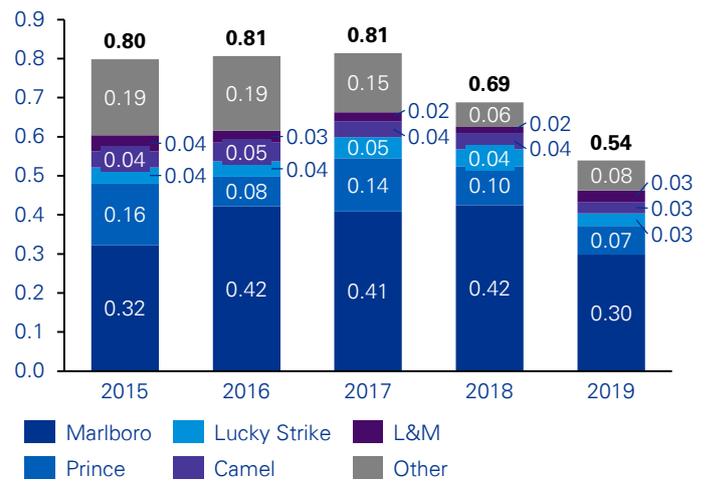
Source: (1) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

ND(L) and C&C flows

ND(L) by country of origin – 2015-2019 (bn cigarettes)

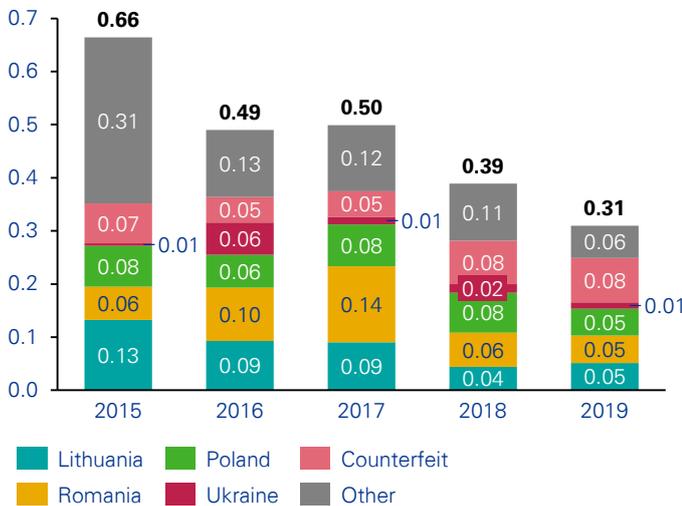


ND(L) by brand – 2015-2019 (bn cigarettes)

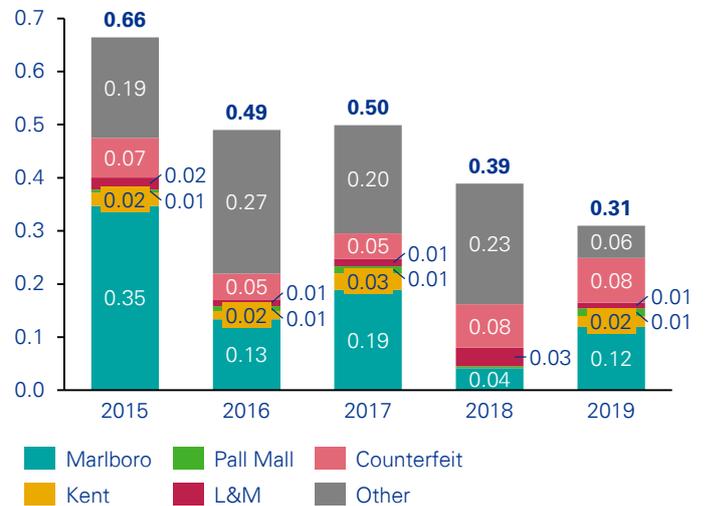


— Declining inflows from Duty Free Labelled and Sweden, which are considered predominately legal, are driving declining non-domestic legal flows

C&C by country of origin – 2015-2019 (bn cigarettes)



C&C by brand – 2015-2019 (bn cigarettes)

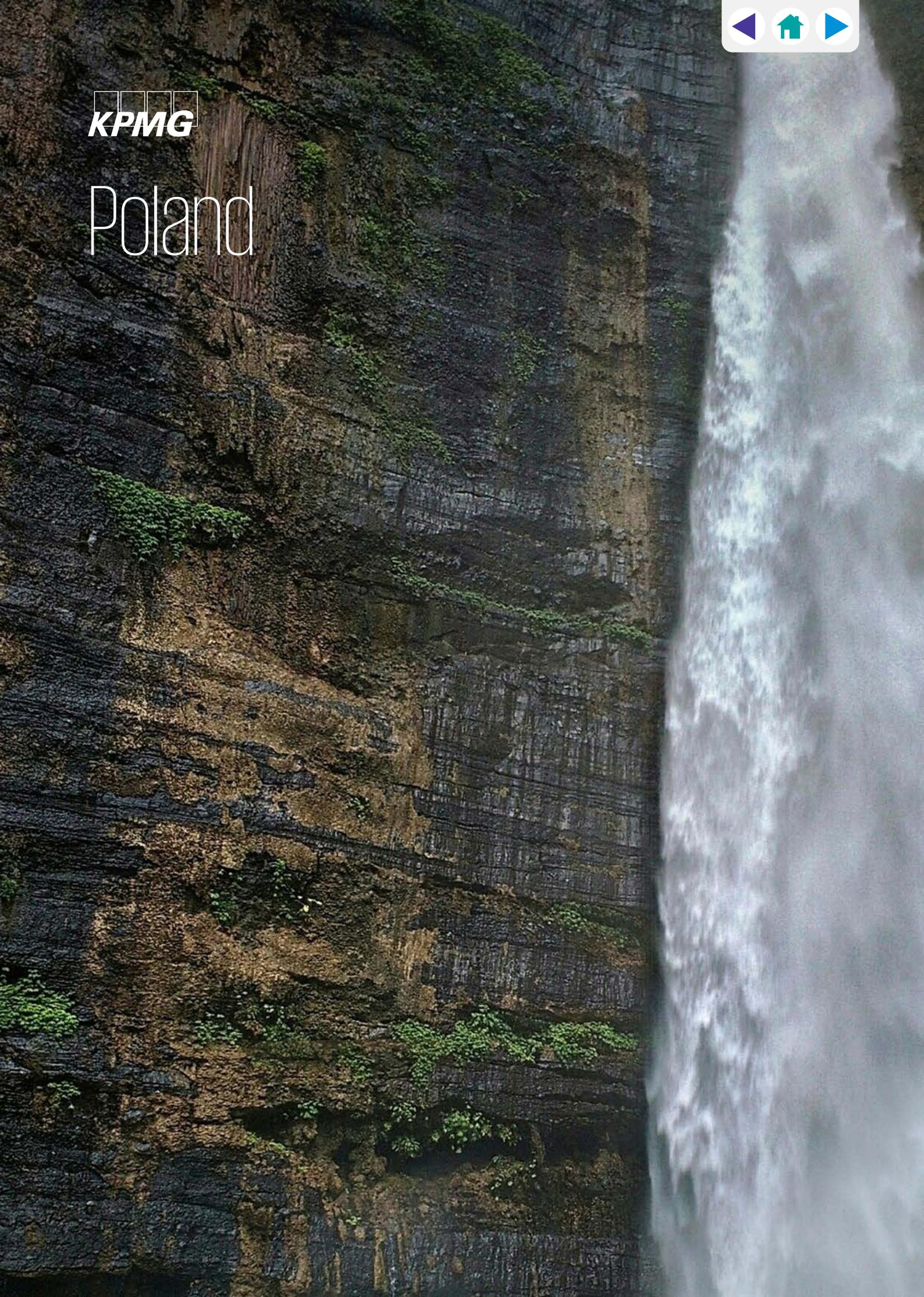


Source: (1) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section



KPMG

Poland



C&C cigarette consumption and total consumption

42.3bn

Cigarettes consumed



+1.37bn on 2018

3.6bn

C&C cigarettes consumed



-0.48bn on 2018

8.5%

Of total consumption was C&C



-1.46%pts on 2018

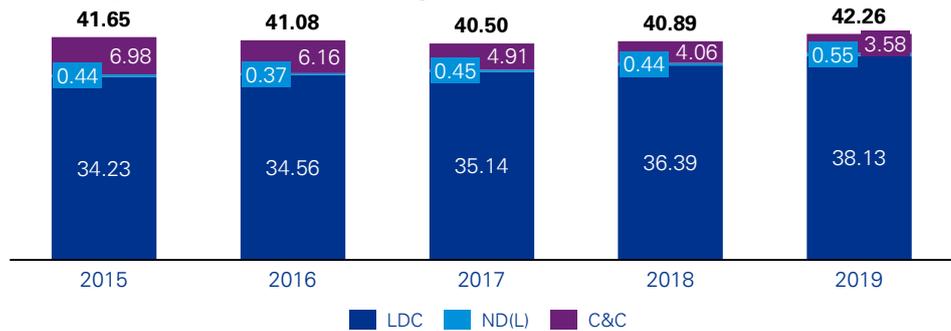
€465m

Total tax revenue lost from C&C



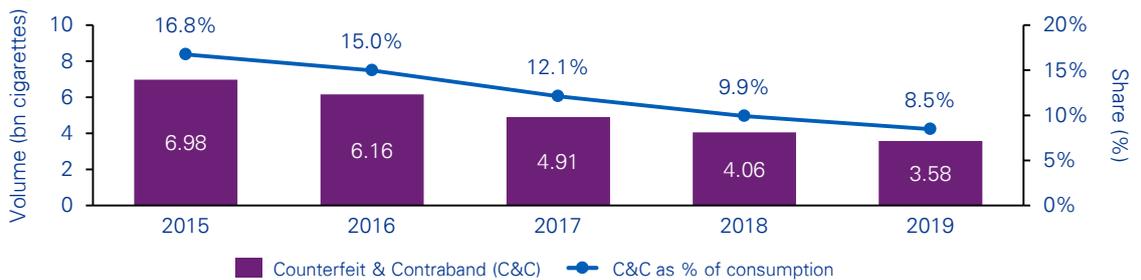
-€56m on 2018

Total consumption – 2015-2019 (bn cigarettes)

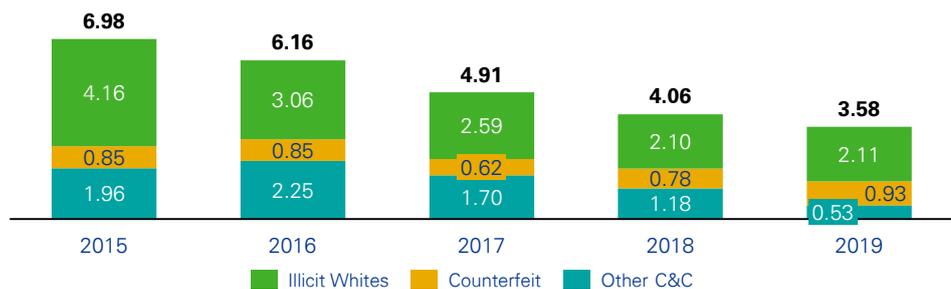


- C&C continued to decline in volume and percentage terms, accounting for 8.5% of total cigarette consumption in 2019
- Total cigarette consumption increased in 2019, alongside greater inflows of temporary workers from neighbouring countries, increasing the number of smokers⁽¹⁾
- Flows of Illicit Whites and counterfeit remain an issue, accounting for 85% of C&C in 2019

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2015-2019



Breakdown of C&C consumption by type – 2015-2019 (bn cigarettes)



Note: C&C breakdown chart only includes counterfeit volumes related to brands of manufacturers who participate in the empty pack/yellow bag surveys. Total tax revenue lost represents estimated excise and VAT if C&C volumes had been consumed legally in the country of study

Source: (1) Ministry of Family, Labour and Civic Policies; (2) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

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Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2015-2019

Total Poland Consumption						
Billion cigarettes	2015	2016	2017	2018	2019	2018-19 (%)
Legal Domestic Sales (LDS)	41.20	41.33	41.59	42.85	44.99	5%
Outflows	(6.97)	(6.78)	(6.44)	(6.46)	(6.85)	6%
Legal Domestic Consumption (LDC)	34.23	34.56	35.14	36.39	38.13	5%
Non-Domestic Legal (ND(L))	0.44	0.37	0.45	0.44	0.55	24%
Counterfeit and Contraband (C&C)	6.98	6.16	4.91	4.06	3.58	(12%)
Total Non-Domestic	7.42	6.53	5.35	4.50	4.12	(8%)
Total Consumption	41.65	41.08	40.50	40.89	42.26	3%

- Illicit Whites and counterfeit inflows increased in 2019 despite an overall inflow volume decline
- Inflows from Belarus and Ukraine are considered predominately illicit as volumes that can be legally imported are low due to a 40 cigarette limit per land traveller
- Neighbouring Germany remains the main outflow market, with volumes increasing to 4.9bn in 2019. Outflows to the UK declined in 2019 against a backdrop of reduced traveller numbers

Total inflows by country of origin – 2015-2019

Inflows to Poland					
Billion cigarettes	2015	2016	2017	2018	2019
Belarus	2.68	2.09	1.83	1.30	1.08
IWs with no country-specific labelling	1.46	0.94	0.78	0.86	0.96
Counterfeit	0.85	0.85	0.62	0.78	0.93
Ukraine	1.34	2.10	1.51	0.86	0.55
Other	1.09	0.54	0.61	0.70	0.60
Total Inflows	7.42	6.53	5.35	4.50	4.12

Total outflows by country of origin – 2015-2019

Outflows from Poland					
Billion cigarettes	2015	2016	2017	2018	2019
Germany	(4.79)	(4.57)	(4.46)	(4.20)	(4.94)
UK	(1.38)	(1.51)	(1.39)	(1.51)	(1.14)
Other	(0.79)	(0.69)	(0.60)	(0.75)	(0.77)
Total Outflows	(6.97)	(6.78)	(6.44)	(6.46)	(6.85)

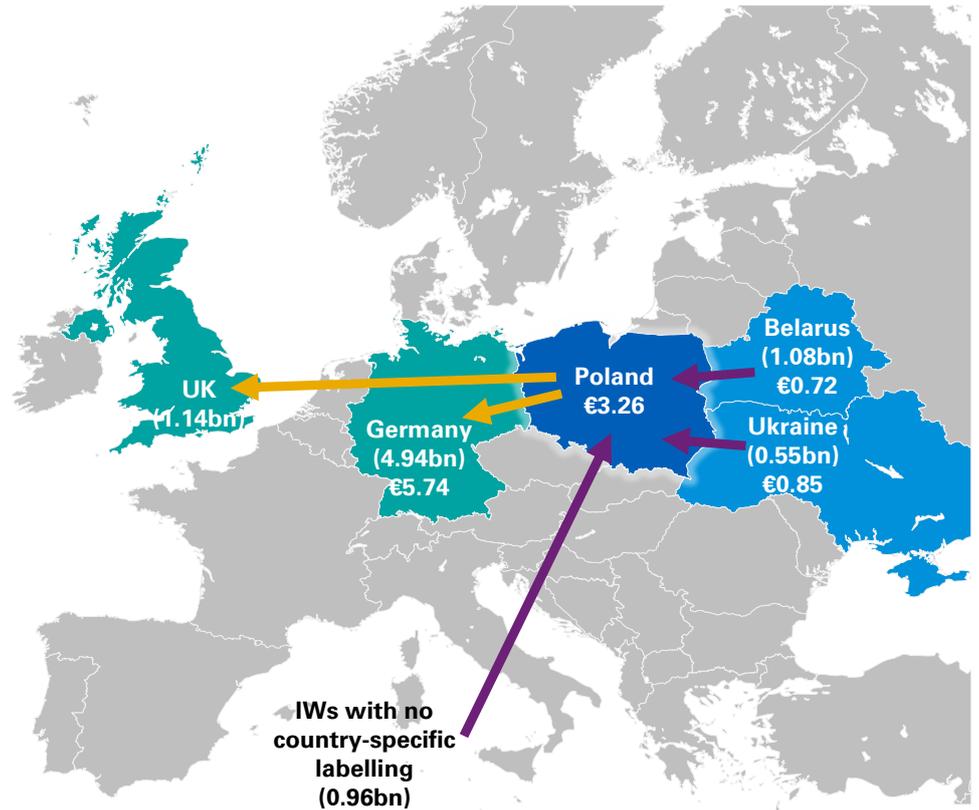
Note: The inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows
 Source: KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

Key flows and C&C consumption patterns

Key inflows and outflows

- Poland
- Source
- Destination
- Inflow
- Outflow

Label description:
Country (Inflow/
Outflow Volume)
WAP



C&C consumption by region^(a)

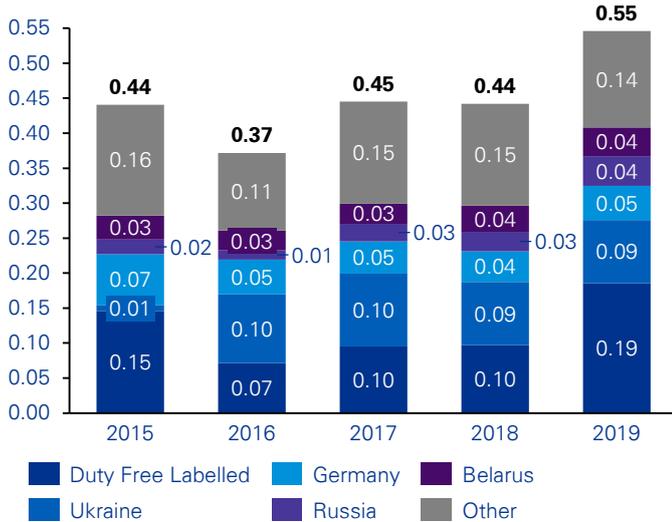


Note: (a) C&C scale is relative to this market and is not comparable with other markets in the study

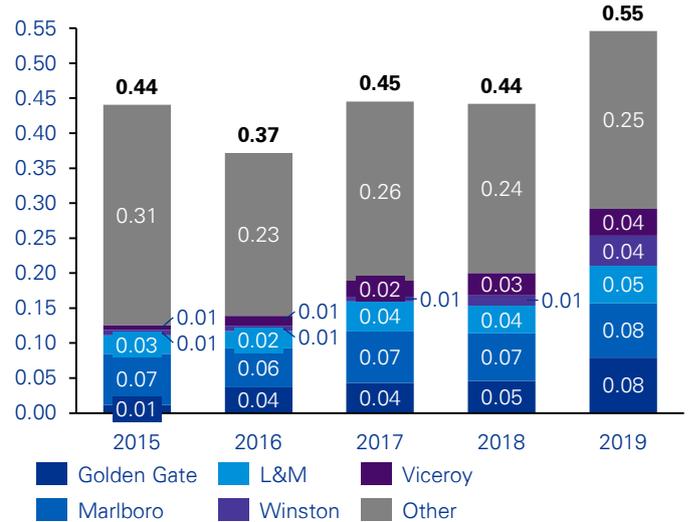
Source: (1) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

ND(L) and C&C flows

ND(L) by country of origin – 2015-2019 (bn cigarettes)

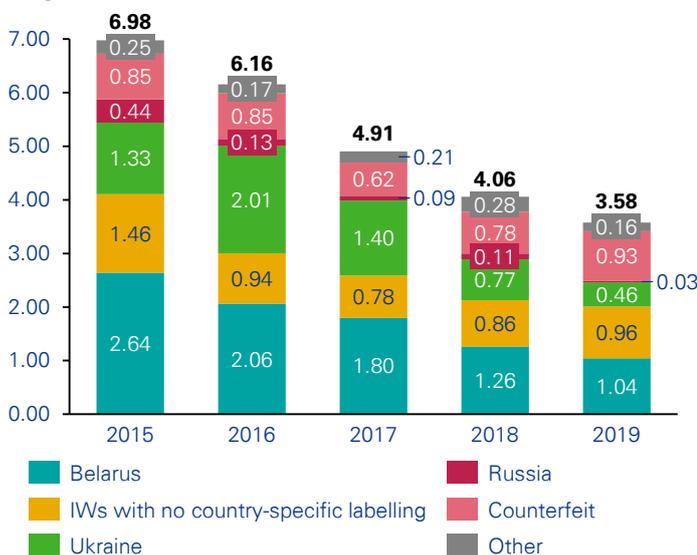


ND(L) by brand – 2015-2019 (bn cigarettes)

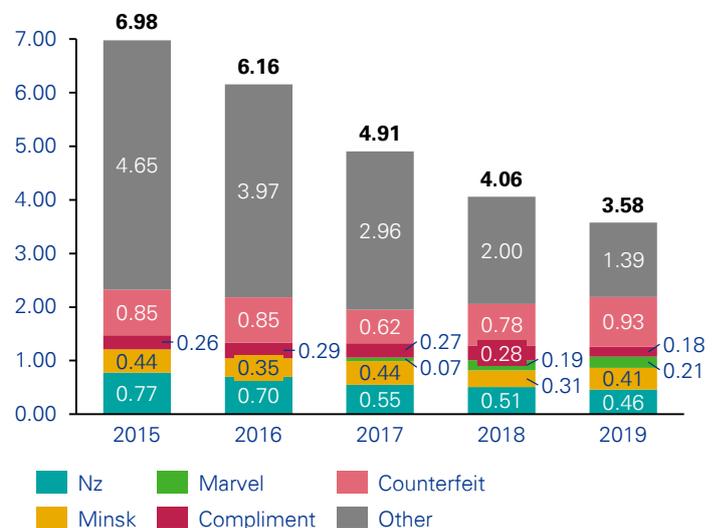


- NZ, Minsk, Marvel and Compliment are the most common C&C brand flows, all of which are Illicit Whites
- The highest levels of C&C were recorded in the Podlaskie region bordering Belarus

C&C by country of origin – 2015-2019 (bn cigarettes)



C&C by brand – 2015-2019 (bn cigarettes)

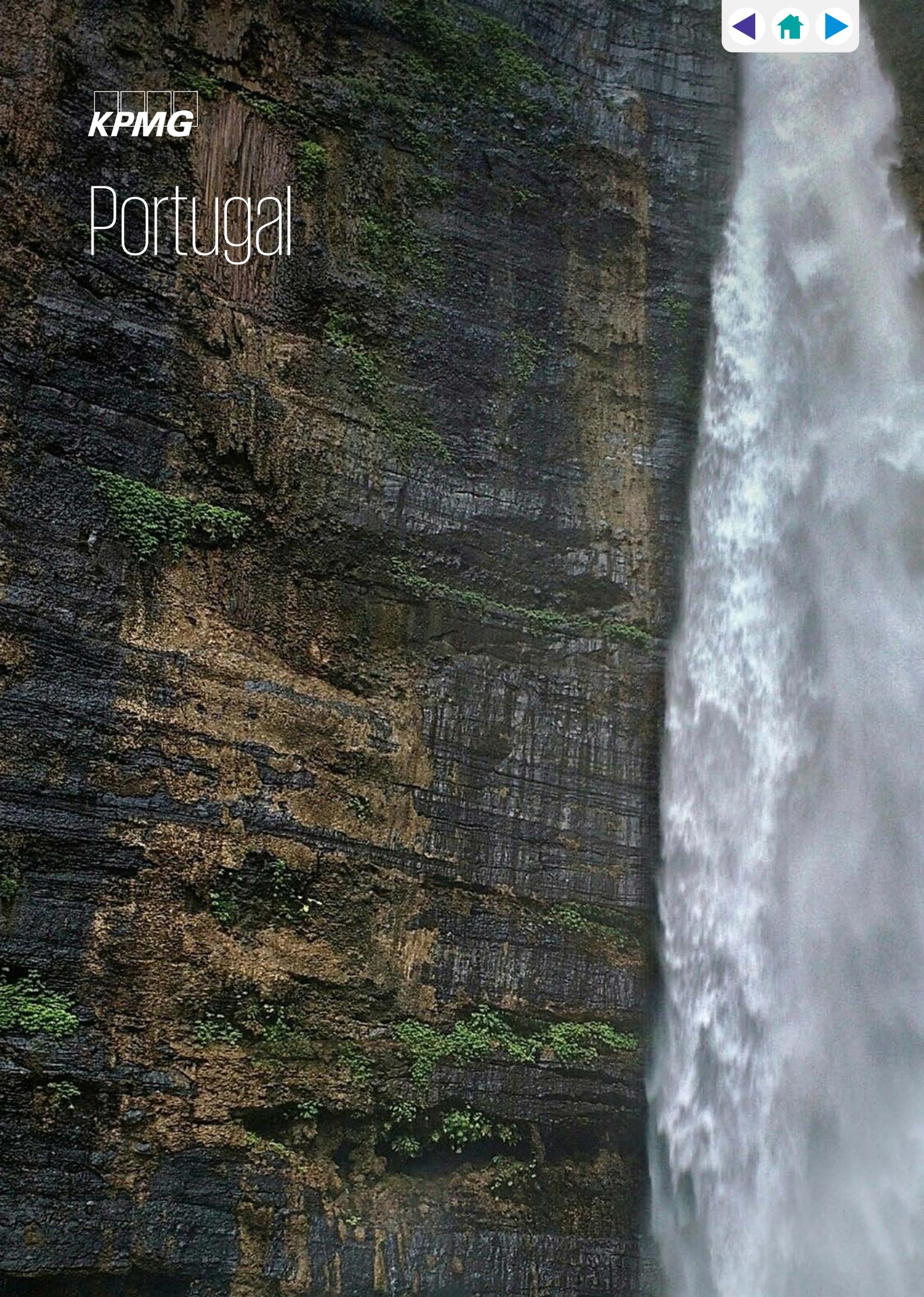


Source: (1) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section



KPMG

Portugal





C&C cigarette consumption and total consumption

10.1bn

Cigarettes consumed



+0.26bn on 2018

0.6bn

C&C cigarettes consumed



+0.20bn on 2018

5.6%

Of total consumption was C&C



+1.86%pts on 2018

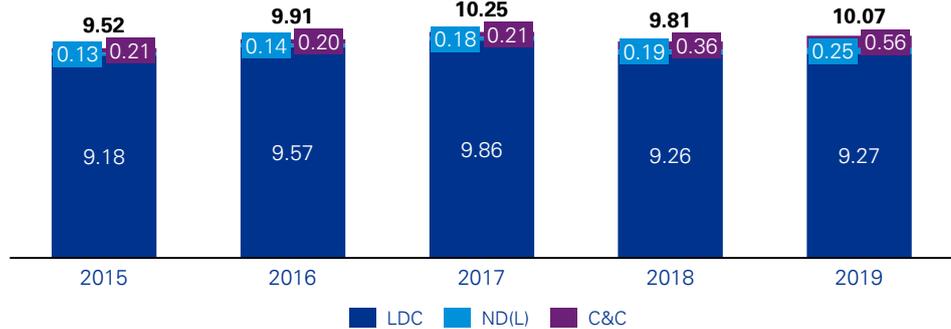
€96m

Total tax revenue lost from C&C



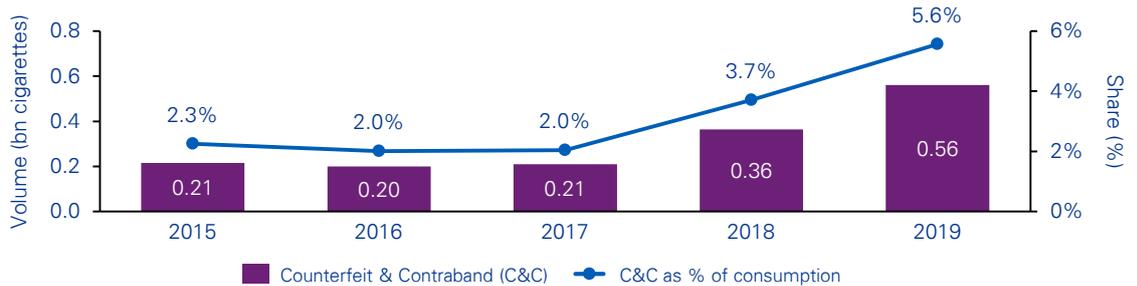
+€34m on 2018

Total consumption – 2015-2019 (bn cigarettes)

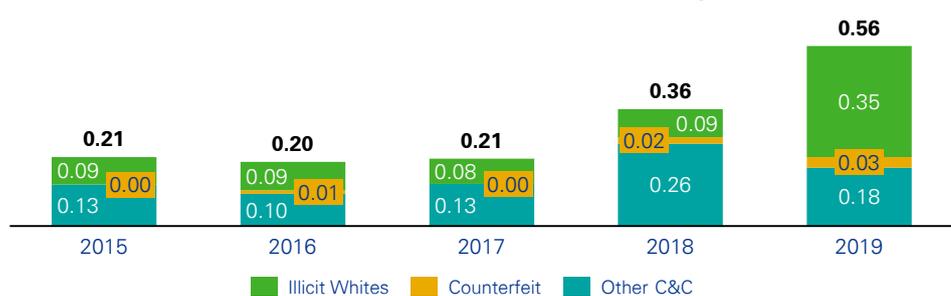


- C&C increased to 5.6% of cigarette consumption in 2019 driven by increasing Illicit Whites inflows
- Total cigarette consumption increased by 3% to 10.1bn, with increases in both domestic and non-domestic volumes

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2015-2019



Breakdown of C&C consumption by type – 2015-2019 (bn cigarettes)



Note: C&C breakdown chart only includes counterfeit volumes related to brands of manufacturers who participate in the empty pack/yellow bag surveys. Total tax revenue lost represents estimated excise and VAT if C&C volumes had been consumed legally in the country of study

Source: KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2015-2019

Total Portugal Consumption						
Billion cigarettes	2015	2016	2017	2018	2019	2018-19 (%)
Legal Domestic Sales (LDS)	9.77	10.06	10.23	9.68	9.77	1%
Outflows	(0.60)	(0.49)	(0.37)	(0.42)	(0.51)	20%
Legal Domestic Consumption (LDC)	9.18	9.57	9.86	9.26	9.27	0%
Non-Domestic Legal (ND(L))	0.13	0.14	0.18	0.19	0.25	29%
Counterfeit and Contraband (C&C)	0.21	0.20	0.21	0.36	0.56	54%
Total Non-Domestic	0.34	0.34	0.39	0.56	0.81	46%
Total Consumption	9.52	9.91	10.25	9.81	10.07	3%

- Increasing non-domestic inflows were principally driven by Illicit Whites, all of which are considered C&C
- Outflows are primarily to France and the UK, countries for which Portugal is a popular holiday destination

Total inflows by country of origin – 2015-2019

Inflows to Portugal						
Billion cigarettes	2015	2016	2017	2018	2019	
IWs with no country-specific labelling	0.07	0.05	0.11	0.14	0.31	
Spain	0.03	0.06	0.08	0.14	0.13	
Andorra	0.01	0.00	0.01	0.08	0.09	
Duty Free Labelled	0.05	0.05	0.05	0.03	0.06	
Angola	0.07	0.04	0.02	0.07	0.03	
Other	0.11	0.14	0.11	0.10	0.18	
Total Inflows	0.34	0.34	0.39	0.56	0.81	

Total outflows by country of origin – 2015-2019

Outflows from Portugal						
Billion cigarettes	2015	2016	2017	2018	2019	
France	(0.34)	(0.28)	(0.13)	(0.24)	(0.22)	
UK	(0.07)	(0.07)	(0.08)	(0.04)	(0.13)	
Germany	(0.04)	(0.02)	(0.02)	(0.02)	(0.03)	
Ireland	(0.02)	(0.02)	(0.03)	(0.01)	(0.03)	
Other	(0.13)	(0.10)	(0.11)	(0.11)	(0.09)	
Total Outflows	(0.60)	(0.49)	(0.37)	(0.42)	(0.51)	

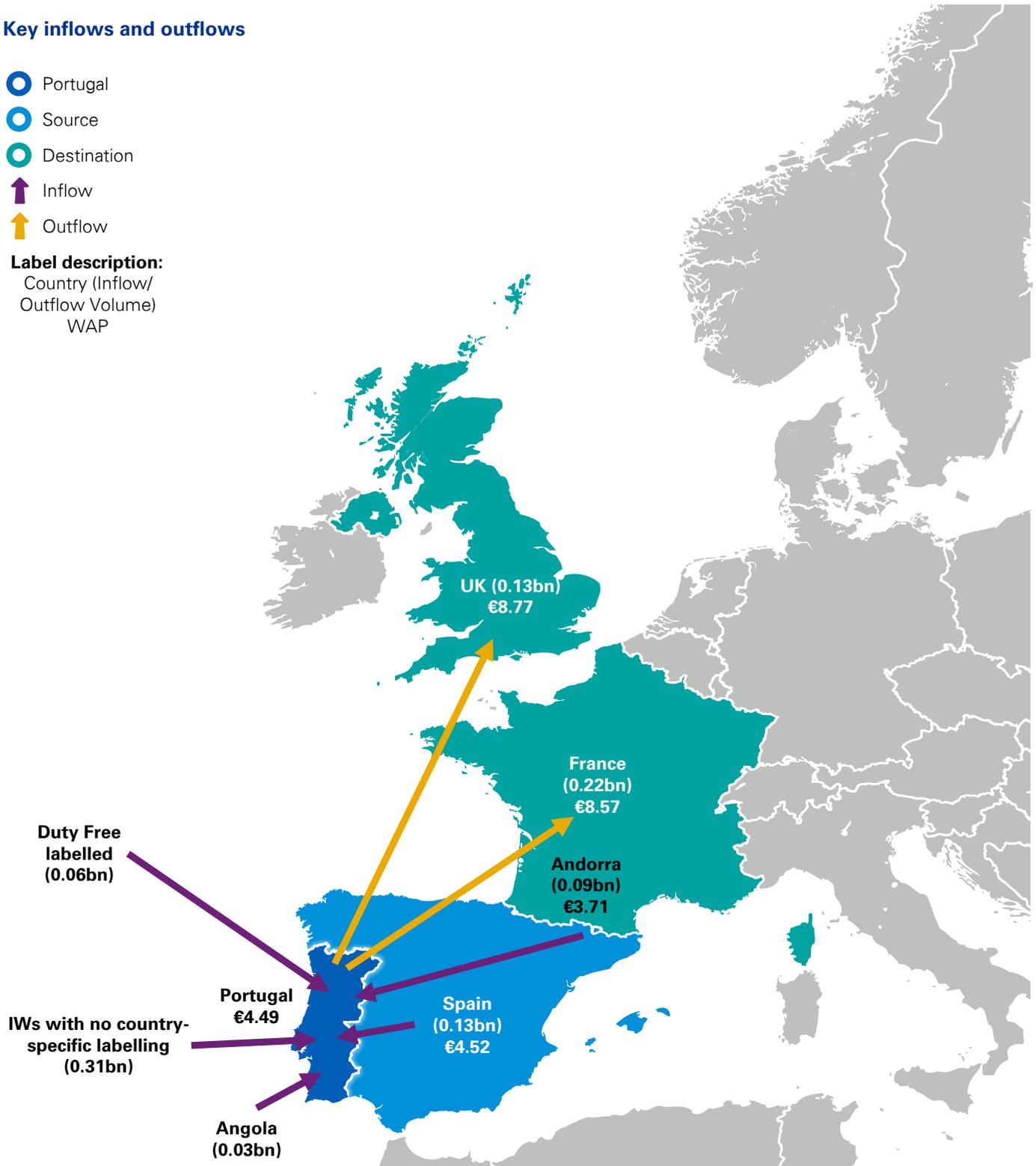
Note: The inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows
Source: KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

Key flows and C&C consumption patterns

Key inflows and outflows

- Portugal
- Source
- Destination
- Inflow
- Outflow

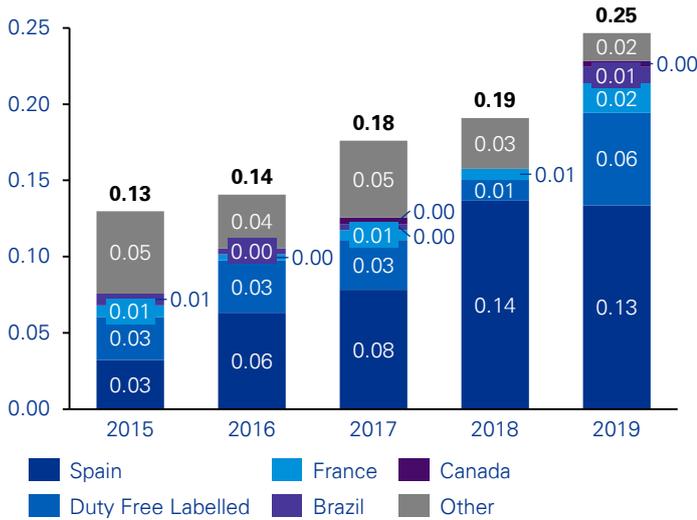
Label description:
Country (Inflow/
Outflow Volume)
WAP



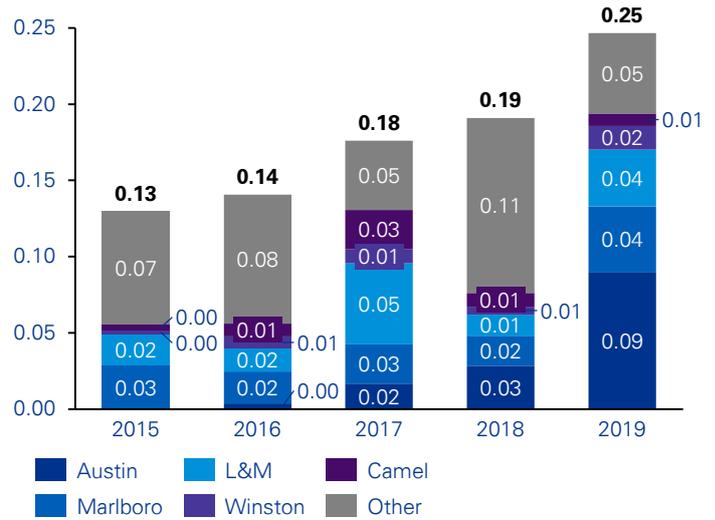
Source: (1) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

ND(L) and C&C flows

ND(L) by country of origin – 2015-2019 (bn cigarettes)

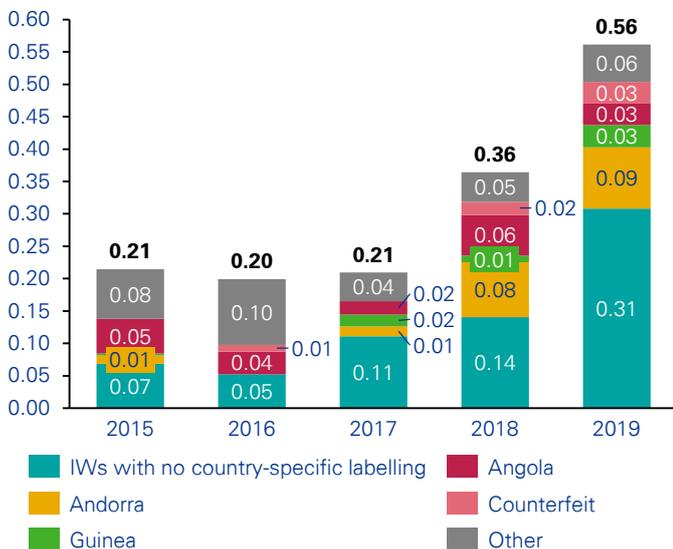


ND(L) by brand – 2015-2019 (bn cigarettes)

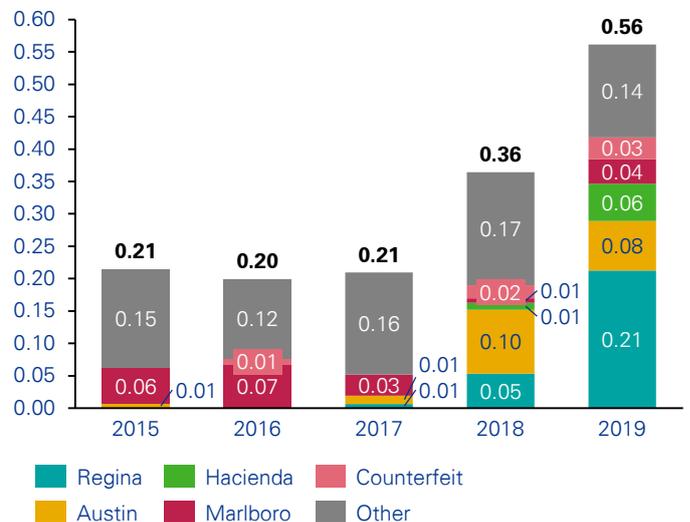


- Increased Duty Free Labelled inflows drove higher non-domestic legal in 2019
- Increasing C&C inflows were driven by Illicit Whites
- The most prevalent Illicit White brand flow was Regina

C&C by country of origin – 2015-2019 (bn cigarettes)



C&C by brand – 2015-2019 (bn cigarettes)

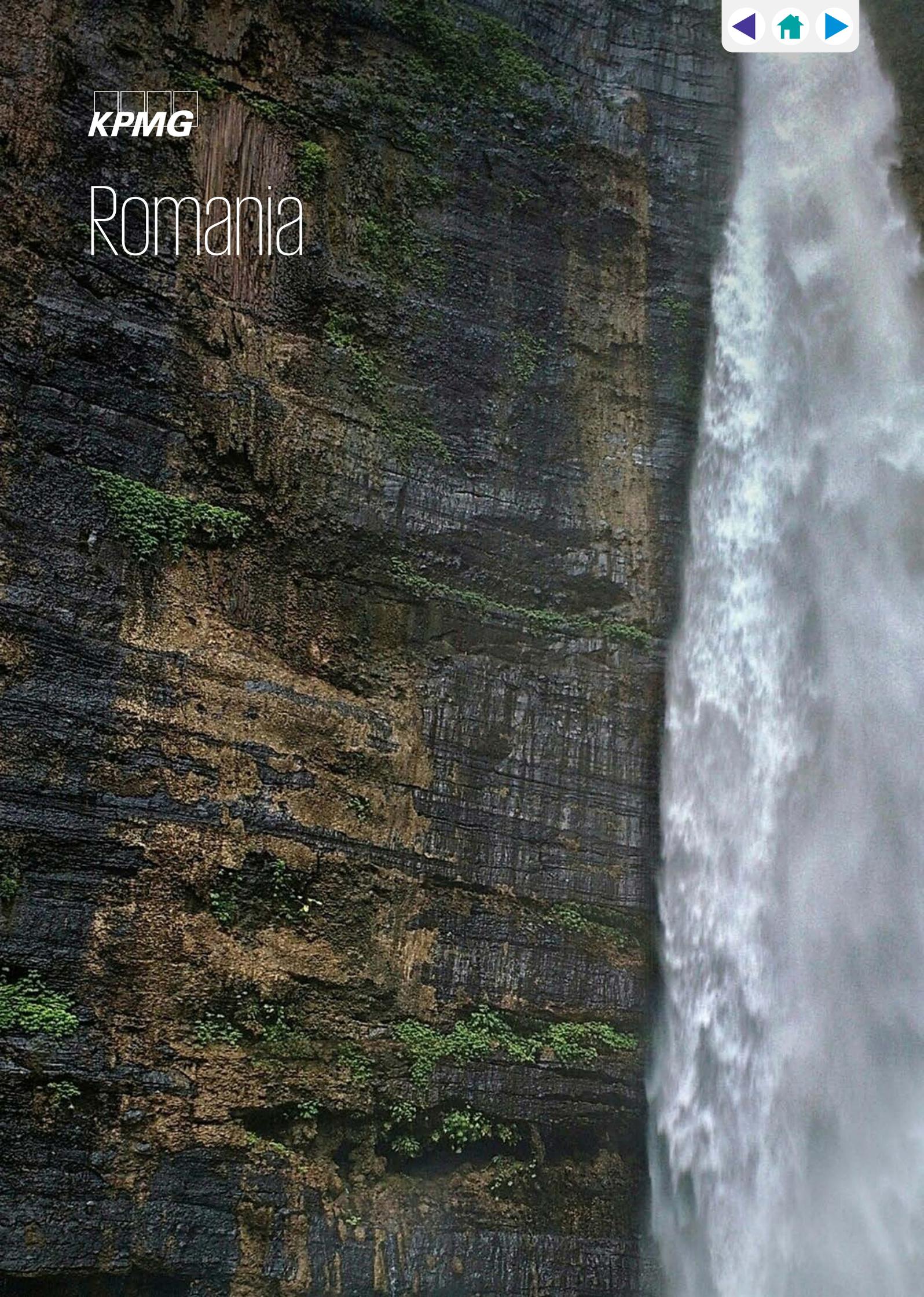


Source: (1) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section



KPMG

Romania



C&C cigarette consumption and total consumption

27.3bn

Cigarettes consumed



+1.35bn on 2018

3.3bn

C&C cigarettes consumed



-0.56bn on 2018

12.3%

Of total consumption was C&C



-2.79%pts on 2018

€439m

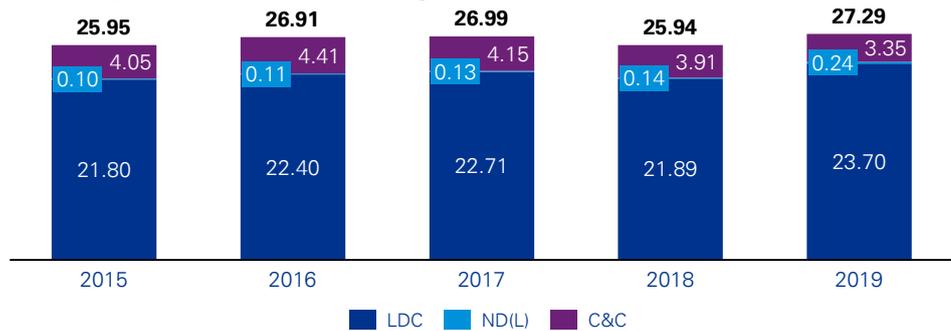
(LEI2,099m)⁽²⁾

Total tax revenue lost from C&C



-€51m on 2018

Total consumption – 2015-2019 (bn cigarettes)

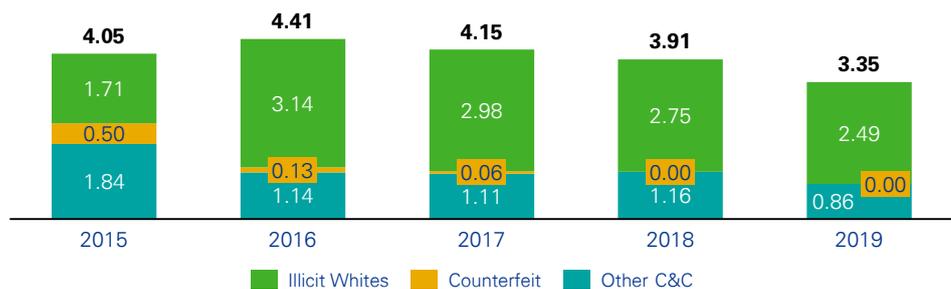


- C&C fell to 12.3% of cigarette consumption in 2019, driven by declining Illicit White and Moldovan inflows
- Total cigarette consumption increased, which may indicate consumers are switching to cigarettes from other tobacco products, against a backdrop of ongoing macroeconomic growth⁽¹⁾

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2015-2019



Breakdown of C&C consumption by type – 2015-2019 (bn cigarettes)



Note: C&C breakdown chart only includes counterfeit volumes related to brands of manufacturers who participate in the empty pack/yellow bag surveys. Total tax revenue lost represents estimated excise and VAT if C&C volumes had been consumed legally in the country of study

Source: KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2015-2019

Total Romania Consumption						
Billion cigarettes	2015	2016	2017	2018	2019	2018-19 (%)
Legal Domestic Sales (LDS)	23.80	24.13	24.51	24.23	25.14	4%
Outflows	(2.00)	(1.73)	(1.80)	(2.34)	(1.44)	(38%)
Legal Domestic Consumption (LDC)	21.80	22.40	22.71	21.89	23.70	8%
Non-Domestic Legal (ND(L))	0.10	0.11	0.13	0.14	0.24	68%
Counterfeit and Contraband (C&C)	4.05	4.41	4.15	3.91	3.35	(14%)
Total Non-Domestic	4.15	4.51	4.28	4.05	3.58	(11%)
Total Consumption	25.95	26.91	26.99	25.94	27.29	5%

- Illicit Whites with no country-specific labelling flows declined in 2019, but still remained the primary source of inflows, all of which are considered illicit
- Other major inflows came from neighbouring cheaper markets Moldova and Ukraine, the majority of which are considered C&C due to low legal limits when crossing the border
- Declines in outflows to the UK and France coincide with falls in traveller numbers of 16% and 14% respectively

Total inflows by country of origin – 2015-2019

Inflows to Romania						
Billion cigarettes	2015	2016	2017	2018	2019	
IWs with no country-specific labelling	2.26	2.66	2.43	2.35	2.13	
Moldova	0.72	0.64	0.94	1.00	0.57	
Ukraine	0.25	0.85	0.59	0.44	0.47	
Other	0.92	0.36	0.31	0.26	0.42	
Total Inflows	4.15	4.51	4.28	4.05	3.58	

Total outflows by country of origin – 2015-2019

Outflows from Romania						
Billion cigarettes	2015	2016	2017	2018	2019	
UK	(0.71)	(0.67)	(0.93)	(1.06)	(0.44)	
Germany	(0.13)	(0.15)	(0.19)	(0.22)	(0.22)	
France	(0.72)	(0.49)	(0.17)	(0.31)	(0.20)	
Ireland	(0.08)	(0.08)	(0.10)	(0.17)	(0.11)	
Czech Republic	(0.01)	(0.01)	(0.00)	(0.02)	(0.07)	
Other	(0.36)	(0.33)	(0.41)	(0.55)	(0.40)	
Total Outflows	(2.00)	(1.73)	(1.80)	(2.34)	(1.44)	

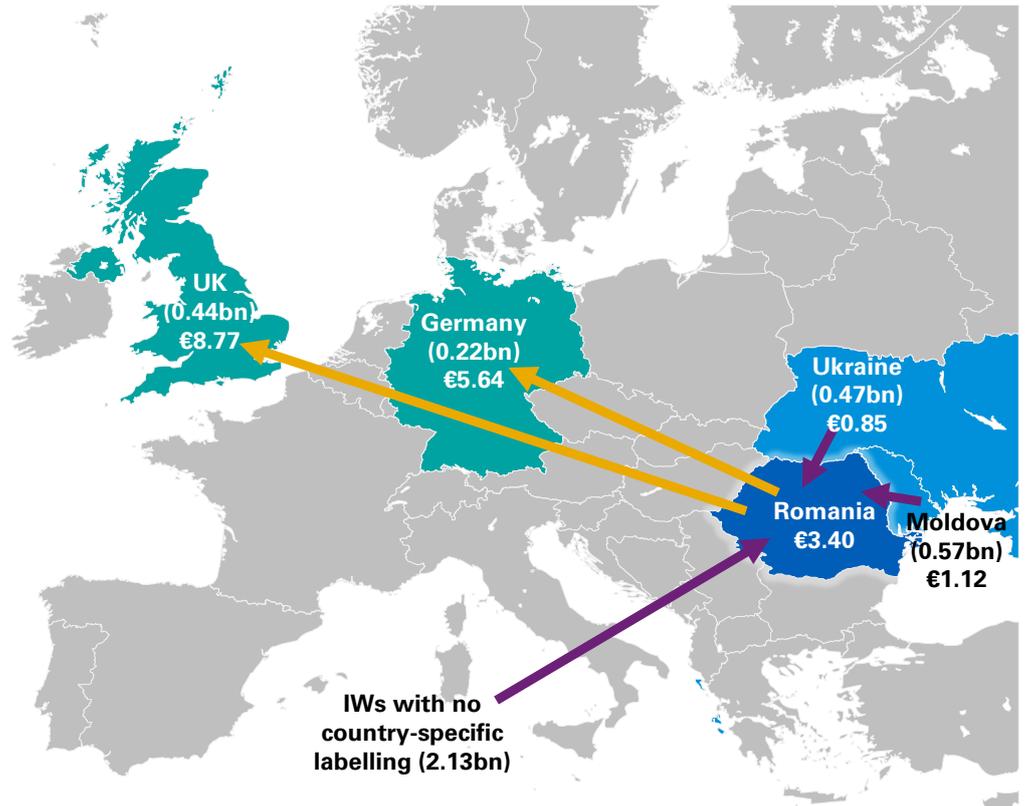
Note: The inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows
Source: KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

Key flows and C&C consumption patterns

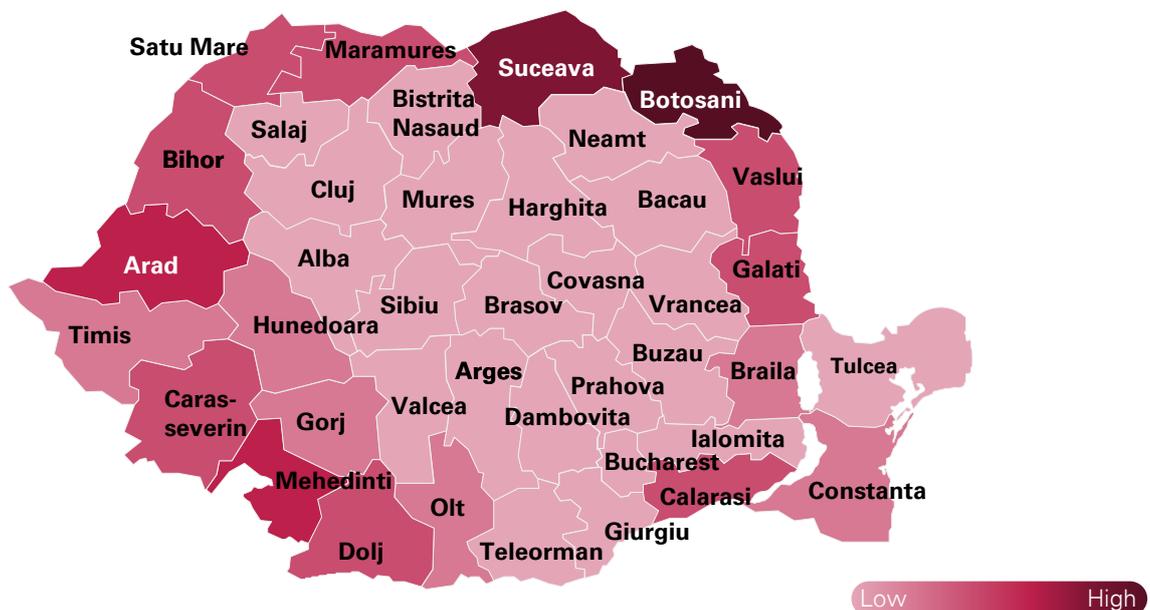
Key inflows and outflows

- Romania
- Source
- Destination
- ↑ Inflow
- ↑ Outflow

Label description:
Country (Inflow/
Outflow Volume)
WAP



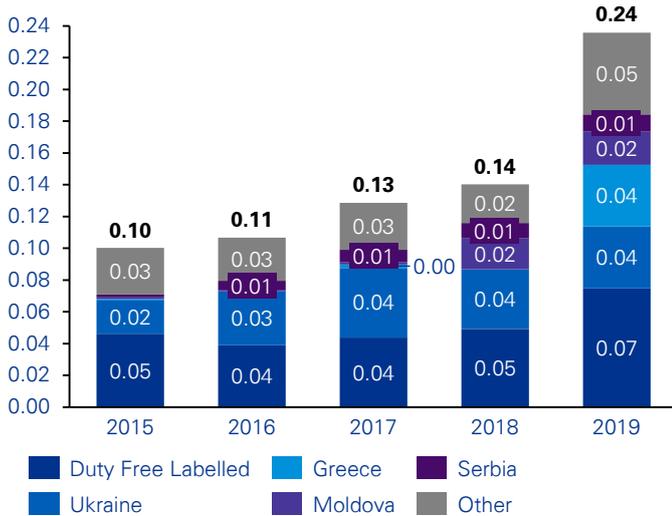
C&C consumption by region^(a)



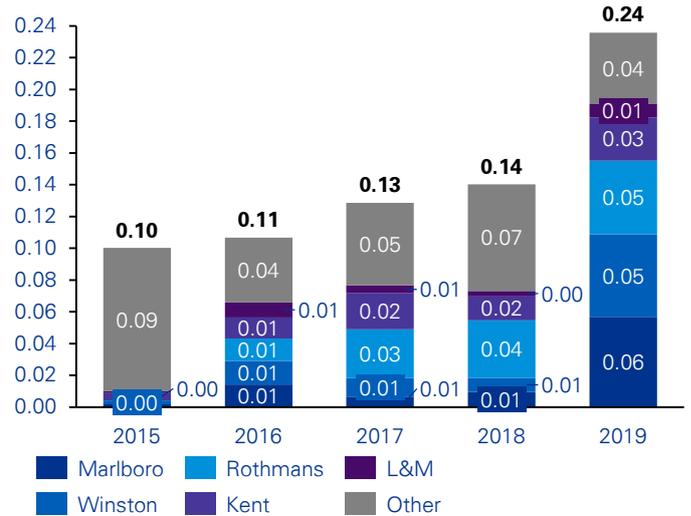
Note: (a) C&C scale is relative to this market and is not comparable with other markets in the study
Source: (1) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

ND(L) and C&C flows

ND(L) by country of origin – 2015-2019 (bn cigarettes)

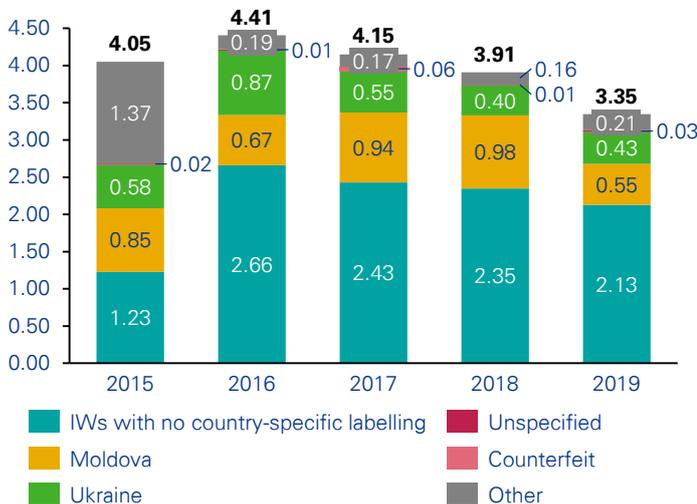


ND(L) by brand – 2015-2019 (bn cigarettes)

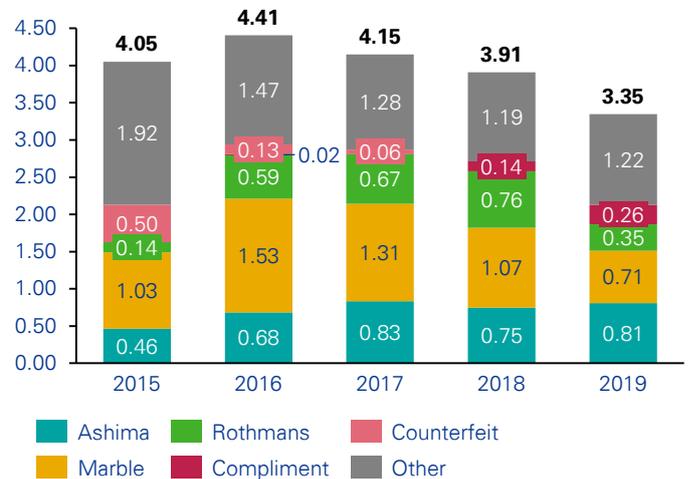


- Duty Free Labelled and Greece increases drove higher non-domestic legal inflows
- Illicit Whites flows remained the primary source of C&C, albeit declining
- Flows of two Illicit Whites brands - Ashima and Marble - accounted for 45% of C&C
- Regional C&C was highest in the North of the country bordering Moldova and Ukraine

C&C by country of origin – 2015-2019 (bn cigarettes)



C&C by brand – 2015-2019 (bn cigarettes)

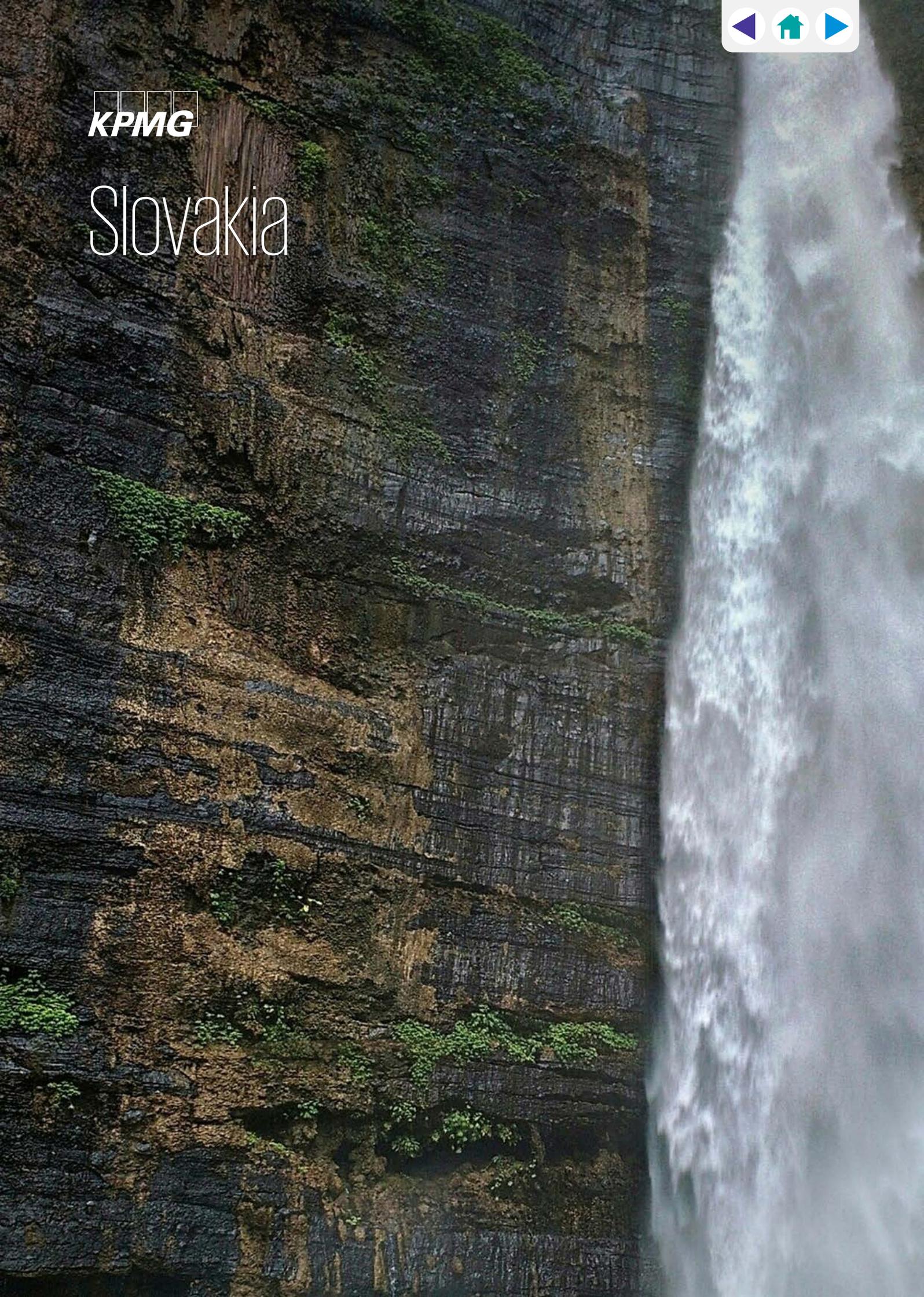


Source: (1) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section



KPMG

Slovakia





C&C cigarette consumption and total consumption

6.9bn

Cigarettes consumed



-0.22bn on 2018

0.3bn

C&C cigarettes consumed



-0.09bn on 2018

3.8%

Of total consumption was C&C



-1.17%pts on 2018

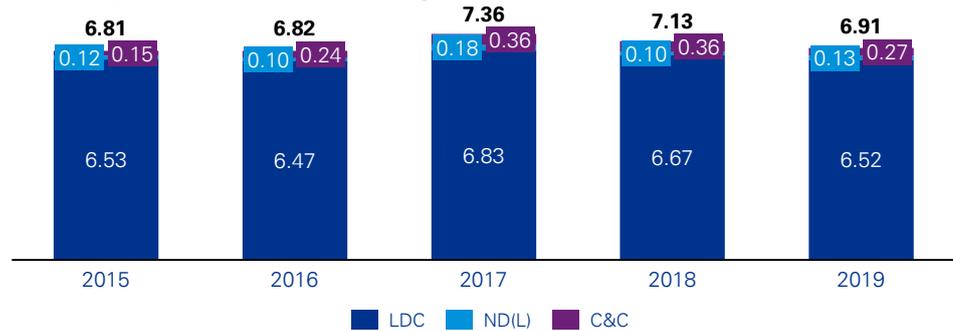
€33m

Total tax revenue lost from C&C



-€12m on 2018

Total consumption – 2015-2019 (bn cigarettes)

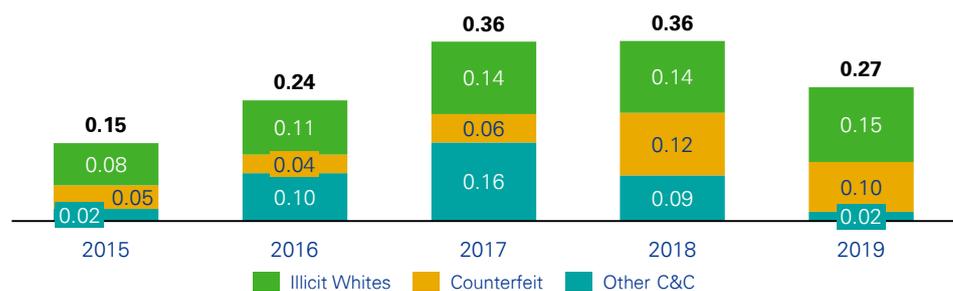


- C&C fell to 3.8% of cigarette consumption in 2019, reversing an increasing trend seen since 2015
- Total cigarette consumption also declined in 2019, driven by lower domestic consumption and a decrease in non-domestic inflows

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2015-2019



Breakdown of C&C consumption by type – 2015-2019 (bn cigarettes)



Note: C&C breakdown chart only includes counterfeit volumes related to brands of manufacturers who participate in the empty pack/yellow bag surveys. Total tax revenue lost represents estimated excise and VAT if C&C volumes had been consumed legally in the country of study

Source: KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2015-2019

Total Slovakia Consumption						
Billion cigarettes	2015	2016	2017	2018	2019	2018-19 (%)
Legal Domestic Sales (LDS)	6.82	6.84	7.20	7.13	7.08	(1%)
Outflows	(0.29)	(0.37)	(0.37)	(0.46)	(0.57)	24%
Legal Domestic Consumption (LDC)	6.53	6.47	6.83	6.67	6.52	(2%)
Non-Domestic Legal (ND(L))	0.12	0.10	0.18	0.10	0.13	30%
Counterfeit and Contraband (C&C)	0.15	0.24	0.36	0.36	0.27	(26%)
Total Non-Domestic	0.28	0.34	0.53	0.46	0.39	(14%)
Total Consumption	6.81	6.82	7.36	7.13	6.91	(3%)

- The largest inflows to Slovakia remained Illicit Whites with no country-specific labelling and counterfeit, with both reducing in 2019
- The main outflow market is neighbouring higher-priced Austria

Total inflows by country of origin – 2015-2019

Inflows to Slovakia					
Billion cigarettes	2015	2016	2017	2018	2019
IWs with no country-specific labelling	0.07	0.09	0.14	0.14	0.13
Counterfeit	0.05	0.04	0.06	0.12	0.10
Czech Republic	0.04	0.03	0.07	0.02	0.06
Duty Free Labelled	0.02	0.03	0.05	0.04	0.02
Ukraine	0.06	0.11	0.14	0.07	0.02
Other	0.04	0.06	0.09	0.06	0.06
Total Inflows	0.28	0.34	0.53	0.46	0.39

Total outflows by country of origin – 2015-2019

Outflows from Slovakia					
Billion cigarettes	2015	2016	2017	2018	2019
Austria	(0.09)	(0.13)	(0.17)	(0.18)	(0.28)
Germany	(0.05)	(0.05)	(0.06)	(0.08)	(0.10)
Czech Republic	(0.03)	(0.03)	(0.02)	(0.07)	(0.10)
Other	(0.12)	(0.15)	(0.13)	(0.13)	(0.09)
Total Outflows	(0.29)	(0.37)	(0.37)	(0.46)	(0.57)

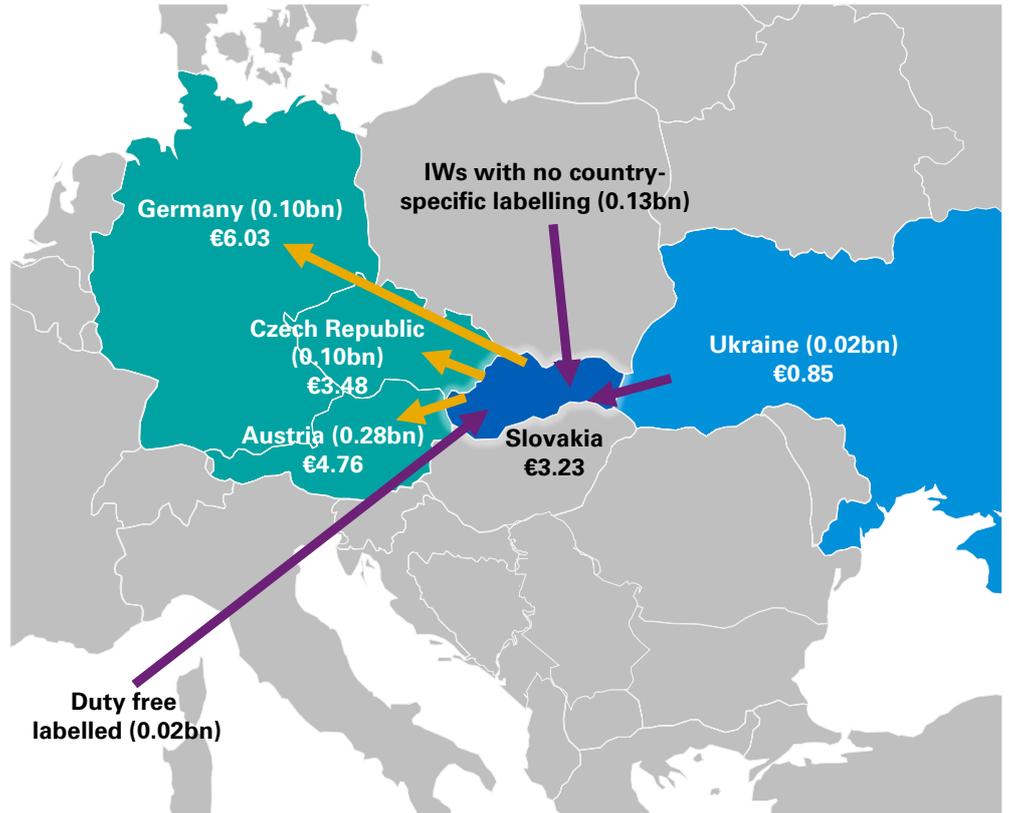
Note: The inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows
 Source: KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

Key flows and C&C consumption patterns

Key inflows and outflows

- Slovakia
- Source
- Destination
- Inflow
- Outflow

Label description:
Country (Inflow/
Outflow Volume)
WAP



C&C consumption by region^(a)

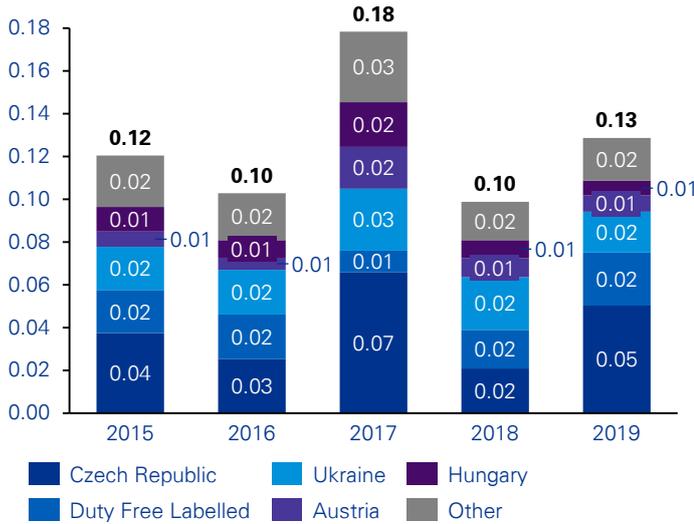


Note: (a) C&C scale is relative to this market and is not comparable with other markets in the study

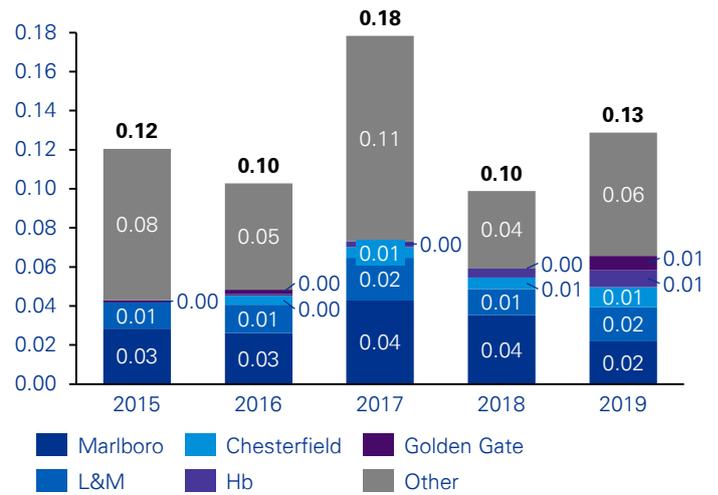
Source: (1) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

ND(L) and C&C flows

ND(L) by country of origin – 2015-2019 (bn cigarettes)

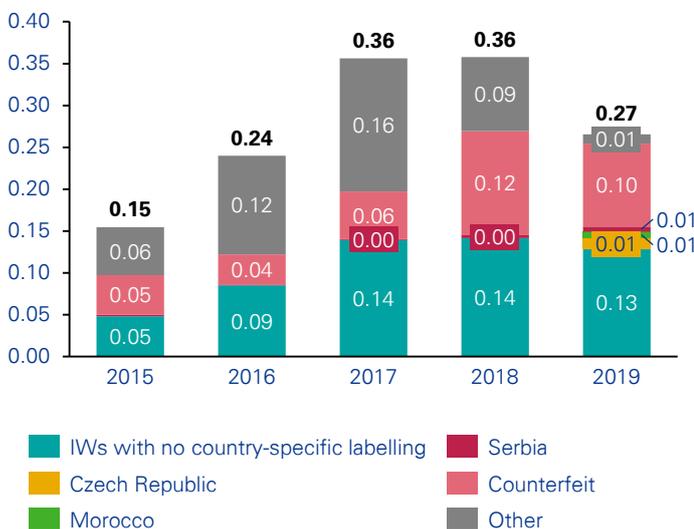


ND(L) by brand – 2015-2019 (bn cigarettes)

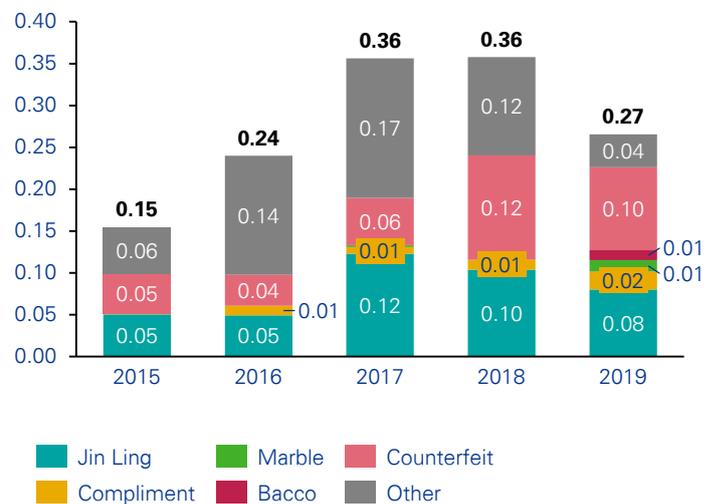


- Non-domestic legal inflow increases were driven by the Czech Republic
- The highest levels of C&C were recorded in the Kosicky Kraj region

C&C by country of origin – 2015-2019 (bn cigarettes)



C&C by brand – 2015-2019 (bn cigarettes)

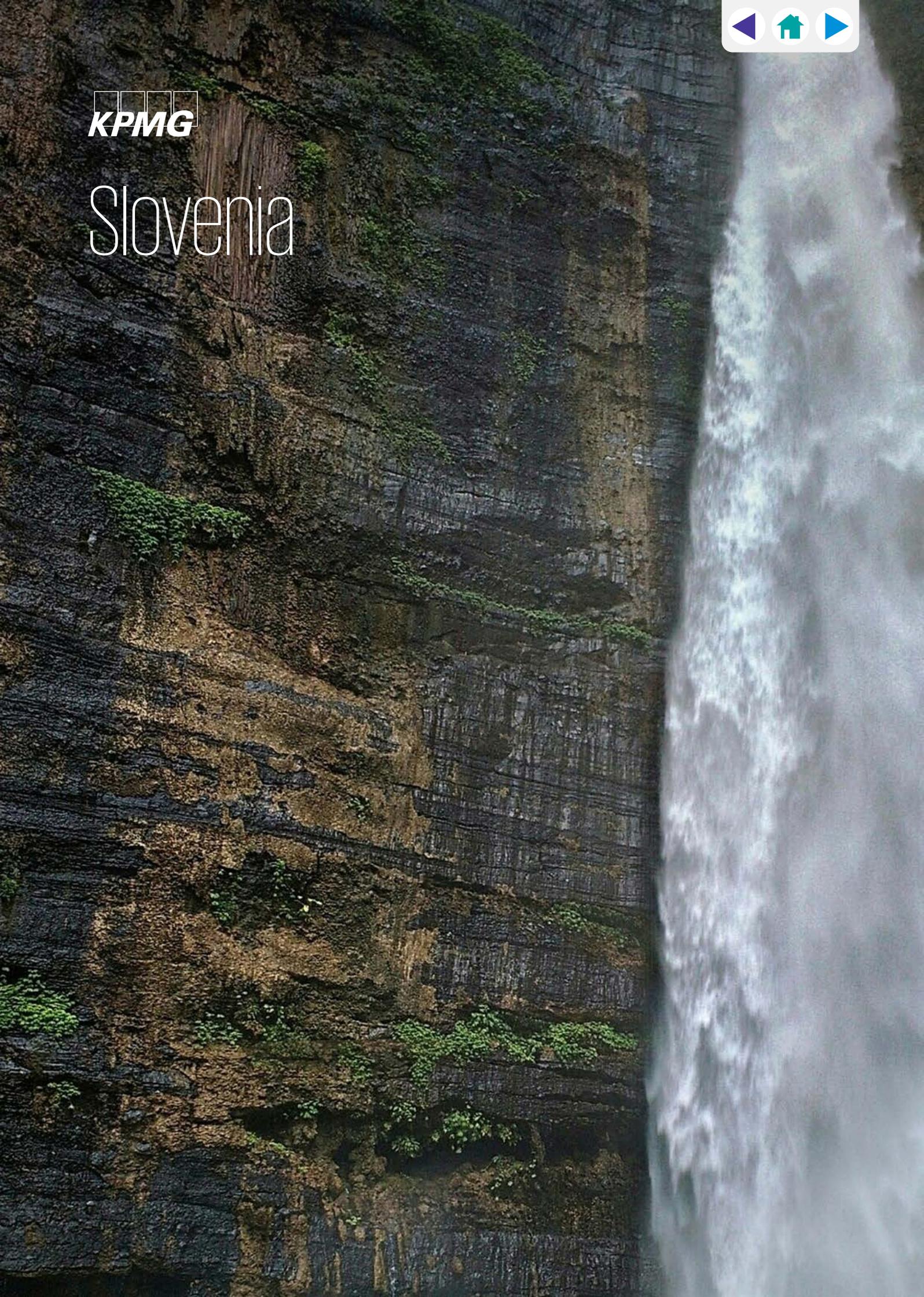


Source: (1) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section



KPMG

Slovenia





C&C cigarette consumption and total consumption

3.1bn

Cigarettes consumed



-0.31bn on 2018

0.3bn

C&C cigarettes consumed



-0.11bn on 2018

10.0%

Of total consumption was C&C



-2.43%pts on 2018

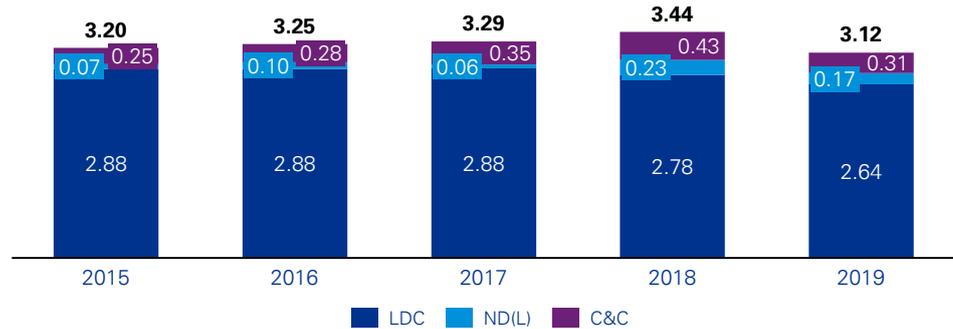
€45m

Total tax revenue lost from C&C



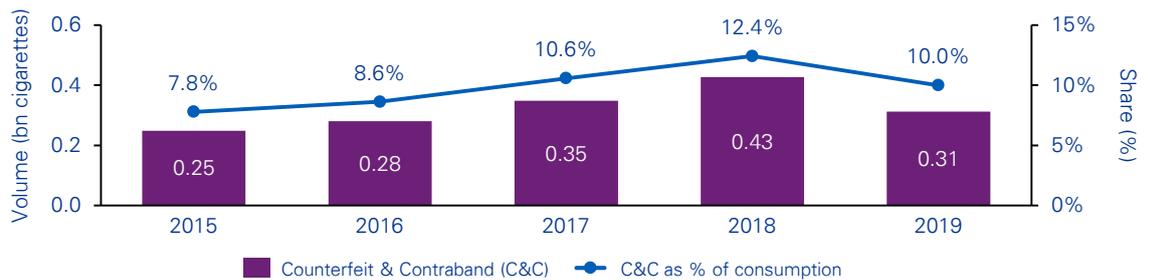
-€16m on 2018

Total consumption – 2015-2019 (bn cigarettes)

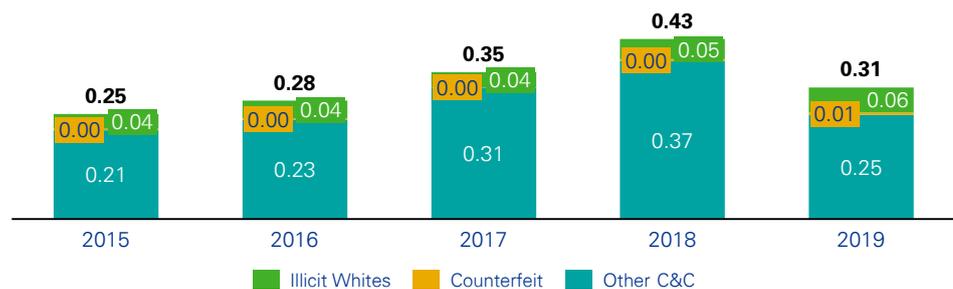


- C&C declined in 2019 to 10% of cigarette consumption, reversing an increasing trend seen since 2015
- Total cigarette consumption also declined, with decreases in both domestic consumption and non-domestic inflows

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2015-2019



Breakdown of C&C consumption by type – 2015-2019 (bn cigarettes)



Note: C&C breakdown chart only includes counterfeit volumes related to brands of manufacturers who participate in the empty pack/yellow bag surveys. Total tax revenue lost represents estimated excise and VAT if C&C volumes had been consumed legally in the country of study

Source: KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2015-2019

Total Slovenia Consumption						
Billion cigarettes	2015	2016	2017	2018	2019	2018-19 (%)
Legal Domestic Sales (LDS)	3.67	3.55	3.48	3.48	3.37	(3%)
Outflows	(0.80)	(0.67)	(0.60)	(0.70)	(0.73)	4%
Legal Domestic Consumption (LDC)	2.88	2.88	2.88	2.78	2.64	(5%)
Non-Domestic Legal (ND(L))	0.07	0.10	0.06	0.23	0.17	(26%)
Counterfeit and Contraband (C&C)	0.25	0.28	0.35	0.43	0.31	(27%)
Total Non-Domestic	0.32	0.38	0.41	0.66	0.48	(26%)
Total Consumption	3.20	3.25	3.29	3.44	3.12	(9%)

- Bosnia and Herzegovina, The Republic of North Macedonia and Croatia were the main inflow sources in 2019
- Due to the low pack limits when travelling to and from Bosnia and Herzegovina and The Republic of North Macedonia, these flows are considered largely illicit
- Conversely, as travellers can bring 800 cigarettes when travelling to Croatia this flow is considered largely legal
- Outflows from Slovenia are principally to the higher-priced neighbouring markets of Italy and Austria

Total inflows by country of origin – 2015-2019

Inflows to Slovenia					
Billion cigarettes	2015	2016	2017	2018	2019
Bosnia And Herzegovina	0.14	0.16	0.18	0.12	0.12
The Republic Of North Macedonia	0.03	0.03	0.04	0.03	0.06
Croatia	0.04	0.03	0.04	0.07	0.06
IWs with no country-specific labelling	0.02	0.01	0.03	0.04	0.05
Serbia	0.02	0.04	0.04	0.04	0.04
Other	0.07	0.12	0.08	0.36	0.14
Total Inflows	0.32	0.38	0.41	0.66	0.48

Total outflows by country of origin – 2015-2019

Outflows from Slovenia					
Billion cigarettes	2015	2016	2017	2018	2019
Italy	(0.21)	(0.15)	(0.12)	(0.18)	(0.41)
Austria	(0.42)	(0.37)	(0.34)	(0.39)	(0.20)
Other	(0.17)	(0.15)	(0.14)	(0.13)	(0.12)
Total Outflows	(0.80)	(0.67)	(0.60)	(0.70)	(0.73)

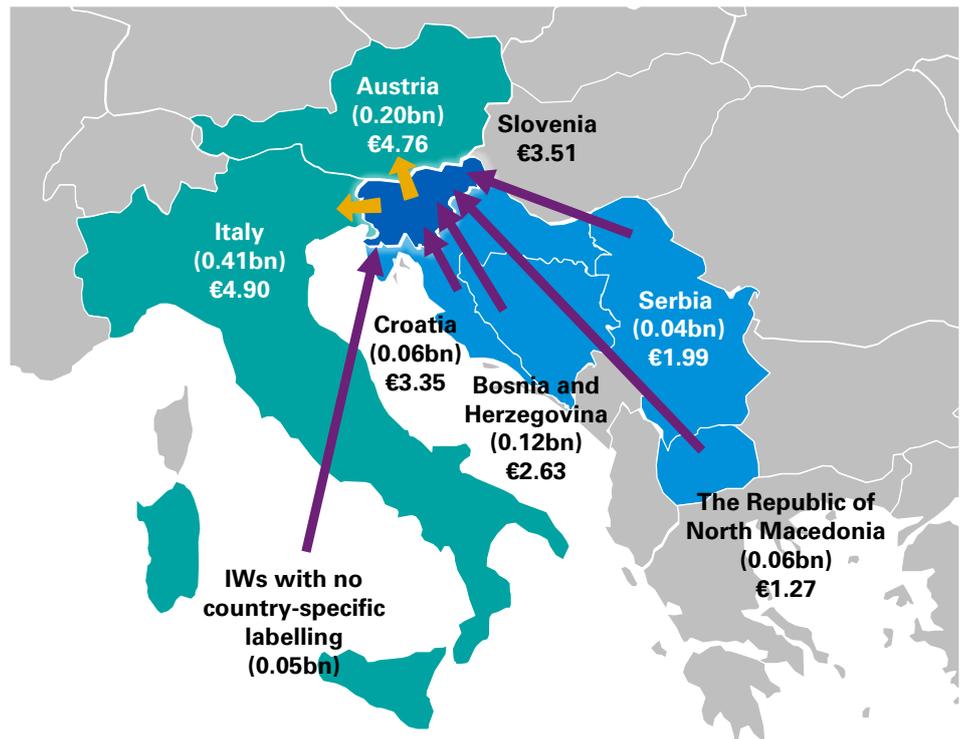
Note: The inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows
 Source: KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

Key flows and C&C consumption patterns

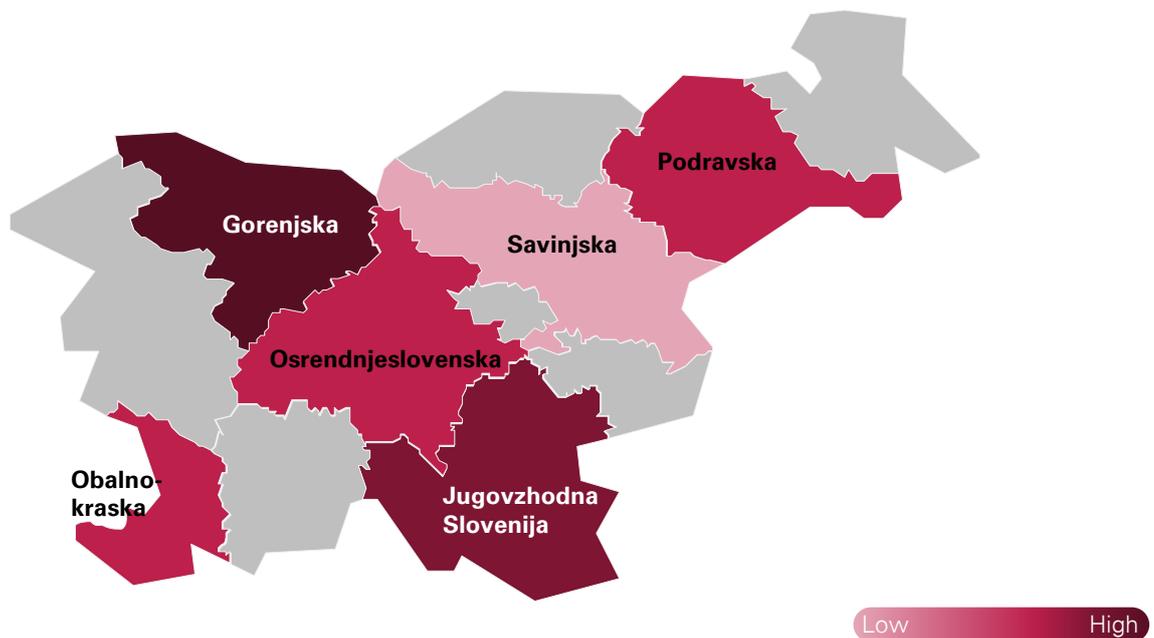
Key inflows and outflows

- Slovenia
- Source
- Destination
- Inflow
- Outflow

Label description:
Country (Inflow/
Outflow Volume)
WAP



C&C consumption by region^(a)

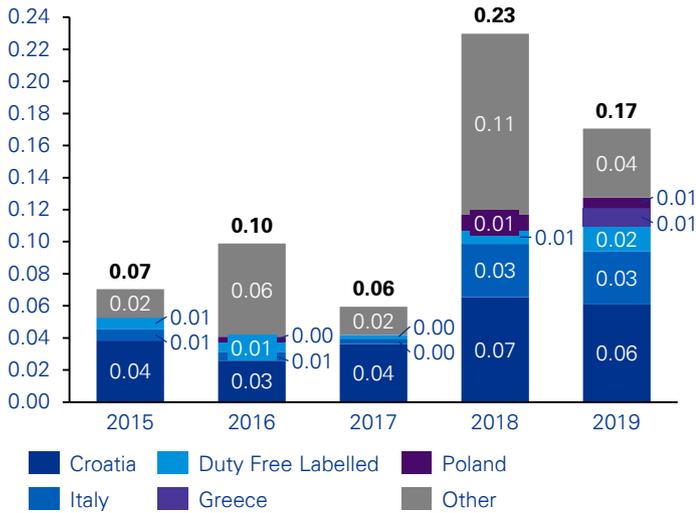


Note: (a) C&C scale is relative to this market and is not comparable with other markets in the study

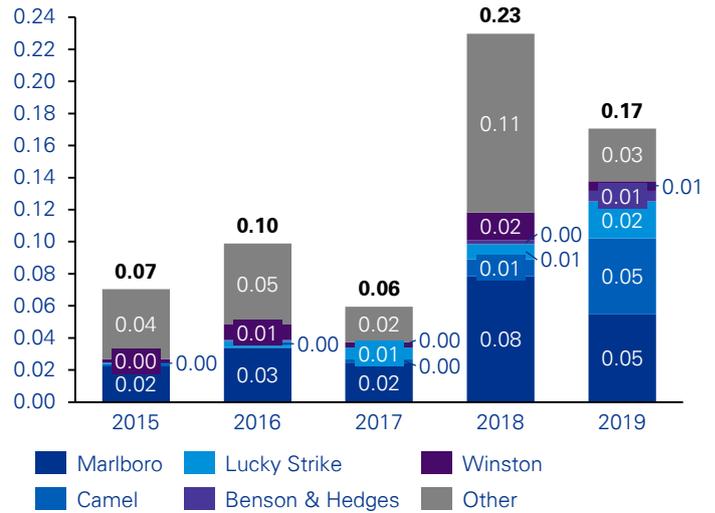
Source: (1) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

ND(L) and C&C flows

ND(L) by country of origin – 2015-2019 (bn cigarettes)

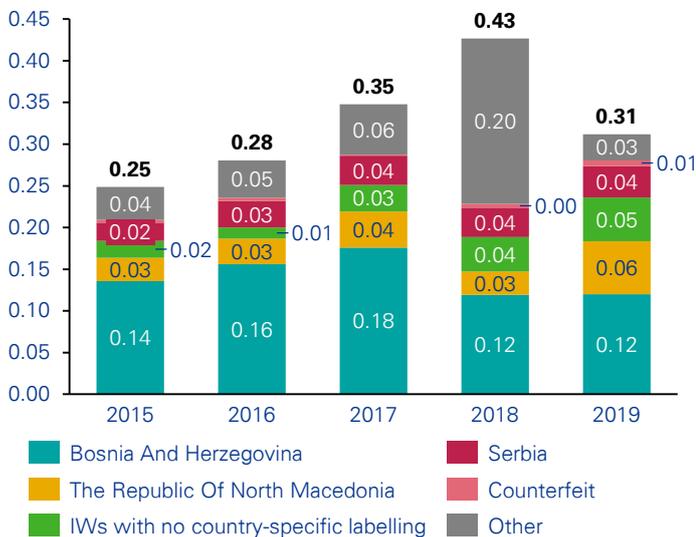


ND(L) by brand – 2015-2019 (bn cigarettes)

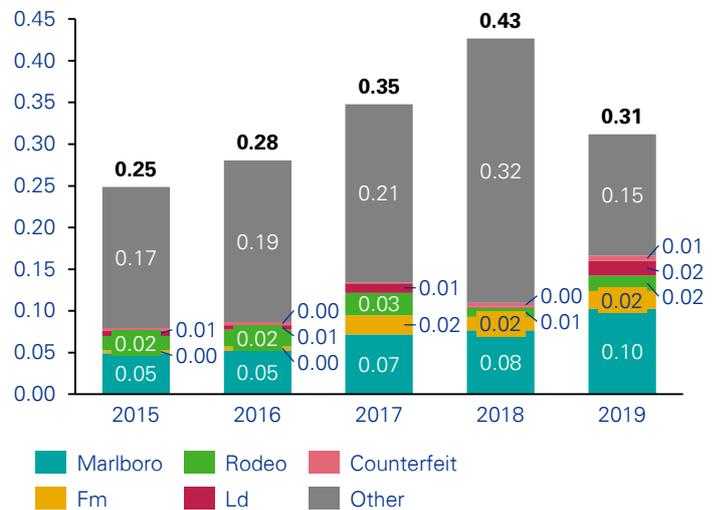


— Decreased inflows of both non-domestic legal and C&C were driven by declines from a number of small sources within the 'Other' category

C&C by country of origin – 2015-2019 (bn cigarettes)



C&C by brand – 2015-2019 (bn cigarettes)

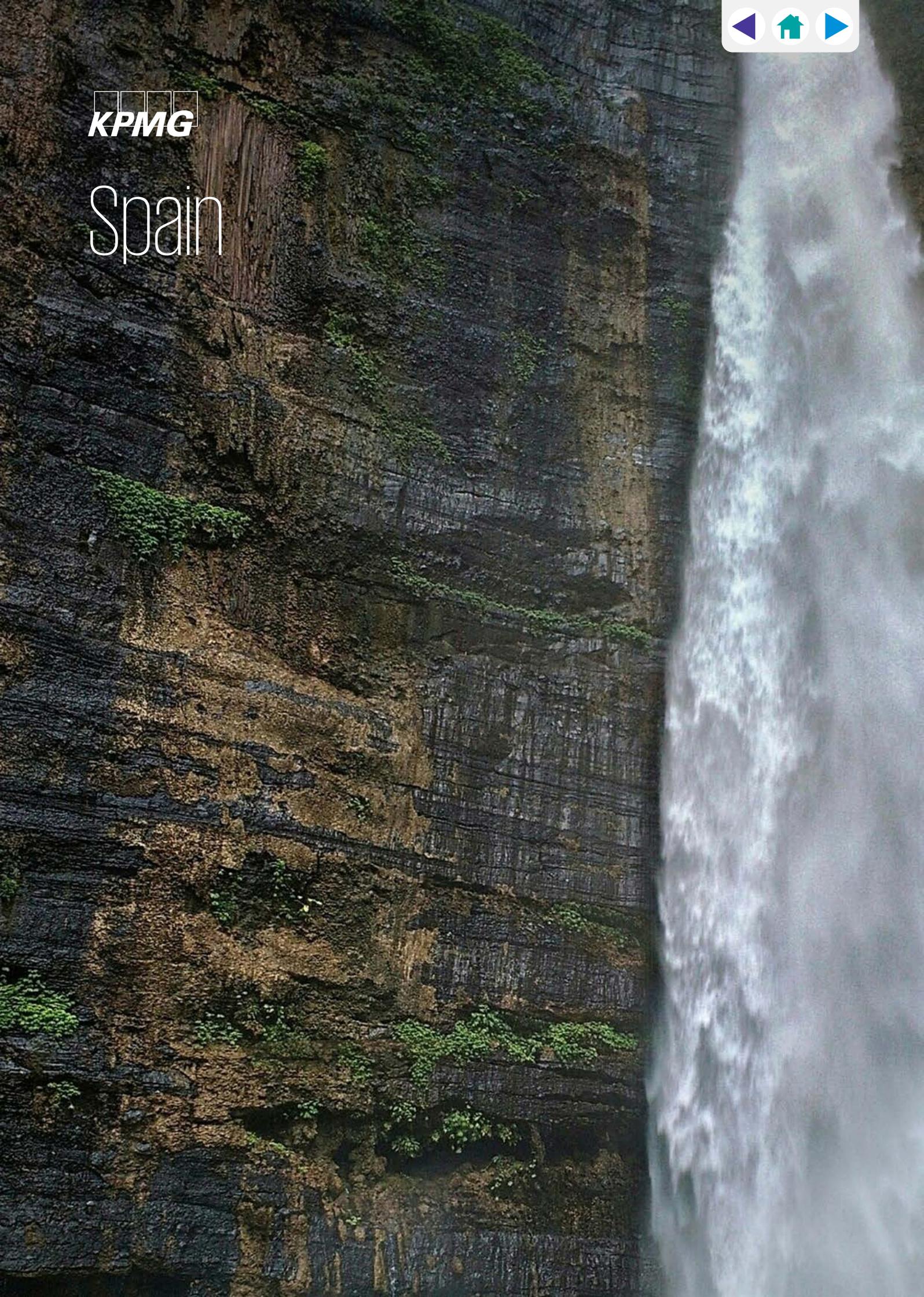


Source: (1) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section



KPMG

Spain





C&C cigarette consumption and total consumption

41.7bn

Cigarettes consumed



-0.77bn on 2018

1.5bn

C&C cigarettes consumed



-0.34bn on 2018

3.6%

Of total consumption was C&C



-0.73%pts on 2018

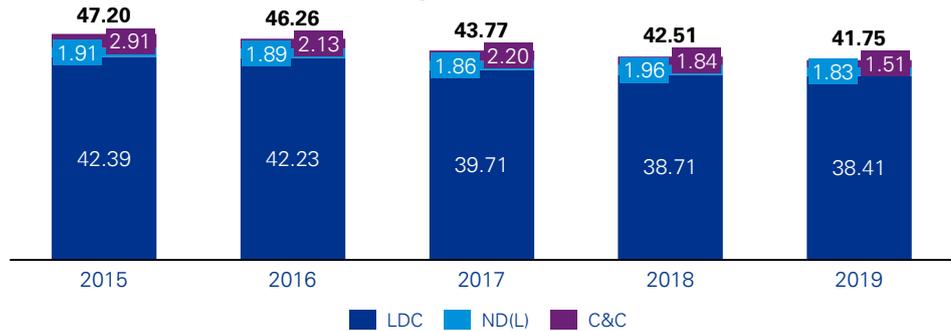
€270m

Total tax revenue lost from C&C



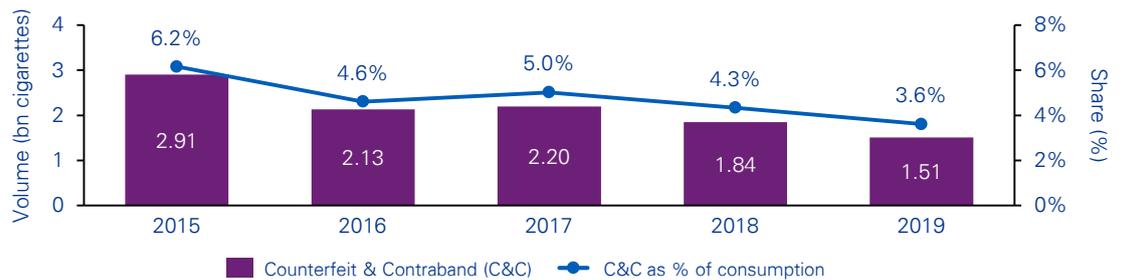
-€61m on 2018

Total consumption – 2015-2019 (bn cigarettes)

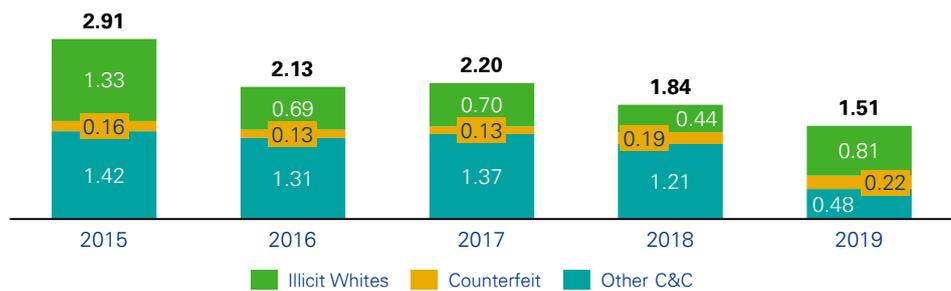


- C&C declined to 3.6% of total cigarette consumption in 2019, continuing the trend seen since 2015
- Total cigarette consumption decreased marginally with declines in both domestic and non-domestic consumption
- Flows of Illicit Whites almost doubled in 2019, making them the largest element of C&C consumption, whilst flows of other C&C declined

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2015-2019



Breakdown of C&C consumption by type – 2015-2019 (bn cigarettes)



Note: C&C breakdown chart only includes counterfeit volumes related to brands of manufacturers who participate in the empty pack/yellow bag surveys. Total tax revenue lost represents estimated excise and VAT if C&C volumes had been consumed legally in the country of study

Source: KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2015-2019

Total Spain Consumption						
Billion cigarettes	2015	2016	2017	2018	2019	2018-19 (%)
Legal Domestic Sales (LDS)	46.50	46.47	44.75	44.62	45.02	1%
Outflows	(4.11)	(4.24)	(5.04)	(5.91)	(6.61)	12%
Legal Domestic Consumption (LDC)	42.39	42.23	39.71	38.71	38.41	(1%)
Non-Domestic Legal (ND(L))	1.91	1.89	1.86	1.96	1.83	(7%)
Counterfeit and Contraband (C&C)	2.91	2.13	2.20	1.84	1.51	(18%)
Total Non-Domestic	4.82	4.02	4.06	3.80	3.33	(12%)
Total Consumption	47.20	46.25	43.77	42.51	41.75	(2%)

- Gibraltar remains the largest inflow to Spain, two-thirds of which is considered legal due to traveller volumes
- Outflows increased to 6.61bn in 2019 largely driven by increased flows to France against a backdrop of French price rises, and tourism related flows to the UK

Total inflows by country of origin – 2015-2019

Inflows to Spain						
Billion cigarettes	2015	2016	2017	2018	2019	
Gibraltar	0.89	0.85	1.41	1.58	1.48	
IWs with no country-specific labelling	0.82	0.58	0.65	0.50	0.59	
Andorra	0.70	0.55	0.46	0.32	0.27	
Counterfeit	0.16	0.12	0.13	0.19	0.22	
Duty Free Labelled	0.82	0.62	0.39	0.34	0.20	
Other	1.42	1.30	1.02	0.87	0.57	
Total Inflows	4.82	4.02	4.06	3.80	3.33	

Total outflows by country of origin – 2015-2019

Outflows from Spain						
Billion cigarettes	2015	2016	2017	2018	2019	
France	(2.70)	(2.63)	(2.84)	(3.61)	(4.08)	
UK	(0.91)	(1.08)	(1.49)	(1.51)	(1.66)	
Other	(0.50)	(0.54)	(0.70)	(0.79)	(0.87)	
Total Outflows	(4.11)	(4.24)	(5.04)	(5.91)	(6.61)	

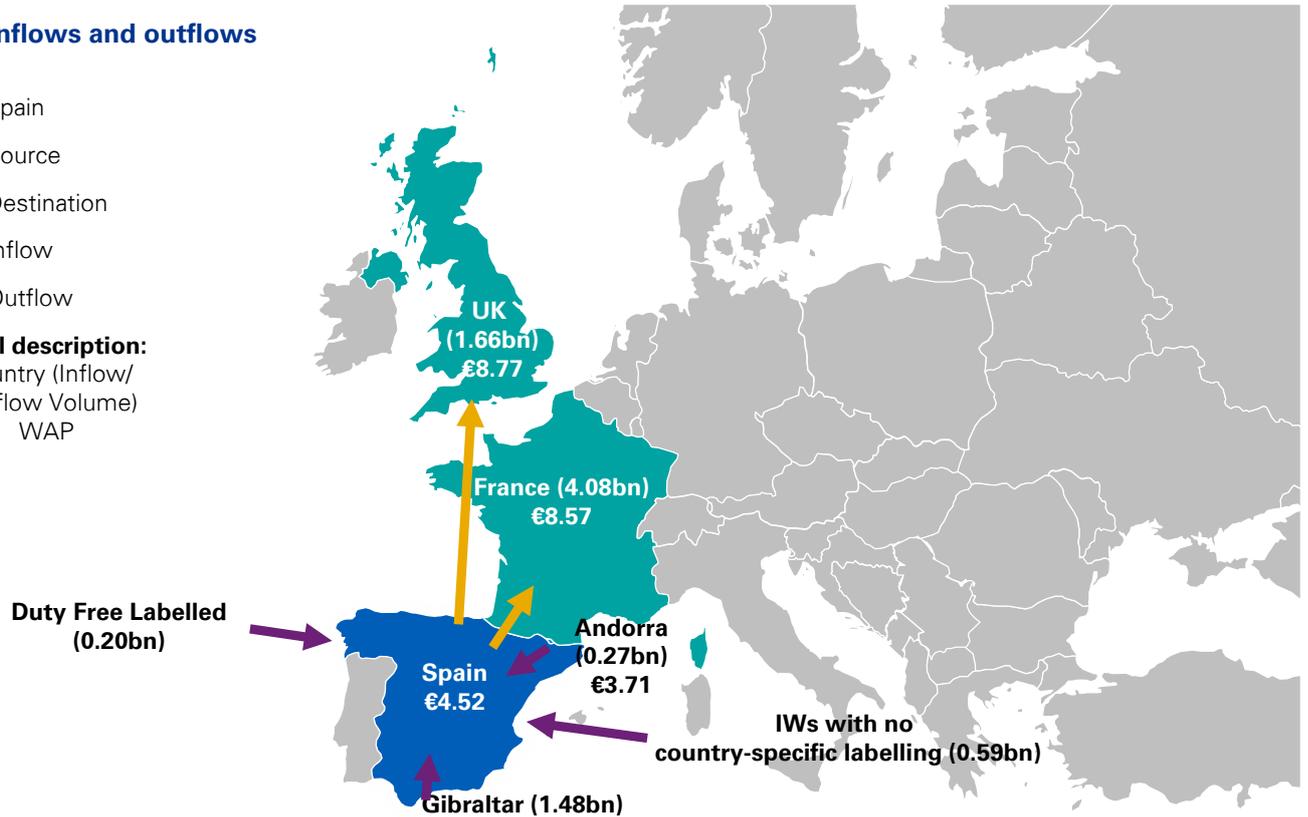
Note: The inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows
 Source: KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

Key flows and C&C consumption patterns

Key inflows and outflows

- Spain
- Source
- Destination
- ↑ Inflow
- ↑ Outflow

Label description:
Country (Inflow/
Outflow Volume)
WAP



C&C consumption by region^(a)

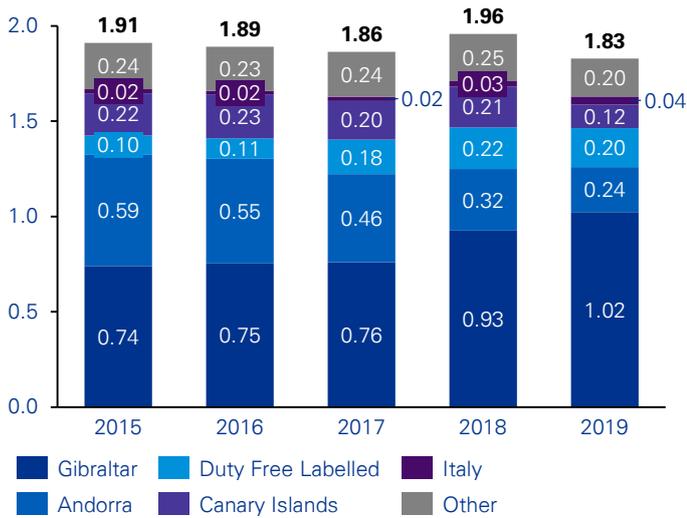


Note: (a) C&C scale is relative to this market and is not comparable with other markets in the study

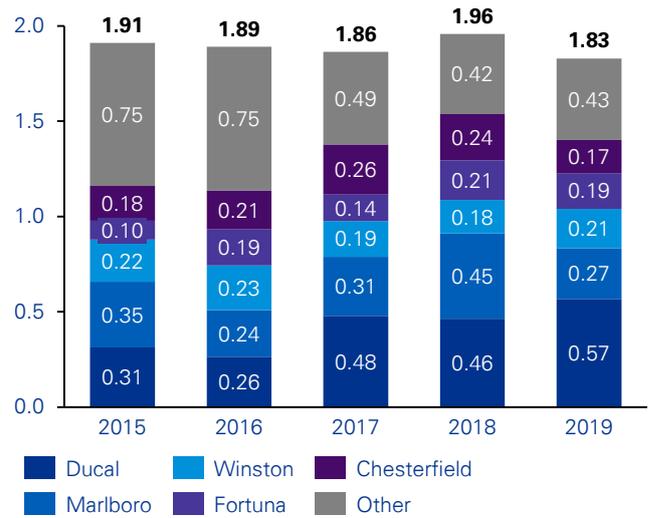
Source: (1) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

ND(L) and C&C flows

ND(L) by country of origin – 2015-2019 (bn cigarettes)

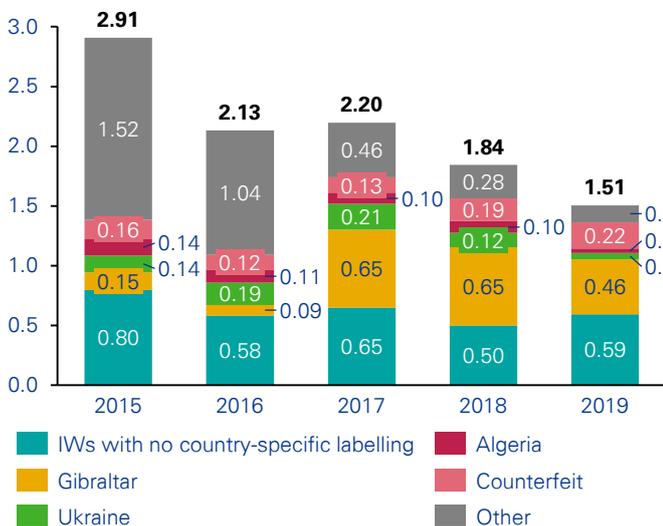


ND(L) by brand – 2015-2019 (bn cigarettes)

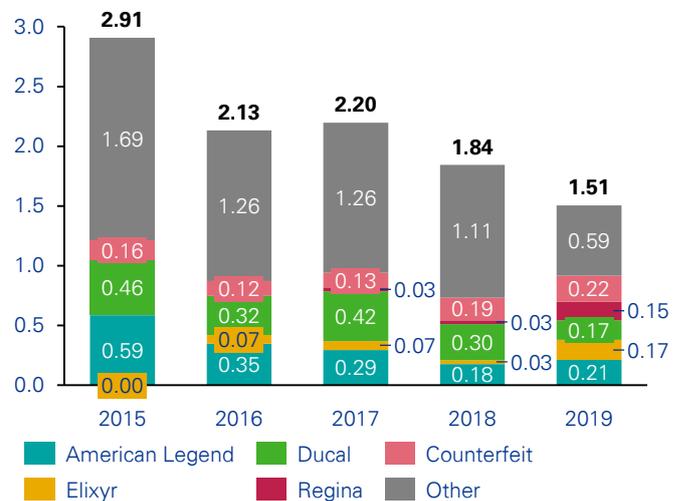


— The highest regional C&C was in Andalucía in the South of the country

C&C by country of origin – 2015-2019 (bn cigarettes)



C&C by brand – 2015-2019 (bn cigarettes)



Source: (1) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section



KPMG

Sweden





C&C cigarette consumption and total consumption

5.8bn

Cigarettes consumed



+0.07bn on 2018

0.6bn

C&C cigarettes consumed



+0.27bn on 2018

9.6%

Of total consumption was C&C



+4.62%pts on 2018

€118m

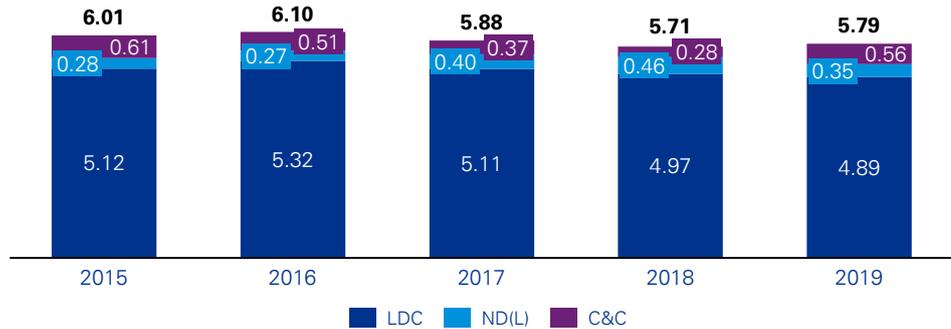
(SEK1,241m)⁽¹⁾

Total tax revenue lost from C&C



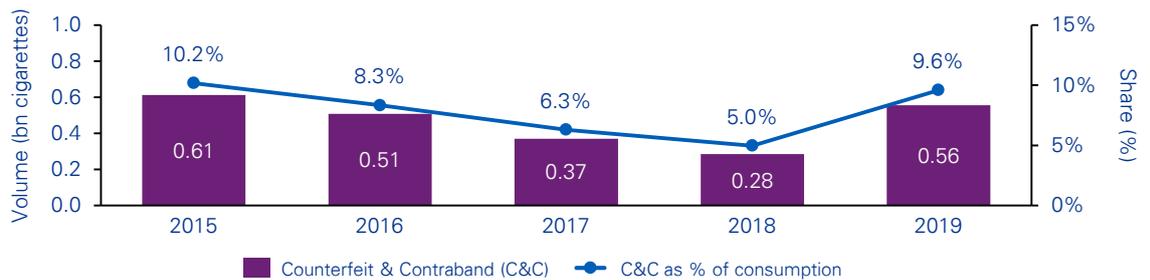
+€54m on 2018

Total consumption – 2015-2019 (bn cigarettes)

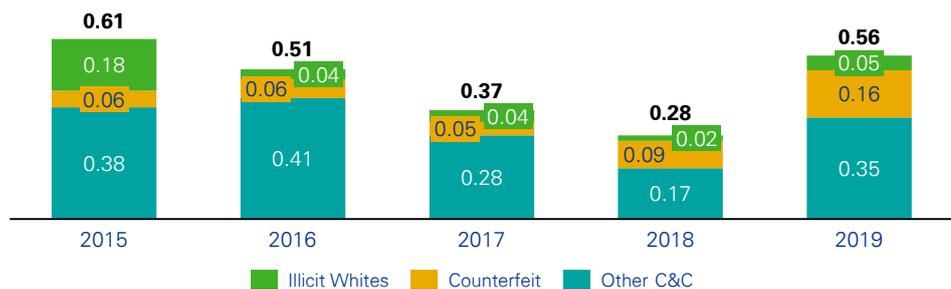


- C&C reversed its long term declining trend in 2019, rising to 9.6% of cigarette consumption driven by increased counterfeit and Polish flows
- Overall total cigarette consumption remained broadly stable

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2015-2019



Breakdown of C&C consumption by type – 2015-2019 (bn cigarettes)



Note: C&C breakdown chart only includes counterfeit volumes related to brands of manufacturers who participate in the empty pack/yellow bag surveys. Total tax revenue lost represents estimated excise and VAT if C&C volumes had been consumed legally in the country of study

Source: (1) EUR 1 = SEK 10.55, InforEuro, European Commission, December 2019; (2) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

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Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2015-2019

Total Sweden Consumption						
Billion cigarettes	2015	2016	2017	2018	2019	2018-19 (%)
Legal Domestic Sales (LDS)	5.66	5.72	5.58	5.31	5.18	(3%)
Outflows	(0.54)	(0.40)	(0.47)	(0.34)	(0.29)	(15%)
Legal Domestic Consumption (LDC)	5.12	5.32	5.11	4.97	4.89	(2%)
Non-Domestic Legal (ND(L))	0.28	0.27	0.40	0.46	0.35	(25%)
Counterfeit and Contraband (C&C)	0.61	0.51	0.37	0.28	0.56	95%
Total Non-Domestic	0.90	0.78	0.77	0.74	0.90	21%
Total Consumption	6.01	6.10	5.88	5.71	5.79	1%

- Duty Free remained the largest inflow as Duty Free can be purchased travelling to neighbouring Norway, or on ferry services to the island of Aaland
- Sweden is a popular cross-border shopping destination for Norwegians. As such Norway remains the largest outflow country for Sweden, representing over half of total outflows

Total inflows by country of origin – 2015-2019

Inflows to Sweden					
Billion cigarettes	2015	2016	2017	2018	2019
Duty Free Labelled	0.24	0.30	0.27	0.23	0.26
Counterfeit	0.06	0.06	0.05	0.09	0.16
Poland	0.09	0.04	0.02	0.05	0.10
Latvia	0.01	0.01	0.02	0.01	0.04
Romania	0.01	0.01	0.02	0.01	0.03
Other	0.49	0.36	0.40	0.35	0.31
Total Inflows	0.90	0.78	0.77	0.74	0.90

Total outflows by country of origin – 2015-2019

Outflows from Sweden					
Billion cigarettes	2015	2016	2017	2018	2019
Norway	(0.37)	(0.30)	(0.31)	(0.21)	(0.16)
Denmark	(0.05)	(0.04)	(0.07)	(0.03)	(0.08)
Other	(0.12)	(0.06)	(0.09)	(0.10)	(0.04)
Total Outflows	(0.54)	(0.40)	(0.47)	(0.34)	(0.29)

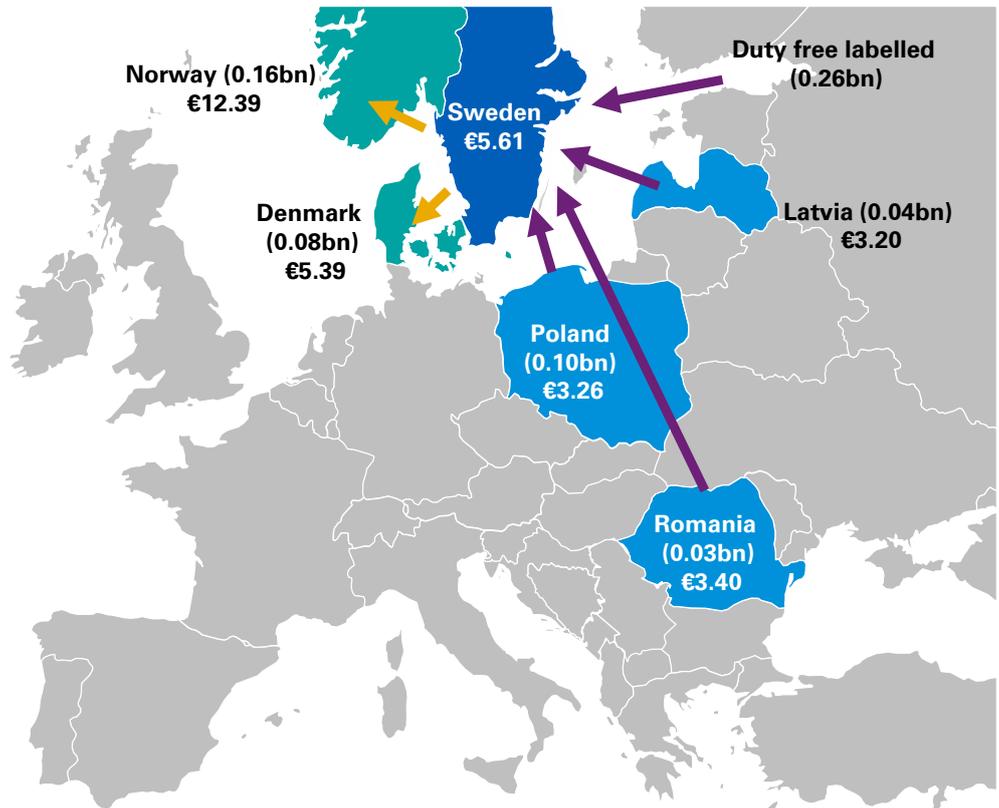
Note: The inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows
 Source: KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

Key flows and C&C consumption patterns

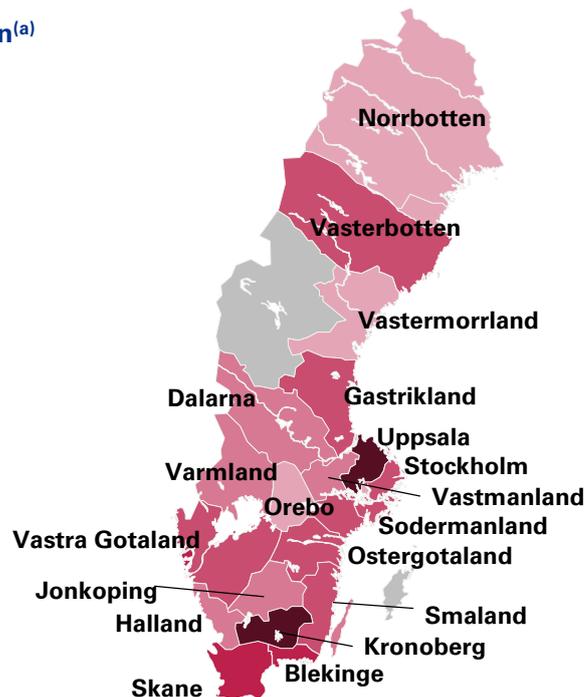
Key inflows and outflows

- Sweden
- Source
- Destination
- Inflow
- Outflow

Label description:
Country (Inflow/
Outflow Volume)
WAP



C&C consumption by region^(a)

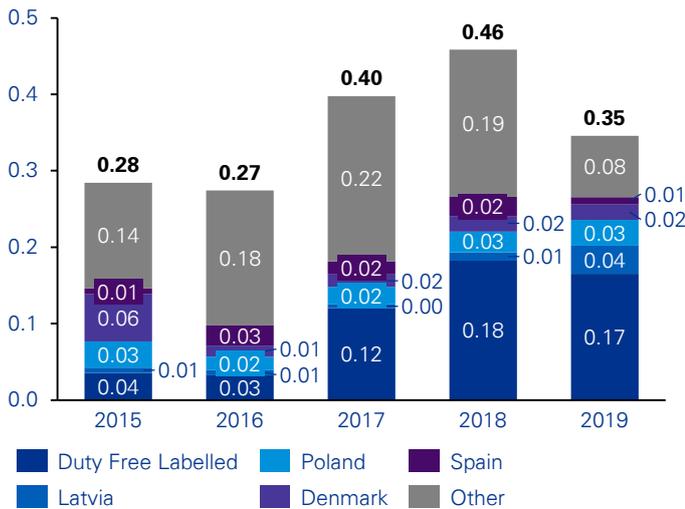


Note: (a) C&C scale is relative to this market and is not comparable with other markets in the study

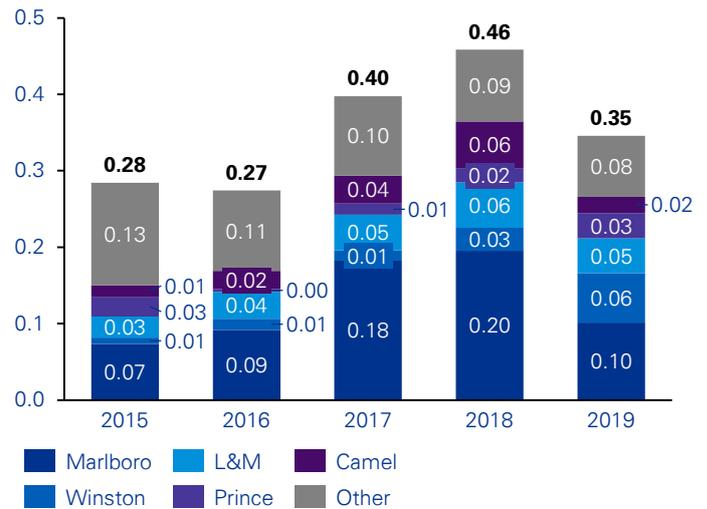
Source: (1) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

ND(L) and C&C flows

ND(L) by country of origin – 2015-2019 (bn cigarettes)

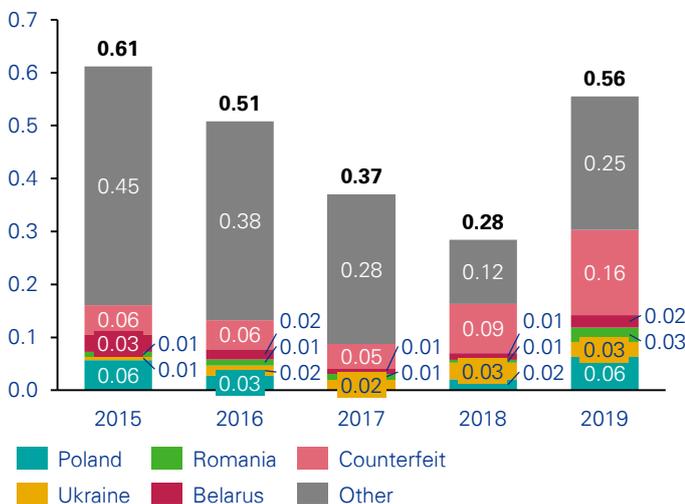


ND(L) by brand – 2015-2019 (bn cigarettes)

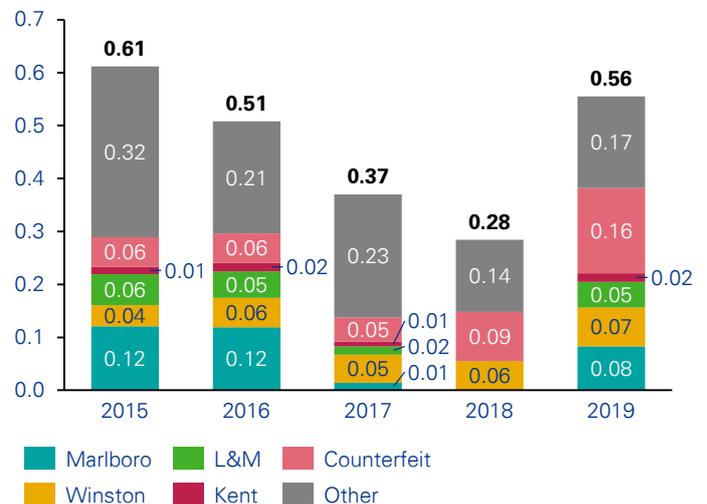


— Increased C&C in 2019 was principally driven by higher Polish and counterfeit flows

C&C by country of origin – 2015-2019 (bn cigarettes)



C&C by brand – 2015-2019 (bn cigarettes)



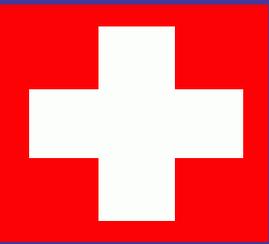
Source: (1) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section



KPMG

Switzerland





C&C cigarette consumption and total consumption

9.8bn

Cigarettes consumed



-0.04bn on 2018

0.3bn

C&C cigarettes consumed



+0.08bn on 2018

2.8%

Of total consumption was C&C



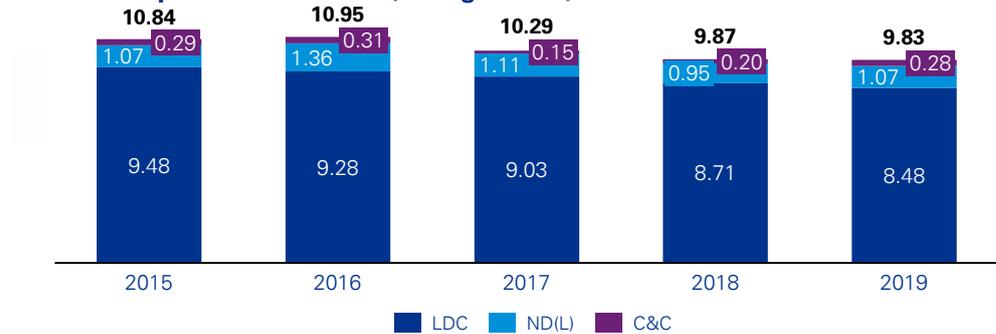
+0.80%pts on 2018

€66m

(CHF73m)⁽¹⁾

Total tax revenue lost from C&C

Total consumption – 2015-2019 (bn cigarettes)

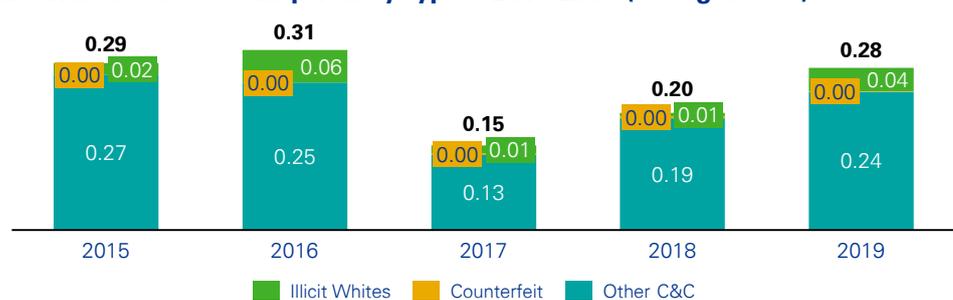


- C&C increased to 2.8% of total cigarette consumption in 2019. Despite this increase, Switzerland has one of the lowest C&C incidences in this study
- Total consumption remained stable in 2019 as declining domestic consumption was offset by increasing inflows from neighbouring countries, primarily France

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2015-2019



Breakdown of C&C consumption by type – 2015-2019 (bn cigarettes)



Note: C&C breakdown chart only includes counterfeit volumes related to brands of manufacturers who participate in the empty pack/yellow bag surveys. Total tax revenue lost represents estimated excise and VAT if C&C volumes had been consumed legally in the country of study

Source: (1) EUR 1 = CHF 1.10, InforEuro, European Commission, December 2019; (2) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

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Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2015-2019

Total Switzerland Consumption						
Billion cigarettes	2015	2016	2017	2018	2019	2018-19 (%)
Legal Domestic Sales (LDS)	9.76	9.48	9.33	9.07	8.77	(3%)
Outflows	(0.28)	(0.20)	(0.30)	(0.35)	(0.29)	(18%)
Legal Domestic Consumption (LDC)	9.48	9.28	9.03	8.71	8.48	(3%)
Non-Domestic Legal (ND(L))	1.07	1.36	1.11	0.95	1.07	12%
Counterfeit and Contraband (C&C)	0.29	0.31	0.15	0.20	0.28	38%
Total Non-Domestic	1.36	1.67	1.26	1.16	1.35	17%
Total Consumption	10.84	10.95	10.29	9.87	9.83	(0%)

- Duty Free remains the largest source of non-domestic inflows. As Switzerland is not in the EU, travellers can purchase Duty Free cigarettes in Swiss airports
- The neighbouring markets of France and Germany are also major inflow sources, driven by high tourism volumes and cross-border working, with cross-border workers from France reaching record numbers in 2019⁽¹⁾. As a result these flows are considered predominately legal

Total inflows by country of origin – 2015-2019

Inflows to Switzerland					
Billion cigarettes	2015	2016	2017	2018	2019
Duty Free Labelled	0.37	0.53	0.51	0.38	0.34
France	0.09	0.28	0.07	0.07	0.29
Germany	0.26	0.22	0.21	0.19	0.21
Italy	0.18	0.11	0.14	0.10	0.06
Kosovo	0.03	0.02	0.02	0.02	0.05
Other	0.44	0.50	0.31	0.40	0.40
Total Inflows	1.36	1.67	1.26	1.16	1.35

Total outflows by country of origin – 2015-2019

Outflows from Switzerland					
Billion cigarettes	2015	2016	2017	2018	2019
France	(0.03)	(0.04)	(0.07)	(0.08)	(0.09)
Germany	(0.10)	(0.05)	(0.06)	(0.06)	(0.07)
Netherlands	(0.04)	(0.03)	(0.05)	(0.06)	(0.04)
Italy	(0.04)	(0.01)	(0.01)	(0.08)	(0.03)
Ireland	(0.01)	(0.01)	(0.02)	(0.00)	(0.02)
Other	(0.06)	(0.07)	(0.09)	(0.08)	(0.05)
Total Outflows	(0.28)	(0.20)	(0.30)	(0.35)	(0.29)

Note: The inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows

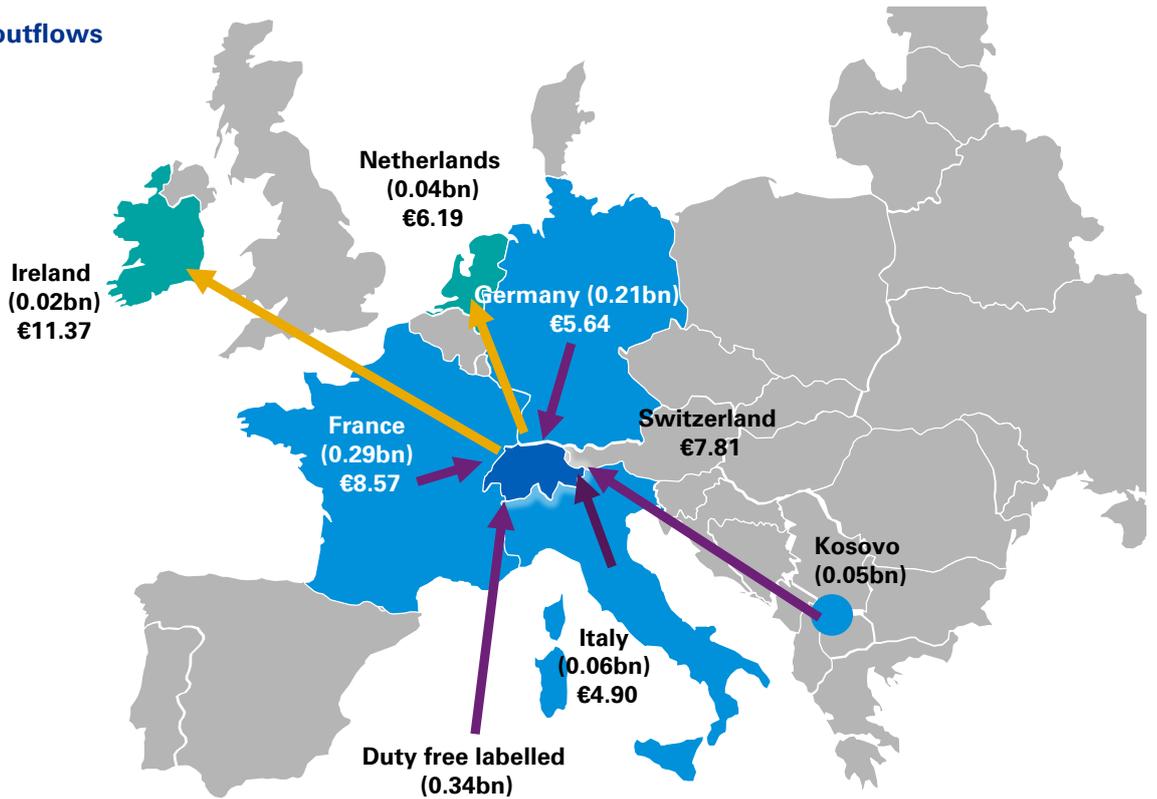
Source: (1) "Switzerland sees record number of cross-border workers", swissinfo.ch, 13 November 2019; (2) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

Key flows and C&C consumption patterns

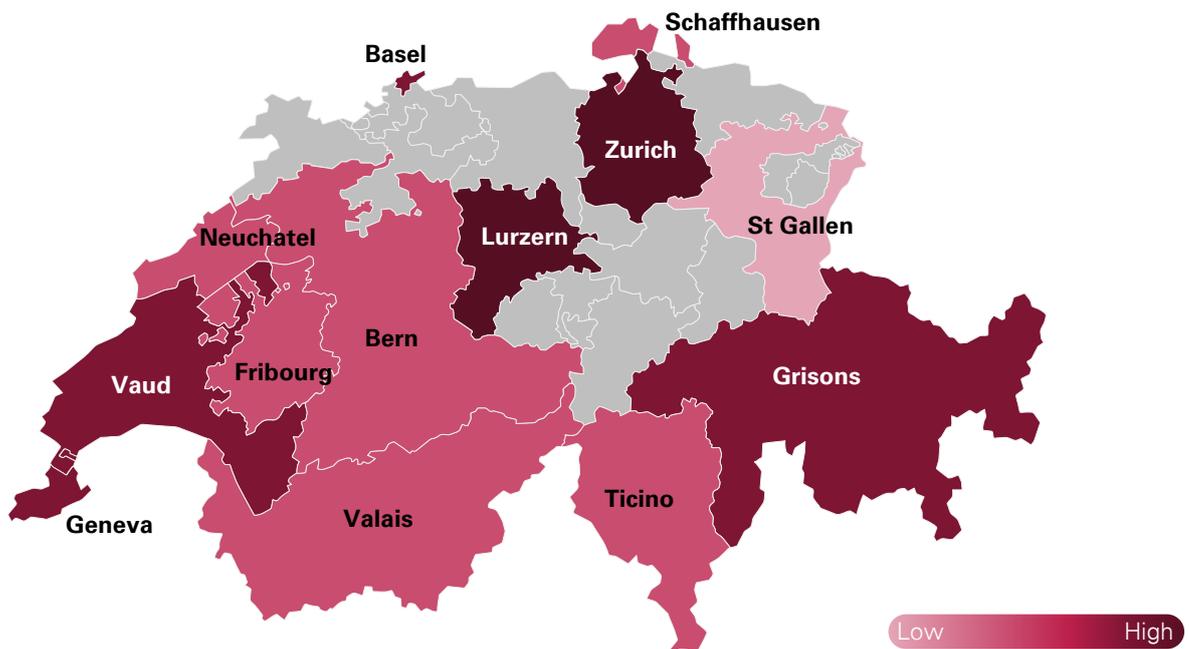
Key inflows and outflows

- Switzerland
- Source
- Destination
- Inflow
- Outflow

Label description:
Country (Inflow/
Outflow Volume)
WAP



C&C consumption by region^(a)

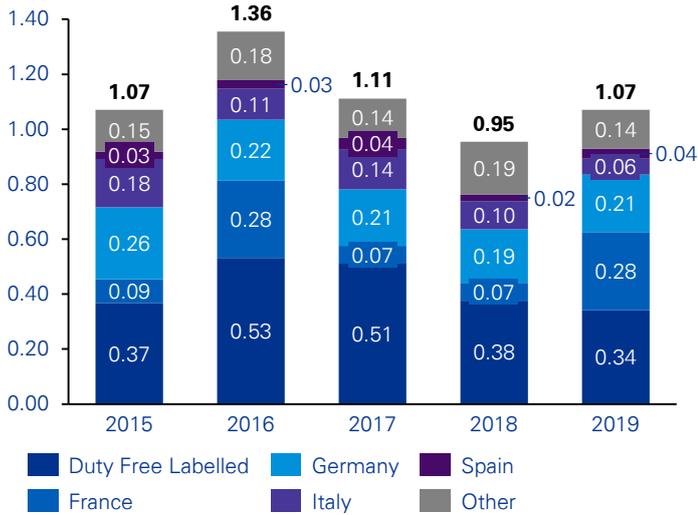


Note: (a) C&C scale is relative to this market and is not comparable with other markets in the study

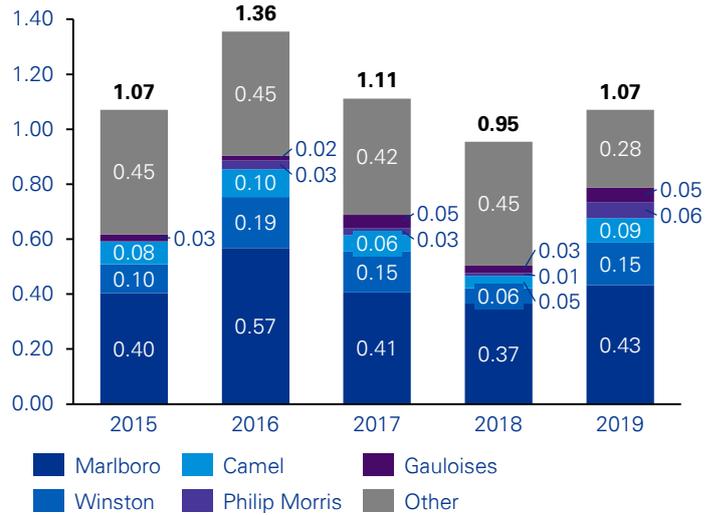
Source: (1) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

ND(L) and C&C flows

ND(L) by country of origin – 2015-2019 (bn cigarettes)

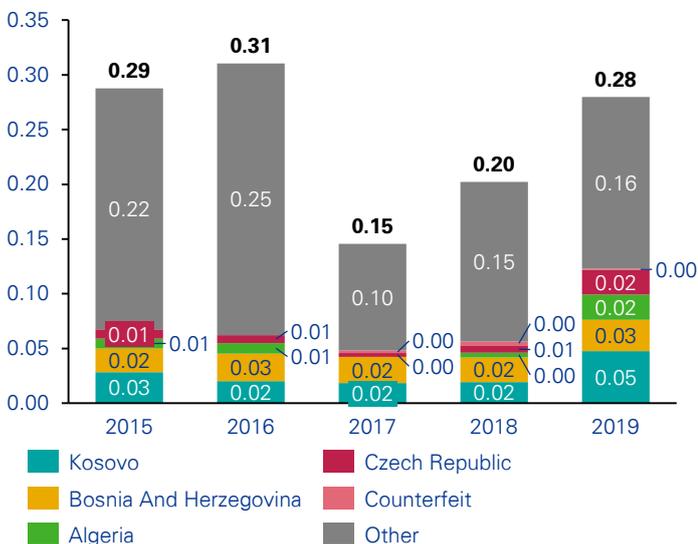


ND(L) by brand – 2015-2019 (bn cigarettes)

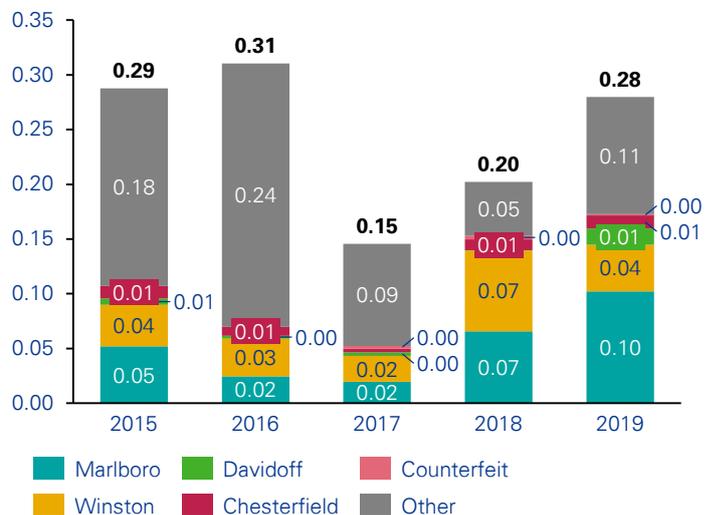


- Increased inflows from France supported non-domestic legal growth in 2019
- C&C flows increased from a number of sources in 2019 with the largest C&C source being Kosovo
- Zurich and Luzern showed the highest regional C&C incidence

C&C by country of origin – 2015-2019 (bn cigarettes)



C&C by brand – 2015-2019 (bn cigarettes)

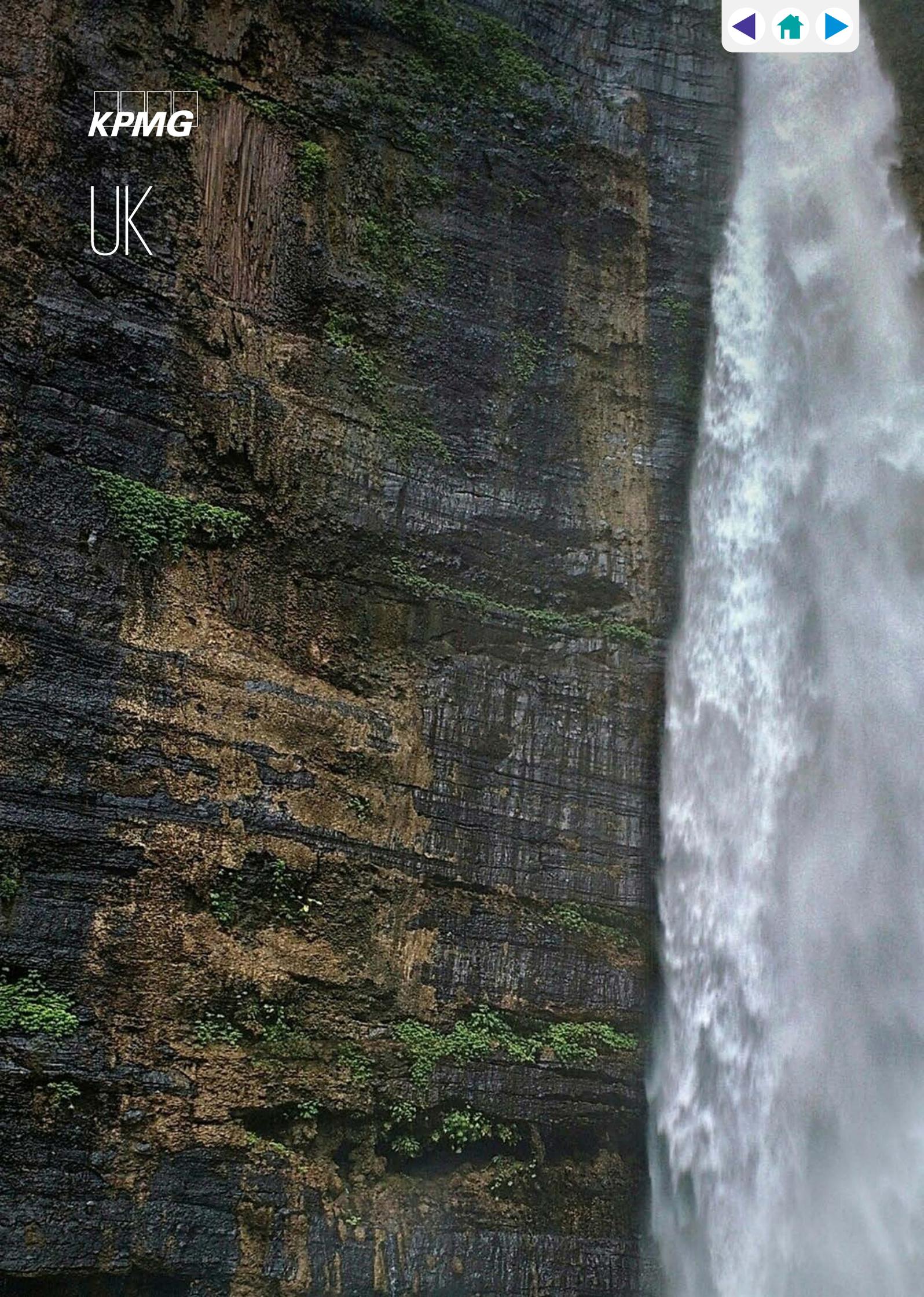


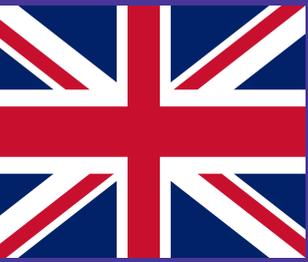
Source: (1) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section



KPMG

UK





C&C cigarette consumption and total consumption

32.8bn

Cigarettes consumed



-3.88bn on 2018

5.5bn

C&C cigarettes consumed



-1.61bn on 2018

16.6%

Of total consumption was C&C



-2.64%pts on 2018

€2,191m

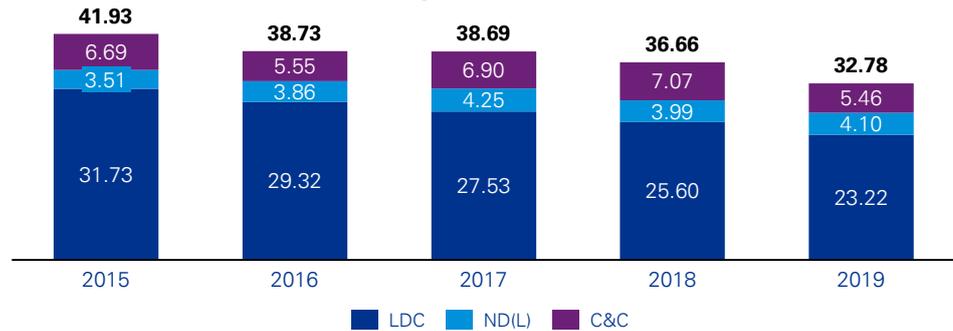
(£1,867m)

Total tax revenue lost from C&C



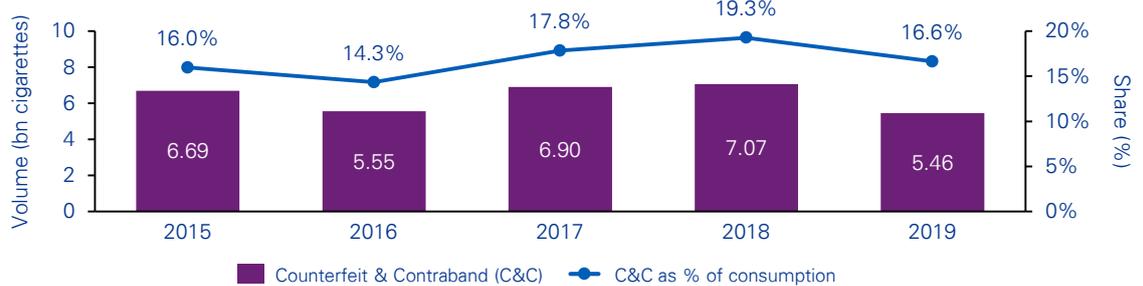
-€581m on 2018

Total consumption – 2015-2019 (bn cigarettes)

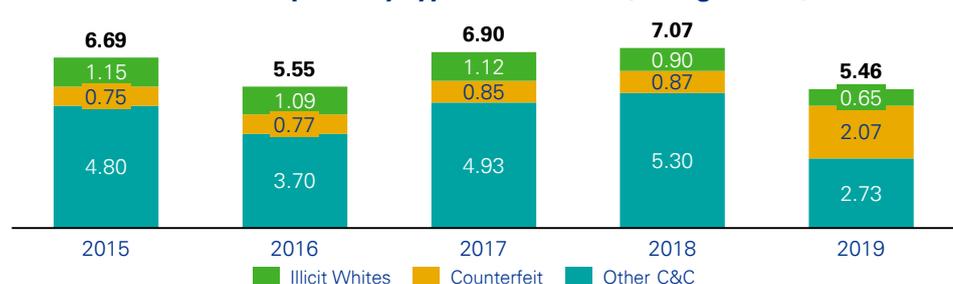


- C&C declined to 16.6% of total cigarette consumption in 2019. However, counterfeit volumes more than doubled, leading to the UK having the highest counterfeit volume in this year's study
- Counterfeit and Illicit Whites flows now form over 50% of total C&C in the UK for the first time
- Total cigarette consumption declined by 11% in 2019, with an accelerating decline supported by switching to smokeless products, such as e-cigarettes⁽¹⁾

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2015-2019



Breakdown of C&C consumption by type – 2015-2019 (bn cigarettes)



Note: C&C breakdown chart only includes counterfeit volumes related to brands of manufacturers who participate in the empty pack/yellow bag surveys. Total tax revenue lost represents estimated excise and VAT if C&C volumes had been consumed legally in the country of study

Source: (1) 'Cigarettes in Western Europe', Euromonitor, October 2019; (2) EUR 1 = GBP 0.85, InforEuro, European Commission, December 2019; (3) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2015-2019

Total UK Consumption						
Billion cigarettes	2015	2016	2017	2018	2019	2018-19 (%)
Legal Domestic Sales (LDS)	32.06	29.64	27.92	25.99	23.54	(9%)
Outflows	(0.33)	(0.32)	(0.39)	(0.39)	(0.32)	(18%)
Legal Domestic Consumption (LDC)	31.73	29.32	27.53	25.60	23.22	(9%)
Non-Domestic Legal (ND(L))	3.51	3.86	4.25	3.99	4.10	3%
Counterfeit and Contraband (C&C)	6.69	5.55	6.90	7.07	5.46	(23%)
Total Non-Domestic	10.20	9.41	11.16	11.06	9.56	(14%)
Total Consumption	41.93	38.73	38.69	36.66	32.78	(11%)

- For the first time in 2019, counterfeit was the largest non-domestic source of cigarettes. The majority of counterfeit was the UK domestic variant, including some in plain packaging
- Spain, Duty Free and Poland remain major inflow sources linked to tourism and travel trends, albeit the Polish flow decreased in 2019 alongside declining traveller numbers

Total inflows by country of origin – 2015-2019

Inflows to UK						
Billion cigarettes	2015	2016	2017	2018	2019	
Counterfeit	0.75	0.77	0.85	0.87	2.07	
Spain	0.91	1.08	1.49	1.51	1.66	
Duty Free Labelled	1.99	1.22	1.62	1.28	1.37	
Poland	1.38	1.51	1.39	1.51	1.14	
Ukraine	0.13	0.32	0.92	1.42	0.55	
Other	5.04	4.51	4.88	4.46	2.77	
Total Inflows	10.20	9.41	11.16	11.06	9.56	

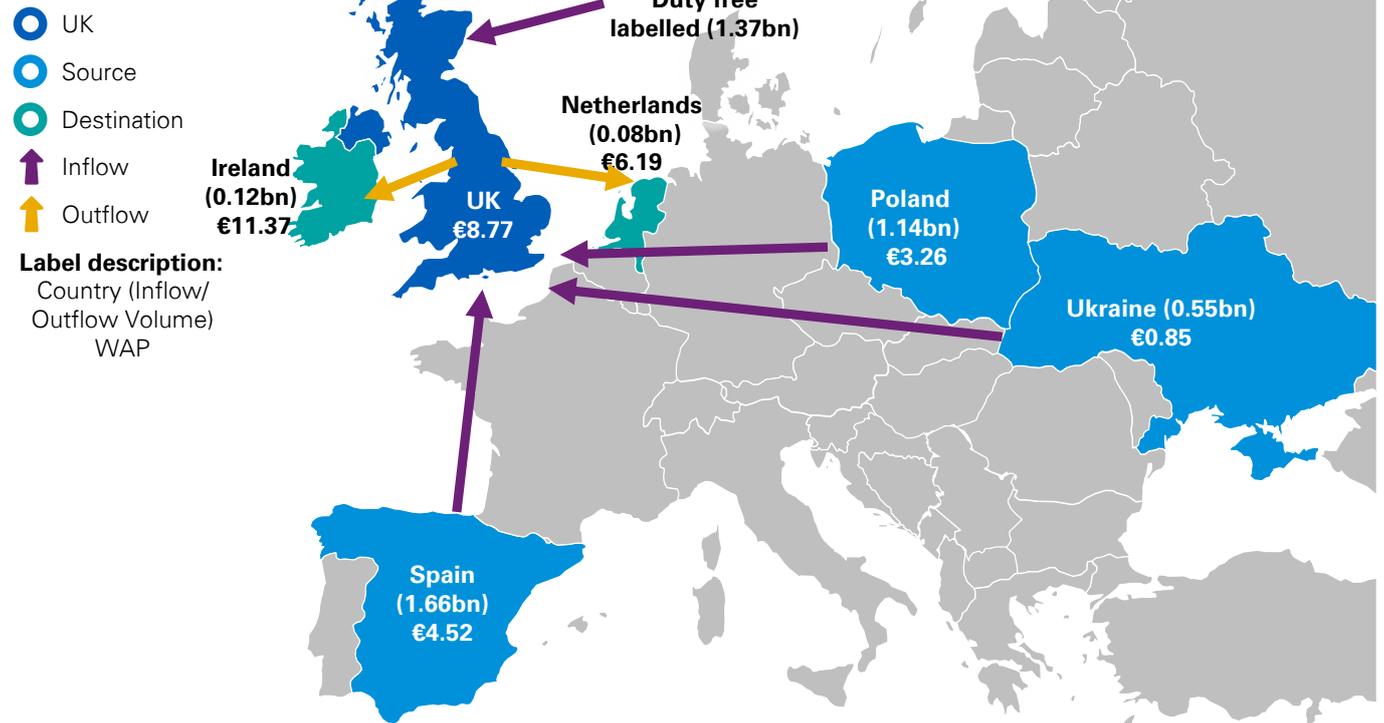
Total outflows by country of origin – 2015-2019

Outflows from UK						
Billion cigarettes	2015	2016	2017	2018	2019	
Ireland	(0.08)	(0.12)	(0.12)	(0.06)	(0.12)	
Netherlands	(0.16)	(0.11)	(0.13)	(0.16)	(0.08)	
Italy	(0.02)	(0.00)	(0.00)	(0.02)	(0.02)	
Denmark	(0.00)	(0.00)	(0.01)	(0.01)	(0.02)	
Germany	(0.01)	(0.01)	(0.03)	(0.03)	(0.02)	
Other	(0.06)	(0.08)	(0.10)	(0.11)	(0.06)	
Total Outflows	(0.33)	(0.32)	(0.39)	(0.39)	(0.32)	

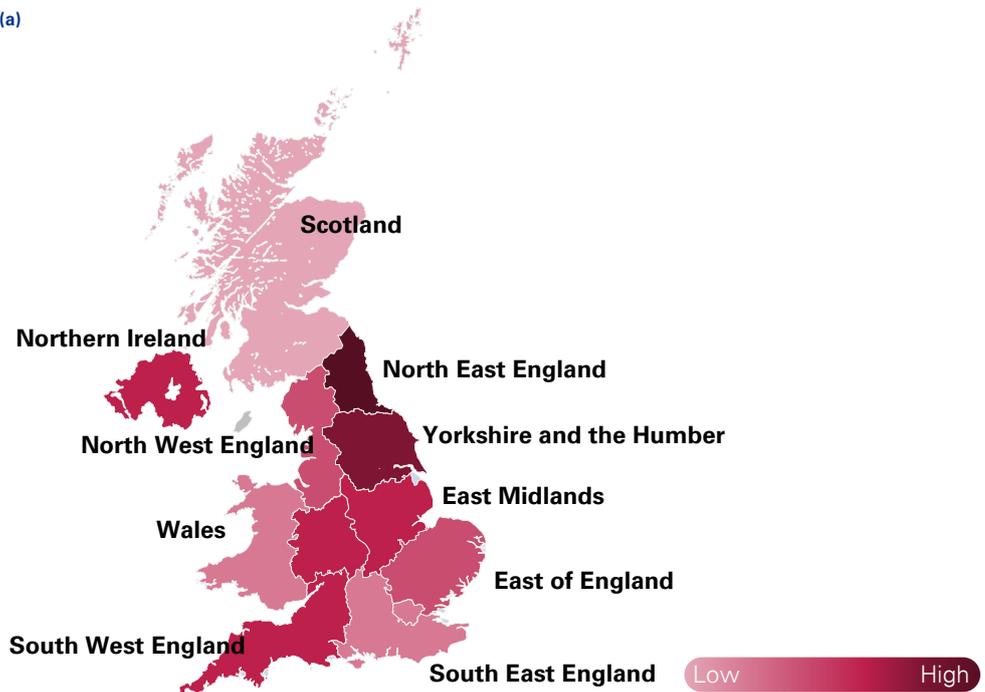
Note: The inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows
Source: KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

Key flows and C&C consumption patterns

Key inflows and outflows



C&C consumption by region^(a)

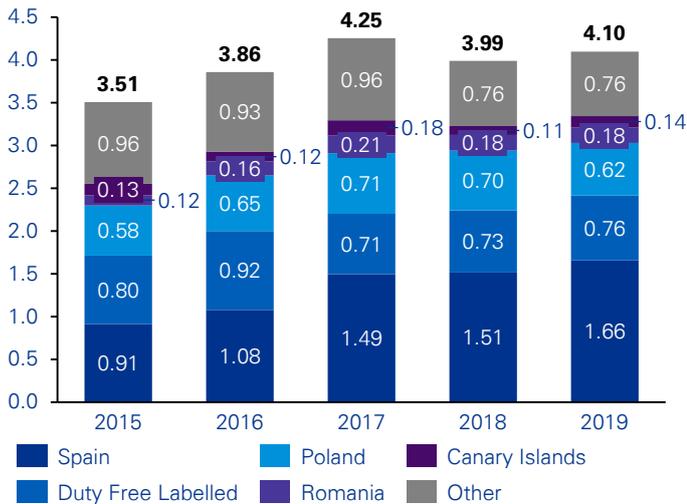


Note: (a) C&C scale is relative to this market and is not comparable with other markets in the study

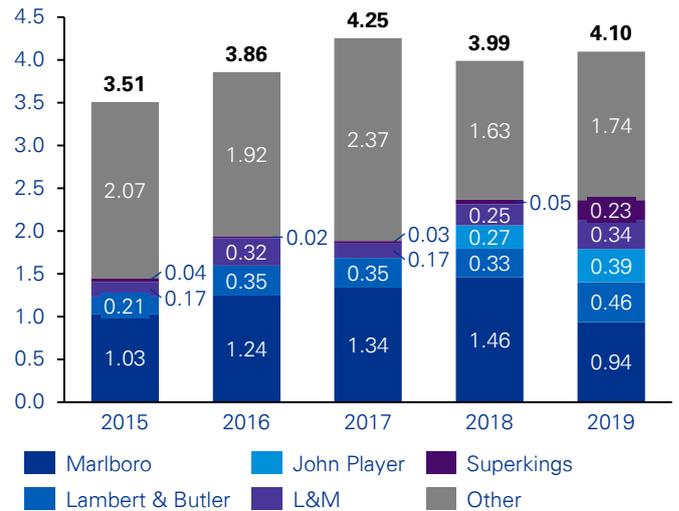
Source: (1) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section

ND(L) and C&C flows

ND(L) by country of origin – 2015-2019 (bn cigarettes)



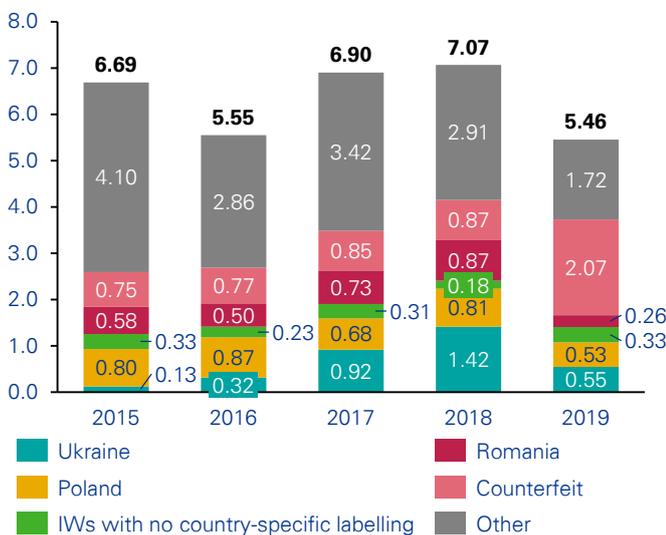
ND(L) by brand – 2015-2019 (bn cigarettes)



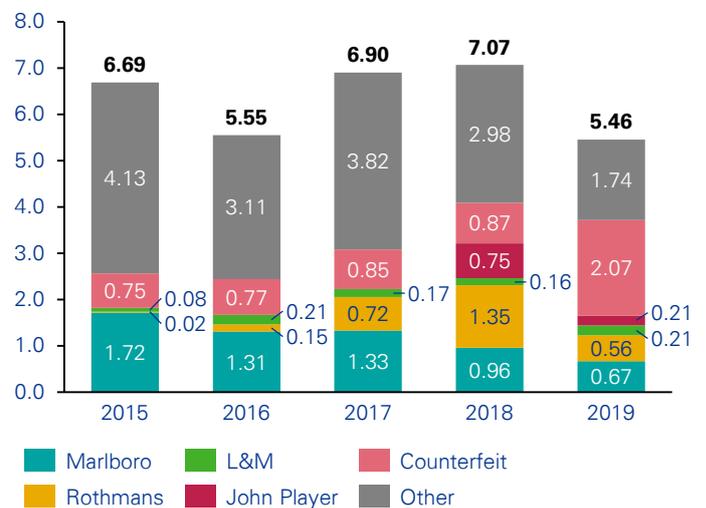
— Counterfeit increased to the highest level of any country in the study in 2019

— The highest levels of C&C were found in North East England

C&C by country of origin – 2015-2019 (bn cigarettes)



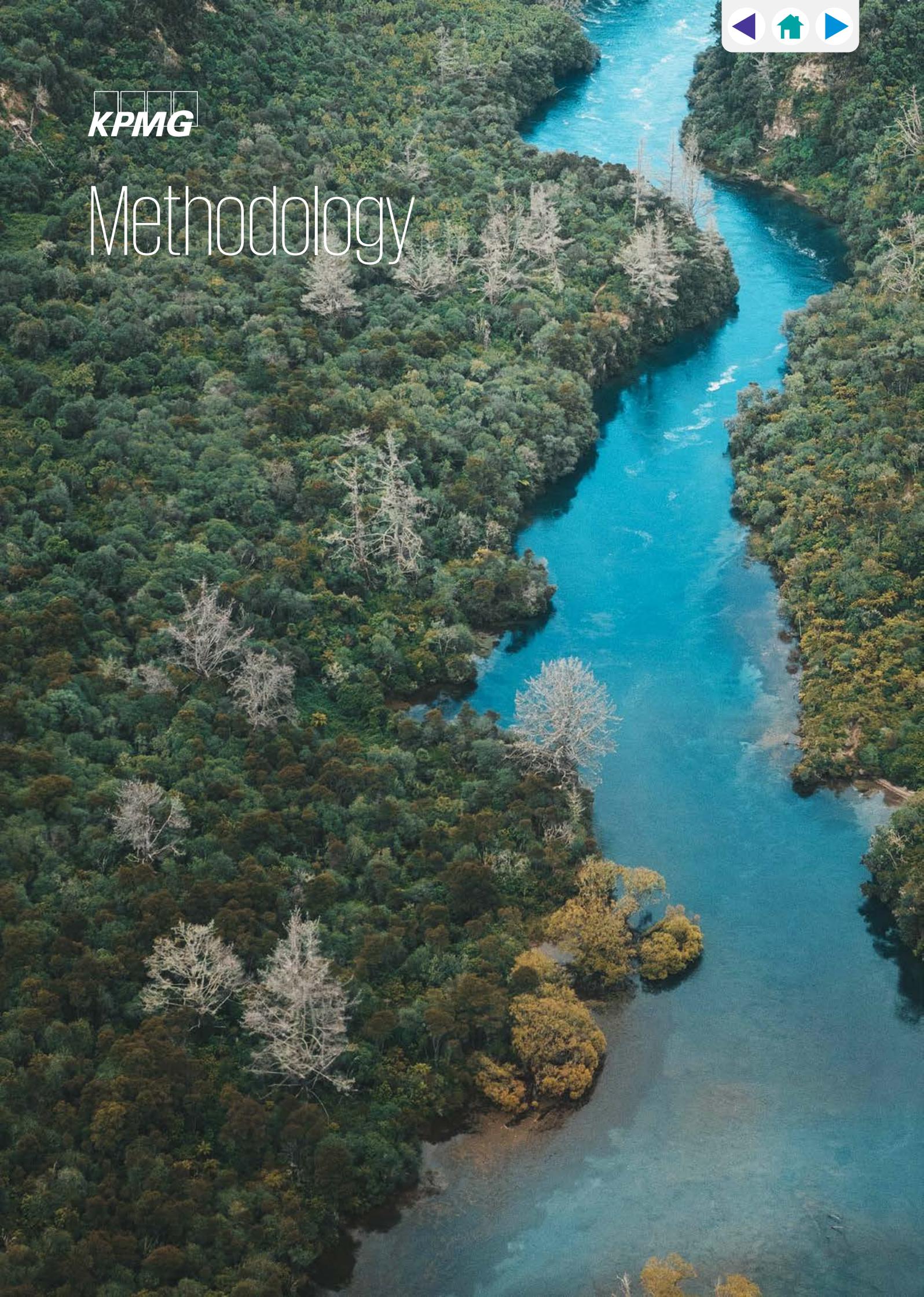
C&C by brand – 2015-2019 (bn cigarettes)



Source: (1) KPMG EU Flows Calculation 2019. For detailed methodology and a list of sources, refer to the methodology section



Methodology



Methodology – Overview

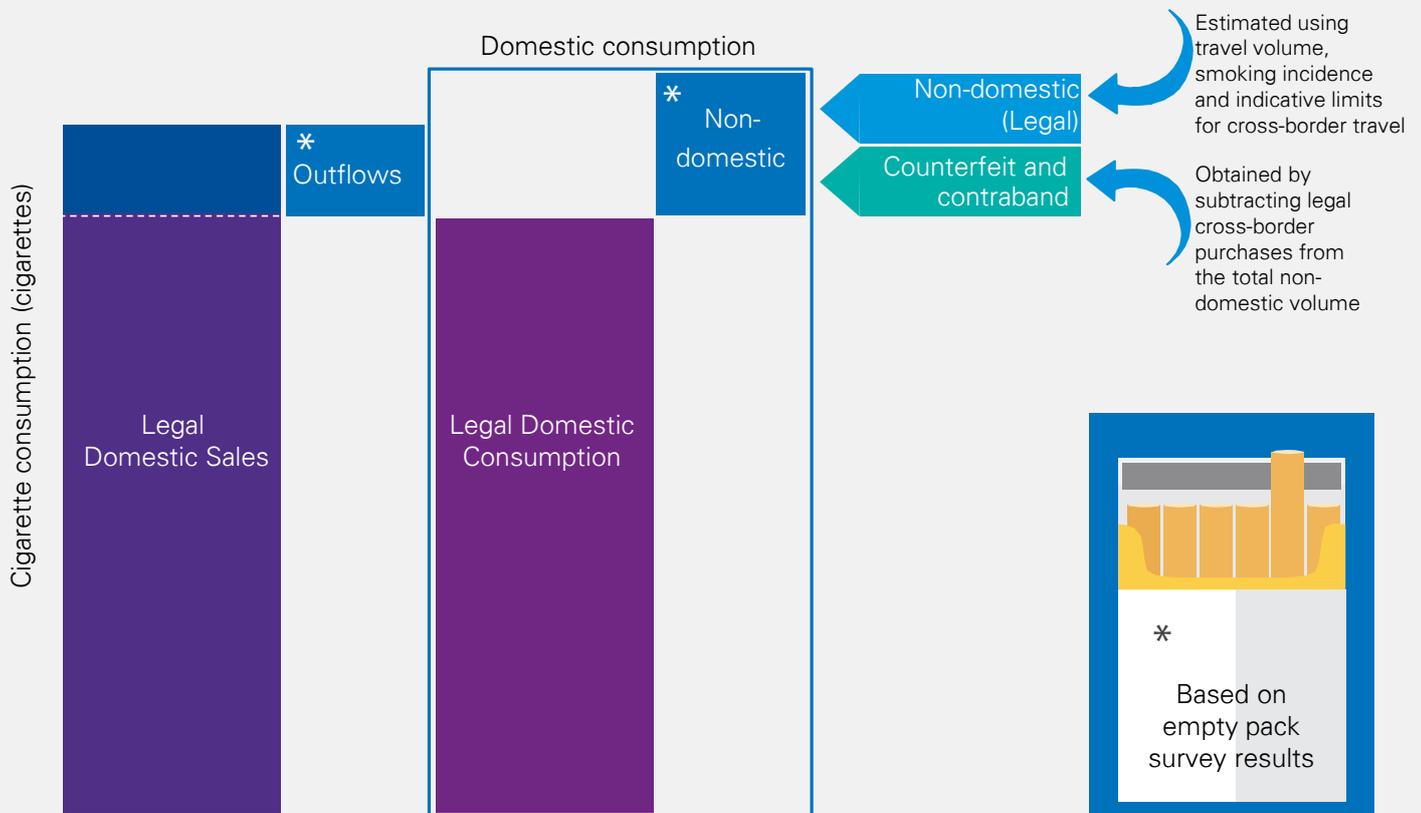
<p>KPMG has developed and refined its methodology for quantifying counterfeit and contraband incidence across the 27 EU markets and the UK since 2006, with Norway and Switzerland included in the study since 2014</p>	<p>The methodology has been tested extensively and refined to ensure that it delivers the most robust and justifiable results possible</p> <ul style="list-style-type: none"> — Our approach integrated multiple sources and custom-built analytical tools — In 2018 and 2019, this study (previously known as Project SUN or Project Stella) was commissioned by Philip Morris International. In 2017, Project SUN was commissioned by the Royal United Services Institute (RUSI). RUSI contracted this work with funding from British American Tobacco and Philip Morris International to support RUSI’s broader illicit trade research. As part of this, RUSI has also produced an Occasional Paper to shed light on some of the main organised crime dynamics accompanying the trends revealed by the KPMG data. In 2016, similarly, RUSI commissioned Project Sun with funding from British American Tobacco, Philip Morris International and Imperial Tobacco Limited. Prior to this, between 2013-2015, Project Sun was commissioned jointly by the four major tobacco manufacturers (British American Tobacco plc, Imperial Tobacco Limited, JT International SA and Philip Morris International Management SA). KPMG LLP were previously commissioned by Philip Morris International Management SA to produce reports covering 2006 to 2012 (‘Project STAR’). — As a part of the 2018 study an external panel of experts was appointed, with a background in law enforcement, brand protection and tobacco control. The panel had a mandate to review the methodology, validate and challenge any assumptions used, and suggest improvements KPMG could make, which were then implemented in the report. For details on the panel of experts, refer to the 2018 Project Stella report
<p>The methodology is based primarily on objective evidence from LDS and empty pack survey results, which are input to the bespoke EU Flows Calculation</p>	<p>The KPMG EU Flows Calculation is a dynamic, iterative approach that is based on Legal Domestic Sales (LDS) and empty pack survey results and is used to estimate overall manufactured cigarette volumes</p> <ul style="list-style-type: none"> — The KPMG EU Flows Calculation has been developed by KPMG to specifically estimate inflows and outflows of cigarettes between EU countries for the purpose of this report. It is an iterative data driven approach that uses LDS and empty pack survey results to estimate the volume of non-domestic outflows and inflows to and from EU Member States, UK, Norway and Switzerland — LDS are the starting point of the methodology, from which outflows of legal sales to other countries are then subtracted to estimate Legal Domestic Consumption (LDC) — Inflows from other countries are then added to calculate the total consumption within a market — This methodology has been developed by KPMG for the manufactured cigarettes market specifically. For that reason, an assessment of the OTP market (both legal and illicit) is excluded from the scope of this report
<p>Empty pack survey results provide a robust indication of the incidence of non-domestic and counterfeit packs and country of origin</p>	<p>Empty pack survey relies purely on physical evidence, avoiding the potential for consumer bias found in interview- based methods</p> <ul style="list-style-type: none"> — The empty pack surveys were conducted by independent market research agencies on a consistent basis across all the EU markets, Norway and Switzerland, allowing for direct comparison of data and the identification of inflows and outflows between all of the countries analysed — Over 540,000 packs were collected in 2019 as part of this research — Further detail regarding the reliability and validity of empty pack survey, the sampling approach and results by country at a regional level are provided later in this document — The external panel of experts involved in 2018 concluded that “the empty pack survey is the most reliable and objective approach to data collection available”
<p>Tourism & travel trends are used to quantify legal non-domestic cigarette purchases</p>	<p>Tourism and travel data provided by publicly-available 3rd party sources are used to estimate genuine, legal non-domestic tobacco purchases (including cross-border shopping) in each market based on inbound visitor inflows</p> <ul style="list-style-type: none"> — United Nations World Tourism Organisation^(a) data is the primary source used to identify travel trends, supplemented with other publicly available data — European Commission releases^(b) are used to calculate changes in the weighted average price of a pack of cigarettes in the EU countries. Where flows come into a country from a higher priced country they are assumed to be 100% legal, as there is no price incentive for smuggling

Notes: (a) UNWTO
(b) EC Excise Duty Tables, March 2019 (Part III – Manufactured Tobacco)

Methodology – Overview

<p>There are some specific limitations in the methodology</p>	<p>Given the complexity of measuring C&C, we recognise there are some limitations within the methodology</p> <p>There are broadly two types of limitations: scope exclusions and source limitations</p> <ul style="list-style-type: none"> — Scope exclusions include areas which cannot or have not been accounted for in our scope of work and approach, such as geographic, brand (non-participating manufacturer counterfeit), category exclusions (OTP) and legal domestic product flows out of the EU — Source limitations include the availability of information and the potential errors inherent with any data sources such as sampling criteria, coverage issues and seasonality factors
<p>To help improve the accuracy of results, some minor refinements were necessary at a country level</p>	<p>Comparison of results from alternative sources identified a few markets where country-to-country flows required minor adjustment</p> <ul style="list-style-type: none"> — In nearly all instances, overall country results and flows from the KPMG EU Flows Calculation appeared in line with estimates from other third party sources, however, in a limited number of instances, specific adjustments were made to country-to-country flows where additional data provided by third parties or manufacturers allowed for further refinement of the analysis

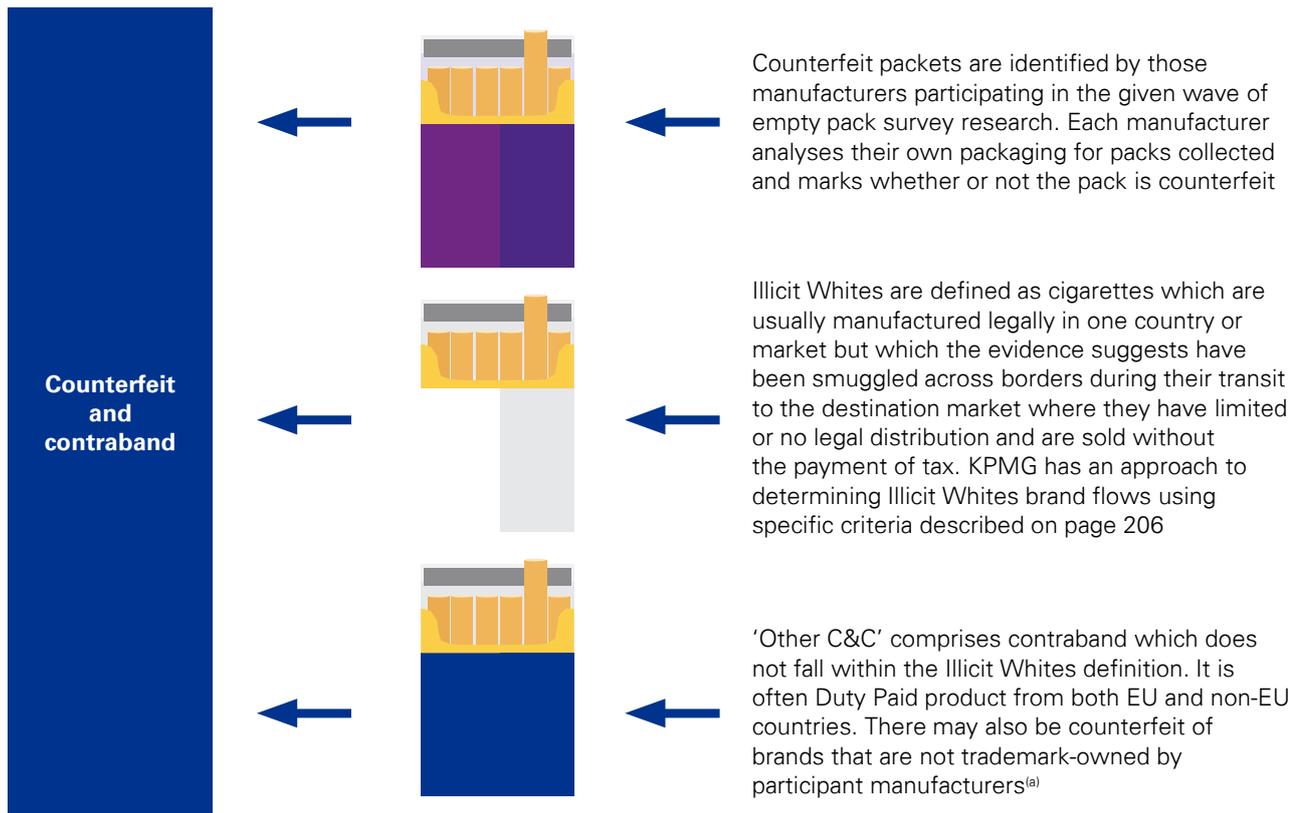
This methodology uses LDS, empty pack survey results and other consumer research to estimate the volume of C&C cigarettes consumed in the EU



This methodology was developed by KPMG. It has been deployed consistently since 2006, enabling comparisons to be made between counterfeit and contraband volumes from year to year.

Methodology – Overview

Counterfeit and contraband is allocated into three constituent parts: Counterfeit, Illicit Whites and Other C&C



Understanding the differences between OLAF seizure data and the results of this study

Around 40% of product identified within this report is defined as 'Other C&C'. However, when compared to OLAF seizures data, 'Other C&C' accounts for 2%-3% of total seizures volumes⁽¹⁾

There are several possible explanations for this difference:

- Seizures are often intelligence led and tend to target specific manufacturing or transport operations. It is difficult to determine what share of total illicit activity/ consumption these seizures represent
- Illicit Whites and counterfeit cigarettes are typically seized in larger volumes than 'Other C&C', leading to these categories having a greater volume share of seizures
 - Illicit Whites may not be subject to the same high level of supply chain controls as genuine international brands. This means that product can be legally manufactured in bulk in one country, with large volumes imported and distributed illegally within another country, raising the potential for larger volume seizure events, or more seizure events
 - Counterfeit cigarettes are usually seized within transport containers or via raids on the illegal factories, leading to high volume seizure events
- 'Other C&C' is generally only available through legitimate sale locations with the relevant duty paid for the country of purchase. This means it is generally not transported in high volumes, with illicit flows into countries being volumes over and above legal allowances. This high frequency but low volume approach, sometimes referred to as "bootlegging" or "ant smuggling", makes detection more difficult and seizures are smaller
- As the majority of 'Other C&C' seems to be 'bootlegged' or 'ant smuggled', even if the smuggled product is seized by law enforcement agencies, volumes are usually below 50,000 cigarettes and are therefore less likely to be notified to OLAF

Note: (a) Cigarette packs of brands that are not trade mark owned by participant manufacturers are not analysed and are all considered to be genuine

Source: (1) OLAF, Q&A Fighting the illicit trade of tobacco products, 14 August 2015

Methodology – LDS

LDS data was sourced from Nielsen and other independent agencies

- Since the beginning of this study, LDS estimates for all brands have been sourced from Nielsen and other independent sources

Where appropriate, nationally agreed external estimates of LDS have been used instead of the above approach

In certain markets, publicly available estimates of legal manufactured cigarette sales are widely used by manufacturers, industry participants, government bodies and non-governmental organisations.

In these instances, it has been deemed more appropriate to incorporate these recognised estimates of LDS in the KPMG EU Flows Calculation. This is the case in 2019 with:

- Croatia: figure reported by the Croatian Customs Authority
- Hungary: figure reported by the National Tax and Customs Administration
- Latvia: figure reported by the State Revenue Service

Note: (a) Example volumes included do not reflect actual sales data and are for illustrative purposes

Source: (1) LDS data provided by Nielsen and other independent agencies. Refer to appendix section for a list of sources

Methodology – Empty pack survey

<p>Overview</p>	<p>An empty pack survey is a research system of collecting discarded empty cigarette packs, the results of which are used to estimate the share of domestic (duty paid), non-domestic and counterfeit packs in each of the markets</p> <ul style="list-style-type: none"> — Empty pack surveys were conducted by independent market research agencies (e.g. Nielsen, Ipsos or MSI) in each of the countries sampled. The surveys are commissioned by the participating manufacturers and the sampling plan is designed by the agencies in conjunction with the manufacturers to help make the sampling plan statistically representative of consumption in the country for the whole year studied. — Results were based on a large sample of packs collected in various population centres throughout the countries, although the exact collection plan differs by country. Accuracy and credibility of results is driven by sound design of the sampling plan — Results are not subject to respondent behaviour and are therefore less prone to sampling errors than many other alternative methodologies — Results reflect actual overall non-domestic share and provide a good snapshot of brands consumed
<p>Process</p>	<p>Empty pack surveys rely purely on physical evidence, avoiding the potential for consumer bias in interview-based methods</p> <ul style="list-style-type: none"> — The independent market research agencies randomly collect empty packs of any brand and market variant from streets and easy access bins — Homes and workplaces are not visited and the collection route specifically excludes sports stadia, shopping malls and stations, or any other locations where non-domestic incidence is likely to be higher as a result of a skewed population or demographic visiting these areas — Once packs are collected, they are sorted by manufacturer and brand and the number of packs with domestic versus non-domestic tax stamps counted to determine the proportion of packs that did not originate from that jurisdiction (including Duty Free variants) <ul style="list-style-type: none"> – In cases where tax stamps are not shown on a packet, health warning and packaging characteristics are used to determine the source market and where no markings are found they are recorded as unspecified — For brands belonging to the major manufacturers packs are sent to the manufacturers for analysis to determine which are genuine and which are counterfeit. Only the manufacturers can determine this, based on ink, paper and other characteristics of the packaging — KPMG used the results of the empty pack surveys to extrapolate overall consumption in the market using LDS and the percentage of non-domestic cigarettes in the market as found through empty pack surveys — The process is repeated across all countries of study using an approach which iterates the level of non-domestic cigarettes until all inflows and outflows are equal
<p>Coverage</p>	<p>The total number of packs collected in each market is not solely based on population, but is determined by a number of factors such as the size of the market, the likelihood of high non-domestic incidence and the manufacturers’ share of the legal market. However, the locations where packs are collected ‘in market’ are based on city and regional populations to ensure the sample is nationally representative</p> <ul style="list-style-type: none"> — Small surveys (300-4,999 packs): Croatia, Cyprus, Luxembourg, Malta, Portugal, Slovenia — Medium surveys (5,000-9,999 packs): Belgium, Denmark, Estonia, Finland, Ireland, Latvia, Norway, Slovakia, Switzerland — Large surveys (10,000 packs or more collected): Austria, Bulgaria, Czech Republic, France, Germany, Greece, Hungary, Italy, Lithuania, Netherlands, Poland, Romania, Spain, Sweden, UK

Methodology – Empty pack survey

Calculation of non-domestic incidence on a stick basis since 2012

Overview	<p>Prior to 2012, the KPMG EU Flows Calculation assumed that all packs collected were the same size (20 cigarettes). In 2012 the approach was updated to take into account different pack sizes, and this approach has been continued since then</p> <ul style="list-style-type: none"> — This update to the approach was made to help give a more accurate result for the volume flows between EU countries, as pack sizes vary on a country by country basis
Process	<p>Empty pack survey results provide the number of cigarettes in each packet</p> <ul style="list-style-type: none"> — It is therefore possible to calculate the total number of sticks accounted for by the pack collection despite the different size packs, hence improving the overall accuracy of volume estimations
Impact	<p>The effect of this change on non-domestic incidence was dependent upon whether the typical domestic pack size was greater or less than the average pack size of 20 on a country by country basis</p> <ul style="list-style-type: none"> — In countries where the average domestic pack size was less than 20 cigarettes (for example, historically most LDS in the UK and Italy were of 10 or 20 cigarette packs, giving an average domestic pack size of less than 20 cigarettes, and in Denmark domestic cigarettes were sold in packs of 19), then the conversion to a sticks basis is likely to decrease the proportion of domestic cigarettes in the empty pack survey sample, giving a higher non-domestic incidence than estimating on a pack basis — In countries where the average domestic pack size was greater than 20 cigarettes (for example in Luxembourg domestic packs typically contain 20, 25 or 30 cigarettes), then the conversion to a sticks basis was likely to increase the proportion of domestic cigarettes in the empty pack survey sample, giving a lower non-domestic incidence than estimating on a pack basis

Methodology – Empty pack survey

Empty pack survey methodology



The empty pack survey is conducted in a consistent way for each country. It follows a four step process:

1. Population centre selection

- The population centres chosen are representative of the country of study. Each population centre is divided into five sectors (north, south, east, west and centre). Each sector is subdivided into neighbourhoods of the same size (250 meter radius)

2. Pack collection

- Each neighbourhood is assigned a number of discarded packs for collection based on the size of the overall population centre in comparison with the national population. For example, in France 126 cities are sampled in each wave of 11,500 packs. Of all packs collected, 1260 are collected in Paris, which represents over 10% of the packs collected and sample sizes. The neighbourhoods sampled include residential, commercial and industrial areas
- A minimum number of packs are collected from each neighbourhood. Each neighbourhood has a specific starting point and a fixed route. The collectors accumulate as many empty packs as possible within each neighbourhood regardless of the quota requested in the sampling plan. Packs are collected from any manufacturer regardless of whether they participate in the survey. Collectors revisit the neighbourhood as many times as necessary in order to achieve the required quotas
- The training of collectors includes an explanation of the methodology and running of pilots prior to the collection. Each team of collectors is supervised by a team leader
- An additional 5% extra packs are collected in case there are issues with the existing sample

3. Pack processing

- The empty packs are placed into bags and stored at a safe collection point. Packs are discarded if they do not meet the survey quality requirements (e.g. torn, unreadable, rotten). Each survey qualified pack is cleaned and placed in a transparent nylon bag with a zipper that carries a unique barcode label indicating the serial number attributed to the pack (corresponding to the data sheet). The details are then entered into the survey "Data Sheet". The packs are delivered to the participating manufacturers in the given wave of empty pack survey in a way that enables easy processing and identification

4. Pack analysis

- The participating manufacturers check the packets belonging to their brands to identify counterfeit and inform the agency that collates and updates the data sheets
- These data sheets are finally provided to KPMG and analysed to calculate the non-domestic incidence and contraband and counterfeit volumes

Methodology – Empty pack survey

Empty pack survey adjustments

Where necessary, adjustments are made to the empty pack survey in the form of reweighting different packs or quarterly surveys, based on additional evidence available. Adjustments are made to correct for issues identified in the empty pack survey. The main issues identified are covered below:

Empty pack survey	Explanation	Method	Countries where adjustment made
1. Brand oversampling	Domestic packs collected by brand in the empty pack survey deviate significantly from the domestic brand shares	<ul style="list-style-type: none"> — Premium brands may be oversampled which we can check through a comparison with the LDS — KPMG assumes that an oversampling of premium brands domestically will result in an oversampling of premium brand non-domestically. As a result, it down-weights all non-domestic packs from this brand to the domestic market share 	France
2. Adjustments to specific country flows	The flows from some countries appear to have been over or under-sampled based on the timing of the survey, areas sampled, or sales from other countries	<ul style="list-style-type: none"> — Adjustments were made when the empty pack surveys over or under sampled some flows as highlighted by other sources of data — Some examples include: <ul style="list-style-type: none"> - Border sales data from Spain, Belgium and Luxembourg indicated that volume of inflows from these countries were being under sampled in the French empty pack survey. Hence, the inflows from these countries were adjusted - Publicly available Spanish sales data indicated that flows of brands purchased by British tourists in Spain were under sampled in the UK empty pack survey. Hence, the empty pack survey was adjusted to refine the results - Based on sales and offtake data supplied by the manufacturers, it was observed that Duty Free inflows were oversampled in Italy and France empty pack surveys. Therefore, adjustments were made to these flows <p>A detailed list of empty pack survey adjustments and their impact can be found in the following pages</p>	France, Italy, Luxembourg, Slovenia, UK

Methodology – Empty pack survey

Empty pack survey adjustments

Country	Sample dates	Packs collected	Number of cities	Adjustment	Impact
Austria	Q2: Apr-May Q4: Nov	13,000	24	None	n/a
Belgium	Q2: Apr Q4: Oct-Nov	5,600	18	None	n/a
Bulgaria	Q1: Feb-Mar Q2: May Q3: Sep Q4: Nov	23,200	20	None	n/a
Croatia	Q4: Oct	3,000	8	None	n/a
Cyprus	Q4: Oct	1,000	4	None	n/a
Czech Republic	Q2: Apr Q4: Sep	21,004	30	None	n/a
Denmark	Q2: Apr	5,000	6	None	n/a
Estonia	Q2: Apr Q4: Sep	6,600	14	None	n/a
Finland	Q2: Apr	5,000	10	None	n/a

Methodology – Empty pack survey

Empty pack survey adjustments

Country	Sample dates	Packs collected	Number of cities	Adjustment	Impact
France	Q1: Feb-Mar Q2: Apr-May Q3: Aug-Sep Q4: Oct-Nov	46,000	126	<p>Q3 empty pack survey results were excluded due to domestic brand shares results far in excess of local sales data and non-domestic levels much higher than Q1, Q2 and Q4 2019, and the comparable period last year. As such the sample was considered unrepresentative as it overstated non-domestic share and brand shares</p> <p>Country flows adjustment: Inflows from Spain, Luxembourg and Belgium were adjusted using publicly available data sources, and were corroborated with manufacturer sales data</p> <ul style="list-style-type: none"> — Inflows from Spain were adjusted to reflect tourism trends and border sales, which indicate higher flows into France — Inflows from Luxembourg were adjusted to reflect tourism trends and border sales which indicate higher flows into France — Inflows from Belgium were adjusted to reflect tourism trends and border sales which indicate higher flows into France <p>Duty free adjustment:</p> <ul style="list-style-type: none"> — Empty pack survey results suggested France Duty Free volumes in excess of actual volumes sold. France Duty Free volumes were reduced to be in line with volumes sold, as this was assumed to be the maximum feasible volume <p>Brand adjustment:</p> <ul style="list-style-type: none"> — A comparison of Marlboro LDS with domestic packs collected in the empty pack survey indicated the brand was oversampled in the empty pack survey. Therefore the volume of non-domestic packs were reduced, using the assumption non-domestic packs were oversampled to the same extend as domestic packs <p>The adjustments above are not mutually exclusive and Duty free and Brand adjustments also impact Country flow adjustment</p>	<ul style="list-style-type: none"> — Inflows from Spain increased from 1.85bn to 4.11bn — Inflows from Luxembourg increased from 0.52bn to 1.27bn — Inflows from Belgium increased from 1.23 to 1.90 — France Duty Free ND decreased by 0.32bn and other ND increased by the same volume — Reduction of 1bn of non- domestic Marlboro

Methodology – Empty pack survey

Empty pack survey adjustments

Country	Sample dates	Packs collected	Number of cities	Adjustment	Impact
Germany	Every month	180,689	43	None	n/a
Greece	Q2: Apr Q3: Sep	12,000	20	None	n/a
Hungary	Q2: May-Jun	17,240	40	None	n/a
Ireland	Q2: Apr-May	5,000	22	None	n/a
Italy	Q1: Feb Q2: May-Jun Q3: Jul Q4: Oct-Dec	40,000	85	Duty Free adjustment: Empty pack survey results suggested Italy Duty Free volumes in excess of actual volumes sold. Italy Duty Free volumes were reduced to be in line with actual volumes sold based on vendor sales data supplied by PMI, as this was assumed to be the maximum feasible volume	Italy Duty Free ND decreased by 0.09bn and other ND increased by the same volume
Latvia	Q2: Apr Q4: Sep-Oct	9,800	25	None	n/a
Lithuania	Q2: Apr Q4: Sep-Oct	11,600	20	None	n/a
Luxembourg	Q2: Apr Q4: Nov	400	2	None	n/a
Malta	Q4: Oct	1,000	8	None	n/a
Netherlands	Q2: Apr-May Q4: Sep-Oct	14,000	50	None	n/a
Norway	Q2: May-Jun	5,000	8	None	n/a
Poland	Q2: Apr Q3: Aug Q4: Oct	37,500	40	None	n/a
Portugal	Q2: Apr-May	3,000	10	None	n/a
Romania	Q1: Jan-Apr Q2: May-Jun Q3: Jul-Oct Q4: Nov-Dec	15,125	194	None	n/a
Slovakia	Q2: Apr-May	5,000	25	None	n/a

Methodology – Empty pack survey

Empty pack survey adjustments

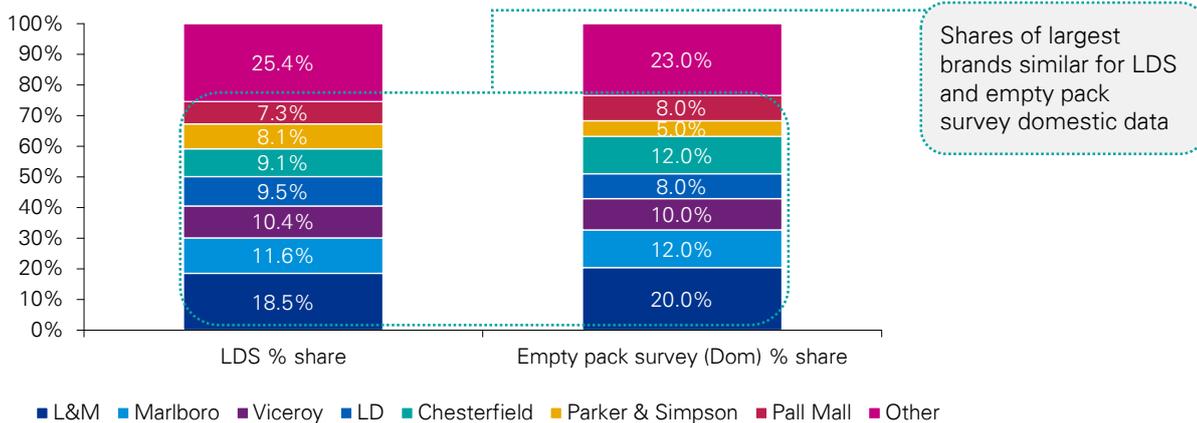
Country	Sample dates	Packs collected	Number of cities	Adjustment	Impact
Slovenia	Q4: Oct	3,000	8	<p>Adjustment to country flows: Empty pack survey results suggested a large increase of inflows from Italy and Netherlands compared to historical figures. This was deemed unlikely as Italy and Netherlands are more expensive markets, hence there is no incentive to smuggle. Furthermore the increases did not align with traveller trends</p> <p>Therefore, the increase in non-domestic inflows from Italy and Netherlands were limited to be in line with the traveller volume increase seen between 2018 and 2019, as travellers are likely to be main source of inflows from these countries</p>	<ul style="list-style-type: none"> — Packs originating from Netherlands reduced from 0.07bn to 0.0bn — Packs originating from Italy reduced from 0.13bn to 0.03bn — Other ND brands increased by 0.17bn to keep total ND volume the same
Spain	Q2: Apr-May Q4: Oct	30,000	58	None	n/a
Sweden	Q2: Apr-May	10,000	29	None	n/a
Switzerland	Q2: May-Jun	5,600	20	None	n/a
UK	Q2: Apr-Jun	12,700	105	<p>Adjustment to country flows: Cigarette sales data published by Spain's Ministry of Finance indicated that flows of brands purchased by British tourists in Spain were under sampled in the UK empty pack survey</p> <p>Flows from Spain to the UK were increased to take account of volumes sold in Spain to British tourists, as it is assumed these cigarettes are taken back to the UK</p>	Inflows from Spain increased from 0.66bn to 1.66bn

Methodology – Empty pack survey

As a sense check for the empty pack survey, the brand shares of domestic origin packs collected during the empty pack surveys should closely reflect the brand shares seen in the LDS data

- If brand shares of domestic origin packs closely reflect the brand shares seen in LDS, empty pack surveys are considered reflective of actual consumption in a market
- This provides additional confidence that the packs identified as non-domestic also fairly reflect the volume and brands actually consumed in that market (see the empty pack survey adjustment in France for an exception)
- As the empty pack surveys collect any brand and market variant, there should be no bias towards any specific brand being collected
- An illustrative example is shown below, for Poland

Comparison of LDS and domestic empty pack survey brand share, using illustrative data – Poland ^(a)



Note: (a) Number of 'top' brands shown chosen to reflect approximately two thirds of the total market on an LDS and empty pack survey basis

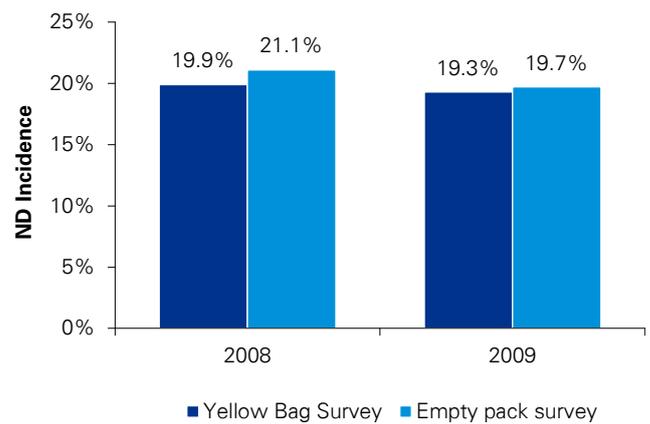
Methodology - Empty pack survey

Empty pack survey comparison

Validation of empty pack survey analysis

- A criticism of the empty pack survey is that it samples discarded cigarette packs rather than household waste and therefore significantly overstated non-domestic incidence. Sampling for household waste is impractical in most countries, however it is available in Germany. The household waste survey, known as a Yellow Bag Survey (YBS), is possible in Germany because household waste is sorted, mainly for the purposes of recycling, which makes it possible to separate cigarette packs from other waste
- The Yellow Bag Survey collects 500 packs a month per centre from 24 waste disposal centres throughout Germany. This resulted in over 120,000 weighted packs collected throughout the year, typically a larger sample than an empty pack survey. A comparison was undertaken by KPMG between different methodologies in 2008 and 2009
- In addition to the benefits of the higher sample size, collections from waste disposal centres resulted in packs coming from both household waste and public bins, demonstrating that consumption of illicit tobacco in the home is unlikely to be significantly different to consumption in public places. This helps to address a common criticism of the empty pack survey

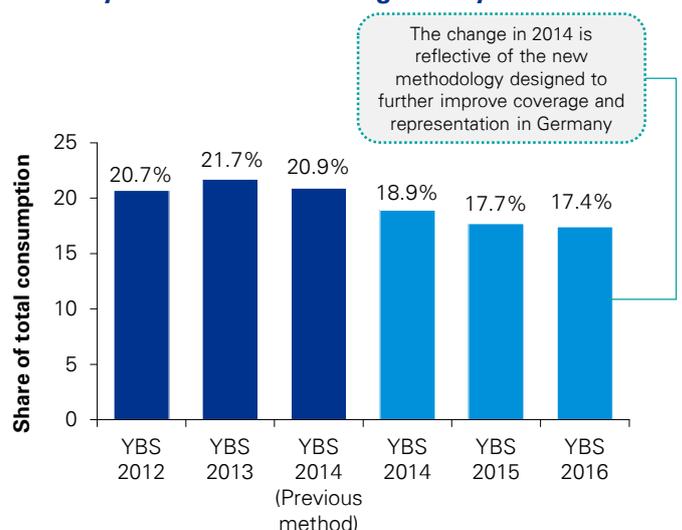
Comparison of empty pack survey and Yellow Bag Survey, Germany - 2008-2009^{(1)(2)(a)(b)}



Improvement of German pack analysis in 2014

- In 2014 the German pack collection was refined as fewer waste disposal centres were providing pack collections. Despite weighting the pack collections from each disposal centre according to the population of the region, some regions were not being represented
- As a result, a pack collection was started in 2014 in areas with no coverage from waste recycling centres. This has resulted in a much greater proportion of the German population covered, from 40% to close to 100% of the population
- The result of the change in methodology has been to reduce the overall non-domestic incidence by approximately 2 percentage points compared to the collection in previous years
- Since then, this improved approach has been used in our study

Germany historical Yellow Bag Surveys^{(2)(a)}

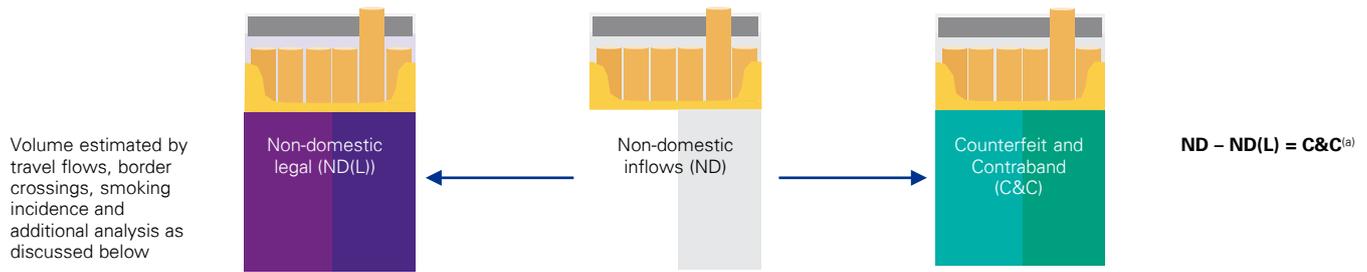


Notes: (a) The comparison between methodologies is made on a "sticks basis" in 2008 and 2009 rather than the packs basis reported in this study and in the chart below. These were the only years for which both yellow bag survey and empty pack survey were available

Sources: (1) MS Intelligence Research, Germany empty pack survey report, Q2 2009 (2) Ipsos empty pack surveys, 2008-2009 (3) Ipsos Yellow Bag Surveys, 2012-2016

Methodology – Non-domestic legal analysis

Primary information sources and tools – Non-domestic legal analysis and assumptions



ND(L) was determined by analysis of travel trends, border crossings and cigarette pricing data. C&C volumes formed the remaining non-domestic balance after subtracting ND(L) from total non-domestic

ND(L) was calculated using 2 methods:

1. Countries where ND(L) is 100% of total ND

- Non-domestic cigarettes in the empty pack surveys from higher priced inbound tourist/visitor countries were categorised as legal as long as these flows were not identified as Counterfeit or Illicit Whites brands

2. Travel flows analysis

- Business and tourism travel data from the World Tourism Organization (UNWTO), national statistics offices and other publically available sources were used to calculate the number of trips made by travellers over the age of 18
- This total number of trips was then multiplied by the average smoking prevalence of the country of origin to calculate the total number of trips where cigarettes are purchased. Smoking prevalence data for 2019 was provided by WHO
- It was assumed that the number of packs purchased per trip is equal to the Duty Free allowance, or the indicative legal limit for cross-border travel
- The empty pack survey and EU Flows Calculation form the basis of all non-domestic analysis. As a result, where the ND(L) calculation was greater than 100% of the flow calculated by the EU Flows Calculation it is capped at the volume generated by the EU Flows Calculation
- In certain cases travel data may not capture the extent of cross-border travel where such travel does not entail an overnight stay. Where this is a material source of cross-border flows, it is estimated based on regional border populations, retail sales data and other publicly available data



Example using illustrative data

1 Countries where ND(L) is 100% of total			
Country of Origin	ND (bn sticks) ⁽¹⁾	ND(L) (bn sticks)	% of ND
Belgium	0.78	0.78	100%

2 Travel flows analysis								
Country of origin	ND (bn sticks) ⁽¹⁾	Number of journeys (m) ⁽²⁾⁽³⁾	% of Population 18+ ⁽³⁾⁽⁴⁾	Smoking Prevalence ⁽³⁾⁽⁵⁾	Trips where cigarettes purchased (m)	Cigarettes per trip ^(b)	ND(L) (bn sticks)	% of ND
UK	0.62	8.63	78.6%	19.7	1.34	200	0.27	43%

Notes: (a) KPMG calculates the split between C&C and ND(L) by calculating the ND(L) volume and subtracting from the total inflows

(b) Unless stated otherwise it is assumed that returning travellers purchase the indicative maximum allowed

Sources: (1) KPMG EU Flows Calculation (2) UN WTO Tourism Factbook 2014-18 (3) Euromonitor (4) UNICEF (5) WHO

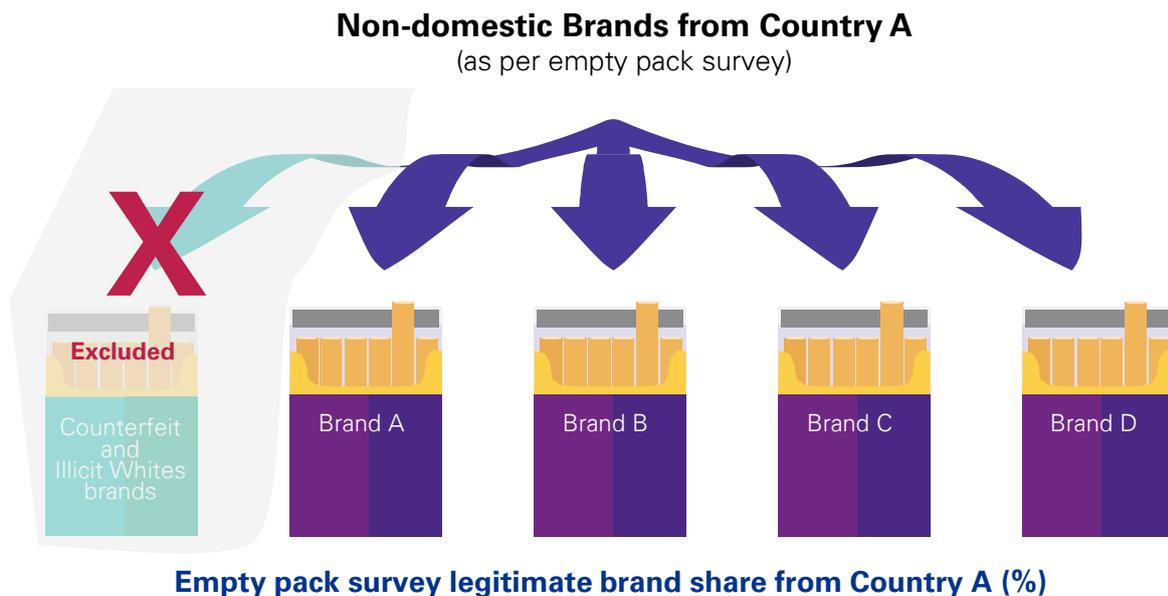
Methodology – Non-domestic legal analysis

Non-domestic legal brand split analysis and assumptions

Illustrative example of ND(L) by brand approach



Illustrative example of Brand Share calculation



Having determined the volume of ND(L) inflows on a country basis as detailed on the previous page, the brand share was determined by analysis of the brands that were found in the empty pack survey from that country

The ND(L) inflow from each source country was split into brands by using the following approach

- Illicit Whites brands and Counterfeit packs were excluded from being potentially classified as ND(L) as these brands are always C&C, leaving only brands that could have potentially legal inflow volumes
- For the remaining potentially legal brands, the ND(L) percentage share was calculated to be the same as the non-domestic share of these brands
- ND(L) volume by brand was calculated as the product of the total ND(L) inflow and the brand percentage share

Methodology – Non-domestic legal analysis

Non-domestic legal adjustments

Country	Adjustment
Austria	ND(L) from Czech Republic The flow is predominately legal due to the countries' proximity and high non-tourism travel volumes
	ND(L) from Slovenia Assumed to be predominately legal due to high non-tourism travel volumes
	ND(L) from Slovakia ND(L) in Eastern Border areas from Slovakia assumed to be predominately legal given large price differentials and opportunities for Austrians to cross-border shop
Belgium	ND(L) from Luxembourg Assumed to be predominately legal due to high non-tourism travel volumes
Bulgaria	None
Croatia	None
Cyprus	None
Czech Republic	None
Denmark	None
Estonia	None
Finland	ND(L) from Duty Free An additional 0.07bn was added to ND(L) to account for the Nordic ferry system between Finland and the island of Aaland (an autonomous region of Finland) where Duty Free can be purchased. As travel to Aaland does not include travel outside of the EU these volumes would not otherwise be included in our Duty Free ND(L) calculation based on non-EU traveller numbers. This calculation was based on manufacturer cigarette sales data from the Baltic Sea Ferries and is apportioned across Finland and Sweden based on traveller volumes taken from Baltics Sea Ferries data for 2016-2019
France	ND(L) from Algeria ND(L) in France from Algeria was estimated using traveller volumes from the WTO and traveller research carried out at airports in Algeria by Kantar TNS ('Tobacco brought back from Algeria to France by travellers of direct flights', May 2018) that indicated that 33% of travellers carry tobacco products from Algeria to France. The indicative legal limit remains 200 cigarettes
	ND(L) from Spain, Belgium and Luxembourg In addition to tourist ND(L), ND(L) flows into France were increased to account for legal flows from border shoppers (using data points on number of tourists, smoking incidence, adult population, local border populations, car ownership etc. to estimate the volume of cigarettes that could be bought legally by French smokers near the border). Border shopping is common in these bordering and cheaper markets, and border shoppers crossings are not captured in tourist data
	ND(L) from Duty Free The Duty Free ND(L) is increased by 0.30bn to account for non-smokers who buy Duty Free cigarettes who would not be captured in our ND(L) estimation methodology. This adjustment is based on consumer research by Counter Intelligence Retail Ltd (French Nationality Tobacco Shopper/ Buyer Report, May 2016) carried out on Duty Free tobacco shoppers. This adjustment is also made in the UK and Germany where similar research exists

Methodology – Non-domestic legal analysis

Non-domestic legal adjustments

Country	Adjustment
Germany	<p>ND(L) from Czech Republic</p> <p>Czech Republic ND(L) was calculated at 4.64bn, by supplementing the WTO traveller numbers with border crossing data from the Czech Statistics Office. This is because WTO traveller data does not account for the high number of non-tourism related border crossings between Germany and Czech Republic related to workers and shoppers. The updated number of travellers was multiplied by the adult population %, smoking prevalence % and an assumed allowance of 420 cigarettes per person (cigarette number based on previous consumer research provided by PMI pre 2016)</p> <p>ND(L) from Poland</p> <p>Poland ND(L) was calculated at 3.98bn, by supplementing the WTO traveller numbers with border crossing data from the Polish government website. This is because WTO traveller data does not account for the high number of non-tourism related border crossings between Germany and Poland related to workers and shoppers. The updated number of travellers was multiplied by the adult population %, smoking prevalence % and an assumed 500 cigarettes per person (cigarette number based on previous consumer research provided by PMI pre 2016)</p> <p>ND(L) from Duty Free</p> <p>The Duty Free ND(L) is increased by 0.28bn to account for non-smokers who buy Duty Free cigarettes who would not be captured in our ND(L) estimation methodology. This adjustment is based on consumer research by Counter Intelligence Retail Ltd (German Nationality Tobacco Shopper/ Buyer Report, May 2016) carried out on Duty Free tobacco shoppers. This adjustment is also made in the UK and France where similar research exists</p> <p>ND(L) from Luxembourg</p> <p>Assumed to be predominately legal due to the high number of border crossings</p>
Greece	None
Hungary	None
Ireland	None
Italy	None
Latvia	None
Lithuania	None
Luxembourg	None
Malta	None
Netherlands	None
Norway	<p>ND(L) from Sweden</p> <p>The majority of flows from Sweden to Norway were considered legal due to the high levels of travel and tourism between the two, coupled with high border crossing volumes driven by cross border shopping in Sweden (The State statistics bureau, SSB (Statistics Norway), reported 8.8 million day trips to Sweden in 2019), not all of which are captured in WTO travel and tourism statistics. Cigarettes are a popular border shopping purchase as Swedish prices are almost half that of Norway</p> <p>ND(L) from World Wide Duty Free</p> <p>Assumed to be predominately legal. As Norway is a non-EU market, Norwegians can purchase Duty Free when travelling to the EU and abroad</p>

Methodology – Non-domestic legal analysis

Non-domestic legal adjustments

Country	Adjustment
Poland	None
Portugal	None
Romania	None
Slovakia	None
Slovenia	None
Spain	<p>ND(L) from Andorra ND(L) volumes have been increased to 0.24bn (from an original 0.14bn) to reflect additional tourist border crossings (sourced from government data: Frontier workers by nationality, Gibraltar Department of Employment, 2019 and Tourist Survey Report 2018, HM Government of Gibraltar) over and above those recorded by the WTO, using our standard ND(L) calculation methodology. The Andorra flow is considered predominately legal. Note that data from 2018 was used as 2019 data has not yet been made publically available</p> <p>ND(L) from Canary Islands ND(L) has been adjusted to 0.12bn (from an original 0.0bn) to reflect 2019 tourist border crossings (sourced from government data), and this flow is considered predominately legal</p> <p>ND(L) from Gibraltar ND(L) has been adjusted to 1.02bn. This is to reflect government data on total border crossings in 2019 of 10.4m (as these do not get captured in WTO traveller data). These are then split between tourists and workers (sourced from government data: Frontier workers by nationality, Gibraltar Department of Employment, 2019 and Tourist Survey Report 2018, HM Government of Gibraltar). The relevant smoking prevalence for workers and tourists, adult population and purchase assumptions are then to calculate total ND(L)</p>
Sweden	<p>ND(L) from Duty Free A ferry adjustment of 0.09bn sticks was added to ND(L) to account for the Nordic ferry system between Sweden and the island of Aaland where Duty Free can be purchased. This calculation was based on cigarette sales data and traveller volumes. Refer to the adjustment made in Finland for further details</p>
Switzerland	<p>ND(L) from Germany Assumed to be predominately legal given its proximity and large number of tourists and cross border workers</p> <p>ND(L) from France Assumed to be predominately legal given its proximity and large number of tourists and cross border workers</p> <p>ND(L) from World Wide Duty Free Assumed to be predominately legal. As Switzerland is a non-EU market, Swiss can purchase Duty Free when travelling to the EU and abroad</p>

Methodology – Non-domestic legal analysis

Non-domestic legal adjustments

Country	Adjustment
UK	<p>ND(L) from Poland</p> <p>The prevalence of Poland visitors to the UK was increased from 24.3% to 25.3% to correspond to the proportions of male to female visitors (there were more male than female visitors from Poland, with men having a higher smoking prevalence, as sourced from the Office for National Statistics (Visits to and spending in UK: by sex, purpose of visit and country of residence 2018). The prevalence of UK visitors to Poland was also updated to 21.8% (the Polish smoking prevalence) to account for the fact that a large majority of these UK visitors are Polish, as sourced from the Office for National Statistics (Number of visits to specified countries: by main country visited and nationality 2014 to 2018). Packs brought to the UK by Polish visitors was increased from 2 to 37 (based on previous consumer research provided by PMI pre 2016). This increased ND(L) from 0.28bn to 0.62bn</p> <p>ND(L) from Romania</p> <p>Packs brought to the UK by Romanian visitors were increased from 2 to 40. Given the large price differentials between the UK and Romania, and the Romanian population in the UK, these travellers may be resident or working in the UK with the price incentive to purchase cigarettes up to the indicative legal limit. This increased ND(L) from 0.03bn to 0.18bn</p> <p>ND(L) from Duty Free</p> <p>Duty Free ND(L) was increased by 0.23bn to account for non-smokers who buy Duty Free cigarettes who would not be captured in our ND(L) estimation methodology. This adjustment is based on consumer research by Counter Intelligence Retail Ltd (British Nationality Tobacco Shopper/ Buyer Report, May 2016) carried out on Duty Free tobacco shoppers. This adjustment is also made in France and Germany where similar research exists</p>

Methodology – Non-domestic legal analysis

Primary information sources and tools – Non-domestic legal major flow calculations

Austria									
Country		# of border crossings	Population 18+	Smoking prevalence	Smoker trips	Packs per trip	# of cigarettes	ND(L) volume	Total ND(L)
Czech Republic	Outbound								0.46bn
	Inbound								
Hungary	Outbound								0.23bn
	Inbound								
Slovenia	Outbound								0.19bn
	Inbound								
Slovakia	Outbound								0.13bn
	Inbound								
Others									0.44bn
Total									1.44bn

Belgium									
Country		# of border crossings	Population 18+	Smoking prevalence	Smoker trips	Packs per trip	# of cigarettes	ND(L) volume	Total ND(L)
Luxembourg	Outbound								0.18bn
	Inbound								
France	Outbound								0.13bn
	Inbound								
Netherlands	Outbound								0.07bn
	Inbound								
Germany	Outbound								0.05bn
	Inbound								
Others									0.36bn
Total									0.79bn

Bulgaria									
Country		# of border crossings	Population 18+	Smoking prevalence	Smoker trips	Packs per trip	# of cigarettes	ND(L) volume	Total ND(L)
Turkey	Outbound								0.02bn
	Inbound								
Serbia	Outbound	0.11m	83%	36%	0.03m	10	200	0.01bn	0.01bn
	Inbound	0.72m	83%	36%	0.21m	2	40	0.01bn	
Romania	Outbound								0.01bn
	Inbound								
The Republic Of North Macedonia	Outbound	0.06m	83%	36%	0.02m	10	200	0.00bn	0.01bn
	Inbound	0.63m	80%	34%	0.17m	2	40	0.01bn	
Others									0.09bn
Total									0.15bn

Note: Predominantly legal indicates that for the purposes of this report we have classified the flows as 100% ND(L), but recognise in reality that an element of the flow could be illicit as smuggling or imports over the allowed limits may occur

Methodology – Non-domestic legal analysis

Primary information sources and tools – Non-domestic legal major flow calculations

Croatia									
Country		# of border crossings	Population 18+	Smoking prevalence	Smoker trips	Packs per trip	# of cigarettes	ND(L) volume	Total ND(L)
Germany	Outbound								0.01bn
	Inbound								
Flows considered predominantly legal									
Bosnia And Herzegovina	Outbound	0.14m	83%	33%	0.04m	10	200	0.01bn	0.01bn
	Inbound	0.43m	83%	31%	0.11m	2	40	0.00bn	
Austria	Outbound								0.01bn
	Inbound								
Flows considered predominantly legal									
Serbia	Outbound	0.10m	83%	33%	0.03m	10	200	0.01bn	0.01bn
	Inbound	0.15m	83%	36%	0.05m	2	40	0.00bn	
Others									0.02bn
Total									0.07bn

Cyprus									
Country		# of border crossings	Population 18+	Smoking prevalence	Smoker trips	Packs per trip	# of cigarettes	ND(L) volume	Total ND(L)
Greece	Outbound								0.00bn
	Inbound								
Flows considered predominantly legal									
Romania	Outbound	0.02m	80%	30%	0.01m	40	800	0.00bn	0.00bn
	Inbound	0.10m	81%	23%	0.02m	2	40	0.00bn	
Sweden	Outbound	0.00m	80%	30%	0.00m	40	800	0.00bn	0.00bn
	Inbound	0.18m	79%	12%	0.02m	2	40	0.00bn	
Bulgaria	Outbound								0.00bn
	Inbound								
Flows considered predominantly legal									
Others									0.02bn
Total									0.02bn

Czech Republic									
Country		# of border crossings	Population 18+	Smoking prevalence	Smoker trips	Packs per trip	# of cigarettes	ND(L) volume	Total ND(L)
Poland	Outbound								0.20bn
	Inbound								
Flows considered predominantly legal									
Slovakia	Outbound								0.10bn
	Inbound								
Flows considered predominantly legal									
Germany	Outbound								0.06bn
	Inbound								
Flows considered predominantly legal									
Bulgaria	Outbound	0.25m	81%	27%	0.05m	40	800	0.04bn	0.04bn
	Inbound	0.04m	83%	36%	0.01m	2	40	0.00bn	
Others									0.23bn
Total									0.63bn

Note: Predominantly legal indicates that for the purposes of this report we have classified the flows as 100% ND(L), but recognise in reality that an element of the flow could be illicit as smuggling or imports over the allowed limits may occur

Methodology – Non-domestic legal analysis

Primary information sources and tools – Non-domestic legal major flow calculations

Denmark									
Country		# of border crossings	Population 18+	Smoking prevalence	Smoker trips	Packs per trip	# of cigarettes	ND(L) volume	Total ND(L)
Sweden	Outbound								0.08bn
	Inbound								
Germany	Outbound								0.03bn
	Inbound								
Spain	Outbound								0.03bn
	Inbound								
Poland	Outbound								0.02bn
	Inbound								
Others									0.23bn
Total									0.39bn

Estonia									
Country		# of border crossings	Population 18+	Smoking prevalence	Smoker trips	Packs per trip	# of cigarettes	ND(L) volume	Total ND(L)
Finland	Outbound								0.01bn
	Inbound								
Latvia	Outbound								0.01bn
	Inbound								
Russia	Outbound	0.51m	81%	28%	0.11m	2	40	0.00bn	0.01bn
	Inbound	0.27m	79%	28%	0.06m	2	40	0.00bn	
Lithuania	Outbound								0.00bn
	Inbound								
Others									0.03bn
Total									0.06bn

Finland									
Country		# of border crossings	Population 18+	Smoking prevalence	Smoker trips	Packs per trip	# of cigarettes	ND(L) volume	Total ND(L)
Estonia	Outbound	0.78m	81%	17%	0.11m	40	800	0.09bn	0.09bn
	Inbound	0.10m	81%	28%	0.02m	2	40	0.00bn	
Russia	Outbound	0.81m	81%	17%	0.11m	10	200	0.02bn	0.03bn
	Inbound	0.42m	79%	28%	0.09m	2	40	0.00bn	
Latvia	Outbound	0.20m	81%	17%	0.03m	40	800	0.02bn	0.02bn
	Inbound	0.03m	81%	32%	0.01m	2	40	0.00bn	
Spain	Outbound								0.01bn
	Inbound								
Others									0.18bn
Total									0.32bn

Note: Predominantly legal indicates that for the purposes of this report we have classified the flows as 100% ND(L), but recognise in reality that an element of the flow could be illicit as smuggling or imports over the allowed limits may occur

Methodology – Non-domestic legal analysis

Primary information sources and tools – Non-domestic legal major flow calculations

France									
Country		# of border crossings	Population 18+	Smoking prevalence	Smoker trips	Packs per trip	# of cigarettes	ND(L) volume	Total ND(L)
Spain	Outbound								3.04bn
	Inbound								
Belgium	Outbound								1.50bn
	Inbound								
Luxembourg	Outbound								0.58bn
	Inbound								
Germany	Outbound	1.92m	79%	32%	0.48m	40	800	0.38bn	0.49bn
	Inbound	12.54m	84%	26%	2.73m	2	40	0.11bn	
Others									2.96bn
Total									8.57bn

Germany									
Country		# of border crossings	Population 18+	Smoking prevalence	Smoker trips	Packs per trip	# of cigarettes	ND(L) volume	Total ND(L)
Poland	Outbound								3.98bn
	Inbound								
Czech Republic	Outbound								3.67bn
	Inbound								
Luxembourg	Outbound								0.34bn
	Inbound								
Austria	Outbound								0.24bn
	Inbound								
Others									3.07bn
Total									11.30bn

Greece									
Country		# of border crossings	Population 18+	Smoking prevalence	Smoker trips	Packs per trip	# of cigarettes	ND(L) volume	Total ND(L)
Bulgaria	Outbound								0.03bn
	Inbound								
Turkey	Outbound								0.02bn
	Inbound								
Albania	Outbound								0.02bn
	Inbound								
Romania	Outbound								0.01bn
	Inbound								
Others									0.14bn
Total									0.20bn

Note: Predominantly legal indicates that for the purposes of this report we have classified the flows as 100% ND(L), but recognise in reality that an element of the flow could be illicit as smuggling or imports over the allowed limits may occur

Methodology – Non-domestic legal analysis

Primary information sources and tools – Non-domestic legal major flow calculations

Hungary									
Country		# of border crossings	Population 18+	Smoking prevalence	Smoker trips	Packs per trip	# of cigarettes	ND(L) volume	Total ND(L)
Ukraine	Outbound	0.78m	82%	29%	0.18m	10	200	0.04bn	0.07bn
	Inbound	3.89m	82%	24%	0.77m	2	40	0.03bn	
Serbia	Outbound	Figure based on tourism statistics and border region consumption analysis						0.02bn	
	Inbound								
Slovakia	Outbound	Flows considered predominantly legal						0.01bn	
	Inbound								
Germany	Outbound	Flows considered predominantly legal						0.01bn	
	Inbound								
Others								0.08bn	
Total									0.19bn

Ireland									
Country		# of border crossings	Population 18+	Smoking prevalence	Smoker trips	Packs per trip	# of cigarettes	ND(L) volume	Total ND(L)
UK	Outbound	Flows considered predominantly legal						0.12bn	
	Inbound								
Spain	Outbound	Flows considered predominantly legal						0.12bn	
	Inbound								
Italy	Outbound	Flows considered predominantly legal						0.04bn	
	Inbound								
Germany	Outbound	0.24m	76%	21%	0.04m	40	800	0.03bn	0.04bn
	Inbound	0.84m	84%	26%	0.18m	2	40	0.01bn	
Others								0.29bn	
Total									0.61bn

Italy									
Country		# of border crossings	Population 18+	Smoking prevalence	Smoker trips	Packs per trip	# of cigarettes	ND(L) volume	Total ND(L)
Slovenia	Outbound	0.61m	84%	23%	0.12m	40	800	0.09bn	0.13bn
	Inbound	5.30m	82%	21%	0.91m	2	40	0.04bn	
Romania	Outbound	Flows considered predominantly legal						0.07bn	
	Inbound								
Spain	Outbound	Flows considered predominantly legal						0.07bn	
	Inbound								
Germany	Outbound	Figure based on tourism statistics and border region consumption analysis						0.04bn	
	Inbound								
Others								0.78bn	
Total									1.09bn

Note: Predominantly legal indicates that for the purposes of this report we have classified the flows as 100% ND(L), but recognise in reality that an element of the flow could be illicit as smuggling or imports over the allowed limits may occur

Methodology – Non-domestic legal analysis

Primary information sources and tools – Non-domestic legal major flow calculations

Latvia									
Country		# of border crossings	Population 18+	Smoking prevalence	Smoker trips	Packs per trip	# of cigarettes	ND(L) volume	Total ND(L)
Russia	Outbound	0.29m	81%	32%	0.08m	2	40	0.00bn	0.01bn
	Inbound	0.76m	79%	28%	0.17m	2	40	0.01bn	
Lithuania	Outbound	Flows considered predominantly legal							0.01bn
	Inbound								
Belarus	Outbound	0.25m	81%	32%	0.07m	2	40	0.00bn	0.01bn
	Inbound	0.33m	80%	25%	0.07m	2	40	0.00bn	
Ukraine	Outbound	0.05m	81%	32%	0.01m	10	200	0.00bn	0.00bn
	Inbound	0.10m	82%	24%	0.02m	2	40	0.00bn	
Other									0.03bn
Total									0.05bn

Lithuania									
Country		# of border crossings	Population 18+	Smoking prevalence	Smoker trips	Packs per trip	# of cigarettes	ND(L) volume	Total ND(L)
Belarus	Outbound	1.52m	82%	25%	0.31m	2	40	0.01bn	0.01bn
	Inbound	0.16m	80%	25%	0.03m	2	40	0.01bn	
Poland	Outbound	Flows considered predominantly legal							0.01bn
	Inbound								
Latvia	Outbound	Flows considered predominantly legal							0.01bn
	Inbound								
Russia	Outbound	0.20m	82%	25%	0.04m	2	40	0.00bn	0.00bn
	Inbound	0.20m	79%	28%	0.04m	2	40	0.00bn	
Other									0.05bn
Total									0.08bn

Luxembourg									
Country		# of border crossings	Population 18+	Smoking prevalence	Smoker trips	Packs per trip	# of cigarettes	ND(L) volume	Total ND(L)
Belgium	Outbound	0.13m	81%	20%	0.02m	40	800	0.02bn	0.02bn
	Inbound	0.21m	80%	23%	0.04m	2	40	0.00bn	
France	Outbound	Flows considered predominantly legal							0.01bn
	Inbound								
Germany	Outbound	Flows considered predominantly legal							0.01bn
	Inbound								
Croatia	Outbound	0.01m	81%	20%	0.00m	40	800	0.00bn	0.00bn
	Inbound	0.00m	83%	33%	0.00m	2	40	0.00bn	
Others									0.01bn
Total									0.05bn

Note: Predominantly legal indicates that for the purposes of this report we have classified the flows as 100% ND(L), but recognise in reality that an element of the flow could be illicit as smuggling or imports over the allowed limits may occur

Methodology – Non-domestic legal analysis

Primary information sources and tools – Non-domestic legal major flow calculations

Malta									
Country		# of border crossings	Population 18+	Smoking prevalence	Smoker trips	Packs per trip	# of cigarettes	ND(L) volume	Total ND(L)
Italy	Outbound								0.00bn
	Inbound								
Flows considered predominantly legal									
Spain	Outbound								0.00bn
	Inbound								
Flows considered predominantly legal									
Poland	Outbound	0.01m	83%	22%	0.00m	40	800	0.00bn	0.00bn
	Inbound	0.11m	82%	24%	0.02m	2	40	0.00bn	
Belgium	Outbound	0.01m	83%	22%	0.00m	40	800	0.00bn	0.00bn
	Inbound	0.09m	80%	23%	0.02m	2	40	0.00bn	
Other									0.01bn
Total									0.01bn

Netherlands									
Country		# of border crossings	Population 18+	Smoking prevalence	Smoker trips	Packs per trip	# of cigarettes	ND(L) volume	Total ND(L)
Germany	Outbound								0.37bn
	Inbound								
Figure based on tourism statistics and border region consumption analysis									
Belgium	Outbound								0.21bn
	Inbound								
Flows considered predominantly legal									
Spain	Outbound								0.12bn
	Inbound								
Flows considered predominantly legal									
UK	Outbound								0.08bn
	Inbound								
Flows considered predominantly legal									
Other									0.82bn
Total									1.61bn

Poland									
Country		# of border crossings	Population 18+	Smoking prevalence	Smoker trips	Packs per trip	# of cigarettes	ND(L) volume	Total ND(L)
Ukraine	Outbound	1.05m	82%	24%	0.21m	2	40	0.01bn	0.09bn
	Inbound	10.31m	82%	24%	2.05m	2	40	0.08bn	
Germany	Outbound								0.05bn
	Inbound								
Flows considered predominantly legal									
Russia	Outbound	0.56m	82%	24%	0.11m	10	200	0.02bn	0.04bn
	Inbound	2.28m	79%	28%	0.50m	2	40	0.02bn	
Belarus	Outbound	0.72m	82%	24%	0.14m	2	40	0.01bn	0.04bn
	Inbound	4.46m	80%	25%	0.89m	2	40	0.04bn	
Other									0.32bn
Total									0.55bn

Note: Predominantly legal indicates that for the purposes of this report we have classified the flows as 100% ND(L), but recognise in reality that an element of the flow could be illicit as smuggling or imports over the allowed limits may occur

Methodology – Non-domestic legal analysis

Primary information sources and tools – Non-domestic legal major flow calculations

Portugal									
Country		# of border crossings	Population 18+	Smoking prevalence	Smoker trips	Packs per trip	# of cigarettes	ND(L) volume	Total ND(L)
Spain	Outbound								0.13bn
	Inbound								
France	Outbound								0.02bn
	Inbound								
Brazil	Outbound	0.14m	83%	25%	0.03m	10	200	0.01bn	0.01bn
	Inbound	0.42m	74%	12%	0.12m	2	40	0.00bn	
Canada	Outbound	0.03m	83%	25%	0.01m	10	200	0.00bn	0.00bn
	Inbound	0.44m	81%	13%	0.04m	2	40	0.00bn	
Others									0.08bn
Total									0.25bn

Romania									
Country		# of border crossings	Population 18+	Smoking prevalence	Smoker trips	Packs per trip	# of cigarettes	ND(L) volume	Total ND(L)
Ukraine	Outbound	0.71m	81%	23%	0.13m	10	200	0.03bn	0.04bn
	Inbound	1.60m	82%	24%	0.32m	2	40	0.01bn	
Greece	Outbound								0.04bn
	Inbound								
Moldova	Outbound	0.06m	81%	23%	0.01m	10	200	0.00bn	0.02bn
	Inbound	2.57m	81%	23%	0.47m	2	40	0.02bn	
Serbia	Outbound	0.09m	81%	23%	0.02m	10	200	0.00bn	0.01bn
	Inbound	0.61m	83%	36%	0.18m	2	40	0.01bn	
Others									0.13bn
Total									0.24bn

Slovakia									
Country		# of border crossings	Population 18+	Smoking prevalence	Smoker trips	Packs per trip	# of cigarettes	ND(L) volume	Total ND(L)
Czech Republic	Outbound								0.05bn
	Inbound								
Ukraine	Outbound	0.27m	81%	27%	0.06m	10	200	0.01bn	0.02bn
	Inbound	0.92m	82%	24%	0.18m	2	40	0.01bn	
Austria	Outbound								0.01bn
	Inbound								
Hungary	Outbound								0.01bn
	Inbound								
Others									0.05bn
Total									0.13bn

Note: Predominantly legal indicates that for the purposes of this report we have classified the flows as 100% ND(L), but recognise in reality that an element of the flow could be illicit as smuggling or imports over the allowed limits may occur

Methodology – Non-domestic legal analysis

Primary information sources and tools – Non-domestic legal major flow calculations

Slovenia									
Country		# of border crossings	Population 18+	Smoking prevalence	Smoker trips	Packs per trip	# of cigarettes	ND(L) volume	Total ND(L)
Croatia	Outbound								0.13bn
	Inbound								
Flows considered predominantly legal									
Italy	Outbound								0.02bn
	Inbound								
Flows considered predominantly legal									
Greece	Outbound	0.06m	82%	21%	0.01m	40	800	0.01bn	0.01bn
	Inbound	0.01m	83%	36%	0.00m	2	40	0.00bn	
Poland	Outbound	0.05m	83%	21%	0.01m	40	800	0.01bn	0.00bn
	Inbound	0.15m	82%	24%	0.03m	2	40	0.00bn	
Others									0.06bn
Total									0.17bn

Spain									
Country		# of border crossings	Population 18+	Smoking prevalence	Smoker trips	Packs per trip	# of cigarettes	ND(L) volume	Total ND(L)
Gibraltar	Outbound								1.02bn
	Inbound								
Figure based on tourism statistics and border region consumption analysis									
Andorra	Outbound								0.24bn
	Inbound								
Figure based on tourism statistics and border region consumption analysis									
Canary Islands	Outbound								0.12bn
	Inbound								
Figure based on tourism statistics and border region consumption analysis									
Italy	Outbound								0.04bn
	Inbound								
Flows considered predominately legal									
Others									0.40bn
Total									1.83bn

Sweden									
Country		# of border crossings	Population 18+	Smoking prevalence	Smoker trips	Packs per trip	# of cigarettes	ND(L) volume	Total ND(L)
Latvia	Outbound	0.55m	79%	12%	0.05m	40	800	0.04bn	0.04bn
	Inbound	0.03m	81%	32%	0.01m	2	40	0.00bn	
Poland	Outbound	0.42m	79%	12%	0.04m	40	800	0.03bn	0.03bn
	Inbound	0.11m	82%	24%	0.02m	2	40	0.00bn	
Denmark	Outbound								0.02bn
	Inbound								
Flows considered predominantly legal									
Spain	Outbound								0.01bn
	Inbound								
Flows considered predominantly legal									
Others									0.25bn
Total									0.35bn

Note: Predominantly legal indicates that for the purposes of this report we have classified the flows as 100% ND(L), but recognise in reality that an element of the flow could be illicit as smuggling or imports over the allowed limits may occur

Methodology – Non-domestic legal analysis

Primary information sources and tools – Non-domestic legal major flow calculations

UK ^(a)									
Country		# of border crossings	Population 18+	Smoking prevalence	Smoker trips	Packs per trip	# of cigarettes	ND(L) volume	Total ND(L)
Spain	Outbound	Flows considered predominantly legal							1.66bn
	Inbound								
Poland	Outbound	2.50m	79%	22%	0.43m	40	800	0.34bn	0.62bn
	Inbound	1.71m	82%	25%	0.37m	37	740	0.27bn	
Romania	Outbound	0.24m	79%	17%	0.03m	40	800	0.03bn	0.18bn
	Inbound	1.04m	81%	23%	0.19m	40	800	0.15bn	
Canary Islands	Outbound	5.14m	79%	17%	0.68m	10	200	0.14bn	0.14bn
	Inbound	0.00m	82%	0%	0.00m	0	0	0.00bn	
Others									1.51bn
Total									4.10bn

Norway									
Country		# of border crossings	Population 18+	Smoking prevalence	Smoker trips	Packs per trip	# of cigarettes	ND(L) volume	Total ND(L)
Sweden	Outbound	Flows considered predominantly legal							0.16bn
	Inbound								
Spain	Outbound	Flows considered predominantly legal							0.02bn
	Inbound								
Poland	Outbound	0.55m	79%	15%	0.06m	10	200	0.01bn	0.01bn
	Inbound	0.15m	82%	24%	0.03m	2	40	0.00bn	
Italy	Outbound	0.41m	79%	15%	0.05m	10	200	0.01bn	0.01bn
	Inbound	0.16m	84%	23%	0.03m	2	40	0.00bn	
Others									0.34bn
Total									0.54bn

Switzerland									
Country		# of border crossings	Population 18+	Smoking prevalence	Smoker trips	Packs per trip	# of cigarettes	ND(L) volume	Total ND(L)
France	Outbound	Figure based on tourism statistics and border region consumption analysis							0.28bn
	Inbound								
Germany	Outbound	Flows considered predominantly legal							0.21bn
	Inbound								
Italy	Outbound	Flows considered predominantly legal							0.06bn
	Inbound								
Spain	Outbound	Flows considered predominantly legal							0.04bn
	Inbound								
Others									0.48bn
Total									1.07bn

Notes: (a) Smoking prevalence has been weighted to take account of the nationality and gender of the travellers between Poland and the UK; (b) Predominantly legal indicates that for the purposes of this report we have classified the flows as 100% ND(L), but recognise in reality that an element of the flow could be illicit as smuggling or imports over the allowed limits may occur

Methodology – Illicit Whites analysis

Illicit Whites brand flows continued to account for over a third of total C&C volumes in the EU

Illicit Whites are defined as

- Cigarettes that are usually produced legally in one country/market but, which the evidence suggests, have been smuggled across borders during their transit to the destination market under review where they have limited or no legal distribution and are sold without payment of tax

KPMG undertook the following analysis to determine which brands made up Illicit Whites brand flows:

- Illicit volumes were compared to LDS on a country by country basis to determine the share of total consumption
- KPMG conservatively assumed that where non-domestic volumes represented >99% of total consumption, the brand is an Illicit White
- Where Illicit Whites packs do not have any country-specific tax stamps, they are categorised as ‘Illicit Whites with no country-specific labelling’ in the report. This includes Duty Free labelled packs.
- Once identified, the brand’s overall volume is determined only in countries where the brand flow meets the 99% criteria

Many of the Illicit Whites flows are identified in high volumes in the empty pack survey. However, given our identification of counterfeit product is limited to the empty pack survey survey participants, we cannot assess whether these flows are genuine or counterfeit

Non-domestic volumes by brand and destination country				
Brand	Country 1	Country 2	Country 3	Country 4
Brand A	0.01	0.24	0.01	0.01

LDS by brand and by country				
Brand	Country 1	Country 2	Country 3	Country 4
Brand A	-	0.00	-	0.01

Non-domestic volumes as share of total consumption				
Brand	Country 1	Country 2	Country 3	Country 4
Brand A	100%	100%	100%	38%

Illicit White volumes by brand and by destination country				
Brand	Country 1	Country 2	Country 3	Country 4
Brand A	0.01	0.24	0.01	-

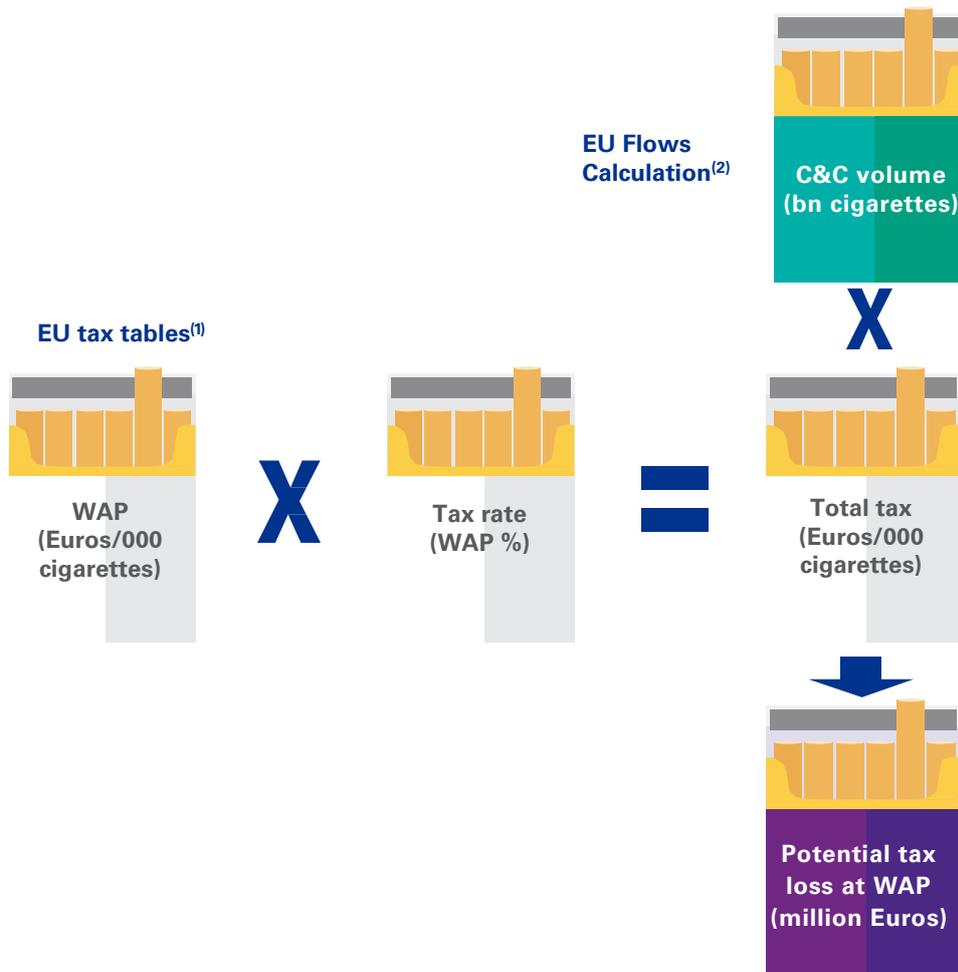
Classified as an Illicit White in country 2 where there is no evidence of legal distribution

Not classified as an Illicit White in country 4 where non-domestic volumes are 38% of consumption

Methodology – Tax Revenue Loss

The report estimates the excise and VAT revenue that would have been gained had the volume of C&C cigarettes consumed in a country been legally purchased in that country

- The calculation shown below was performed for each country:
 - EU tax tables were used to determine the Weighted Average Price^(a) for cigarettes in March 2019
 - This is then multiplied by the tax rate (as a % of WAP)
 - The resultant tax take (per cigarette) is multiplied by the C&C consumption volumes for that country per the EU Flows Calculation to give the total potential tax loss based on WAP
- Total tax losses for the EU countries and the UK based on WAP were estimated to be €9.5bn in 2019. This was a decrease versus prior year (2018: €10.3bn)
- KPMG also estimated tax losses for Norway and Switzerland in 2019 using the tax rates in these countries and WAP available through public sources⁽³⁾⁽⁴⁾⁽⁵⁾
- Tax losses are calculated based on sales volumes and are not reflective of any other factors, like affordability or price elasticity and are always reported at what would have been lost if the C&C had been purchased legally



Note: (a) WAP denotes Weighted Average Price per pack of 20 cigarettes
 Sources: (1) EC Excise Duty tables (Part III – Manufactured Tobacco) as at March 2019 (2) KPMG EU Flows Calculation and analysis of data sources provided by manufacturers (3) Tax rate, Switzerland Federal Customs Administration as on January 2018 (4) Norway Weighted Average Price, Nielsen Off-take data (5) Tax rate, The Norwegian Tax Administration, 2019



KPMG

Appendices



Appendices – Limitation of Results

Limitation	Detail	Impact	Adjustment
Geographic coverage	<ul style="list-style-type: none"> We have limited our geographic coverage in some markets where the inclusion of additional territories would impact confidence levels in the ND(L) research In some instances (e.g. Greek islands), LDS data is also insufficient for the purposes of this study 	<ul style="list-style-type: none"> Spanish results only cover mainland Spain and do not include the Canary Islands, Balearic Islands or Ceuta & Melilla French results cover only mainland France and do not include Corsica. As a result, LDS from Corsica are not included in France consumption figures Portuguese results only cover mainland Portugal and do not include Madeira or the Azores Greek results only cover mainland Greece and do not include the Greek islands UK results only cover Great Britain and Northern Ireland and do not include the Channel Islands or Isle of Man 	Not adjusted for
Non-major manufacturer counterfeit	<ul style="list-style-type: none"> Empty pack survey results do not identify counterfeit packs that have been made by manufacturers other than British American Tobacco, Imperial Tobacco, Japan Tobacco International, and Philip Morris International as only the manufacturer/trademark owner can confirm whether their brand pack is genuine^(a) 	<ul style="list-style-type: none"> In some instances, the volume of legal domestic consumption may be overstated where domestic counterfeit variants exist, leading to corresponding understatements of C&C volumes for some brands (although the impact is likely to be minimal) We cannot distinguish non-major manufacturer brand counterfeit (non-domestic variants) and contraband product, although this will not impact the overall volume of C&C Illicit Whites volumes may include counterfeit 	Not adjusted for
OTP	<ul style="list-style-type: none"> Empty pack surveys collect cigarette packs only Non-domestic consumption for OTP cannot be measured via empty pack survey results 	<ul style="list-style-type: none"> Reports in a number of countries suggest that non-domestic consumption of OTP may have been growing in recent years. These observations are supported by Customs organisations in some countries 	Not adjusted for
Non-EU outflows	<ul style="list-style-type: none"> In order to calculate consumption, we have assumed no outflows of LDS outside the 30 countries of study 	<ul style="list-style-type: none"> Non-EU LDS outflows are not considered to be material for all countries of study except Luxembourg. This is because of the high prices relative to other parts of the world and Duty Free import restrictions. This is supported by market discussions and non-EU empty pack surveys For Luxembourg, additional research by industry participants indicates that there is a significant outflow of cigarettes to non-EU markets and has been adjusted for 	Not adjusted for except Luxembourg

Note: (a) Phillip Morris International counterfeit data only is included for Germany in 2018 and 2019

Appendices – Limitation of Results

Source	Limitation
Empty pack survey	<p>Whilst the empty pack survey for every country is designed to be representative of the overall population, in some countries, owing to the geographical circumstances or demographics it is not possible to ensure that the sample is fully representative. This may be because:</p> <ul style="list-style-type: none"> — The sample is more heavily weighted towards populous, urban areas and therefore may not be fully representative of consumption habits in rural regions — Homes and workplaces or public spaces are not covered <p>Results from Germany are based on a monthly analysis of approximately 15,000 packs collected at recycling centres. Therefore, they are not directly comparable with the empty pack survey results from other countries due to the difference in the methodology. However, both methods produce similar results (see page 189 for details)^(a)</p> <p>Although empty pack survey dates are selected to minimise seasonal factors, there may be specific events that impact the results such as significant price changes between countries and major national events which result in large numbers visiting the country, such as the Olympics or World Cup</p> <ul style="list-style-type: none"> — In some instances the timing of empty pack surveys has changed between years. In order to ensure comparability of results, monthly LDS figures, consumption trends and visitor data are all analysed and adjustments made where appropriate — Where there are specific outflows related to tourism limited to the summer months, the reported numbers may underrepresent the full picture as the empty pack survey will only capture one point in time <p>Brand and market variant share can only be extrapolated with a degree of statistical accuracy for brands where a sufficiently large number of packs have been collected</p> <p>Empty pack survey results are analysed to identify any outliers that may impact results, such as geographic concentrations of a specific brand or market variant. Brand specific data is also compared to known sales in the source market to identify whether results are credible</p> <ul style="list-style-type: none"> — Where data suggests a sampling or data capture error may have occurred at a specific location, results are adjusted and the remainder of the survey is re-weighted accordingly <p>In some specific instances it is not possible to differentiate between Duty Free and Duty Paid variants from the empty packs collected</p> <ul style="list-style-type: none"> — In some countries it is possible to purchase duty free labelled product but, when travelling within the EU, duty is in fact paid on the product. It is not possible to determine this distinction — The study also does not take account of various duty free loopholes that exist for some travel within the EU^(b)

Notes: (a) 180,689 packs were collected as part of the YBS in Germany. Only a summarised version of the file with 37,502 data lines was provided to KPMG
 (b) With the exception of Aaland island off the coast of Finland

Appendices – Limitation of Results

Source	Limitation
LDS	<ul style="list-style-type: none"> — In some cases tax stamp data may not correspond to the calendar year and may also be distorted by inventory holdings in advance of increases in taxation. In these instances we have used the LDS source considered by local country management to be representative of smoker consumption during the calendar year, or official government data sources — Slight timing variances may arise between the date the product was shipped and actual consumption but, following discussions with local management, this is not considered significant and the full year LDS information we have is considered to be a fair and accurate representation in each market
ND(L)	<ul style="list-style-type: none"> — From 2014, we have used business and tourism travel data from sources such as the UN World Tourism Organization and national statistics offices to calculate the number of trips made — We have calculated the volume of cigarettes purchased by assuming that smokers purchase the Duty Free limit, or the indicative legal limit for intra-EU travel — This may over-weight ND(L) volume as a proportion of the total non-domestic flow — Comparison of ND(L) volumes as calculated by travel flows analysis with historic consumer research has ensured that some of these limitations have been corrected, such as the number of packs purchased per trip — We assume that traveller demographics are the same as the domestic population. It is likely that travellers will be older on average, with fewer under 18s. This may under-estimate ND(L) — In order to determine the ND(L) brand split, the brand shares from the empty pack surveys were used. Refer to page 191 for details

Appendices – Empty pack survey results by country

Empty pack survey results for EU 28 countries, Norway and Switzerland^(a)

EU 28 countries, Norway and Switzerland		Number of packs collected				ND incidence in empty pack survey			
Region		2016	2017	2018	2019	2016	2017	2018	2019
Austria		13,002	13,000	13,000	13,000	18%	17%	14%	16%
Belgium		5,600	5,600	5,600	5,600	9%	9%	14%	17%
Bulgaria		13,000	14,050	26,000	23,200	9%	8%	5%	3%
Croatia		3,000	3,000	3,000	3,000	6%	3%	7%	8%
Cyprus		1,000	1,000	1,000	1,000	9%	8%	10%	16%
Czech Republic		21,004	21,004	21,004	21,004	4%	4%	9%	9%
Denmark		5,500	5,500	5,500	5,000	5%	7%	7%	10%
Estonia		6,600	6,600	9,900	6,600	16%	14%	13%	11%
Finland		5,800	12,000	6,000	5,000	14%	20%	17%	16%
France		23,000	34,500	46,000	46,000	27%	21%	27%	28%
Germany		270,275	189,210	191,012	180,689	8%	17%	16%	17%
Greece		14,000	14,000	14,000	12,000	19%	19%	25%	24%
Hungary		19,895	19,905	19,902	17,240	7%	8%	9%	10%
Ireland		20,000	10,000	5,000	5,000	30%	35%	29%	34%
Italy		40,000	40,000	30,099	40,000	8%	4%	7%	5%
Latvia		9,800	9,800	14,700	9,800	25%	23%	21%	17%
Lithuania		19,200	12,800	19,200	11,600	19%	20%	19%	20%
Luxembourg		400	400	400	400	7%	7%	8%	11%
Malta		1,000	1,000	1,000	1,000	19%	18%	11%	10%
Netherlands		28,000	14,000	21,000	14,000	18%	25%	20%	19%
Poland		51,000	51,000	51,000	37,500	16%	14%	12%	10%
Portugal		3,000	3,000	3,000	3,000	3%	4%	6%	8%
Romania		15,152	15,148	7,581	15,125	17%	16%	16%	13%
Slovakia		6,400	6,400	6,400	5,000	5%	7%	9%	6%
Slovenia		3,000	3,000	3,000	3,000	13%	12%	19%	15%
Spain		30,000	30,000	30,000	30,000	9%	10%	9%	8%
Sweden		10,000	10,000	10,000	10,000	13%	13%	13%	16%
UK		50,800	50,800	12,700	12,700	26%	29%	35%	27%
Norway		5,000	5,000	10,000	5,000	43%	44%	44%	38%
Switzerland		6,600	6,600	5,600	5,600	15%	12%	12%	14%
Total		430,753	608,317	592,598	548,058	16%	16%	16%	17%

Note: (a) Only base survey data in the empty pack surveys have been summarised in this table, i.e. 'focus' samples designed to investigate particular regional phenomena are excluded as they do not form part of the statistically representative national sample.

Appendices – Empty pack survey results by country

Austria and Belgium results by region, 2016-19^{(1)(2)(a)}

Austria 	Number of packs collected				ND incidence in empty pack survey			
	Region	2016	2017	2018	2019	2016	2017	2018
Burgenland	440	440	440	440	26%	29%	16%	14%
Kärnten	850	850	850	850	18%	23%	21%	23%
Niederösterreich	2,486	2,484	2,484	2,484	25%	16%	13%	14%
Oberösterreich	2,178	2,178	2,178	2,178	15%	18%	15%	15%
Salzburg	816	816	816	816	12%	13%	12%	16%
Steiermark	1,854	1,854	1,854	1,854	15%	13%	12%	15%
Tirol	1,104	1,104	1,104	1,104	7%	9%	9%	12%
Vorarlberg	574	574	574	574	23%	34%	13%	16%
Wien	2,700	2,700	2,700	2,700	20%	17%	18%	20%
Total	13,002	13,000	13,000	13,000	18%	17%	14%	16%

Belgium 	Number of packs collected				ND incidence in empty pack survey			
	Region	2016	2017	2018	2019	2016	2017	2018
Aalst	200	200	200	200	8%	14%	15%	11%
Anderlecht	240	240	240	240	9%	12%	17%	15%
Antwerp	1,100	1,100	1,100	1,100	8%	15%	16%	15%
Arlon	160	160	160	160	7%	11%	14%	47%
Brugge	240	240	240	240	8%	8%	10%	20%
Brussels	380	380	380	380	6%	14%	12%	25%
Charleroi	460	460	460	460	11%	10%	9%	16%
Genk	200	200	200	200	9%	9%	10%	13%
Gent	500	500	500	500	6%	6%	15%	18%
Hasselt	200	200	200	200	10%	7%	21%	18%
Kortrijk	200	200	200	200	6%	5%	11%	14%
Leuven	200	200	200	200	17%	5%	15%	15%
Liege	440	440	440	440	13%	6%	12%	17%
Mechelen	200	200	200	200	8%	7%	13%	16%
Mons	200	200	200	200	10%	6%	10%	12%
Namur	240	240	240	240	7%	6%	10%	14%
Sambreville	160	160	160	160	6%	7%	9%	15%
Schaerbeek	280	280	280	280	5%	6%	22%	14%
Total	5,600	5,600	5,600	5,600	9%	9%	14%	17%

Note: (a) Only base survey data in the empty pack surveys have been summarised in the tables, i.e. 'focus' samples designed to investigate specific issues have been excluded as they do not form part of the national statistically representative sample

Sources: (1) Ipsos marketing empty pack surveys, 2016-2019

(2) MS Intelligence Empty Pack Surveys, 2016-2019

Appendices – Empty pack survey results by country

Bulgaria results by region, 2016-19^{(1)(a)}

Bulgaria 	Number of packs collected				ND incidence in empty pack survey			
	Region	2016	2017	2018	2019	2016	2017	2018
Blagoevgrad	500	500	1,000	600	13%	13%	7%	5%
Burgas	663	666	1,332	1,332	5%	5%	4%	3%
Dobric	300	300	600	600	8%	5%	5%	3%
Gabrovo	300	500	600	600	2%	6%	3%	1%
Grad Sofia	3,744	3,528	7,056	7,056	6%	6%	4%	3%
Haskovo	1,035	1,162	2,324	1,524	14%	16%	11%	5%
Jambol	272	300	600	600	6%	12%	4%	2%
Kjustendil	400	500	1,000	-	22%	18%	8%	-
Lovec	344	536	672	672	4%	5%	10%	5%
Montana	400	300	600	-	5%	5%	5%	-
Pazardzik	268	500	600	600	10%	14%	5%	4%
Pernik	282	300	600	600	26%	9%	13%	6%
Plovdiv	1,264	1,414	2,828	2,828	14%	7%	7%	5%
Ruse	492	742	984	984	6%	4%	3%	3%
Sliven	301	300	600	600	11%	10%	3%	3%
Sumen	283	300	600	600	3%	3%	3%	2%
Varna	1,102	1,102	2,204	2,204	6%	3%	4%	3%
VelikoTarnovo	400	500	600	600	4%	5%	9%	6%
Vidin	300	300	600	600	8%	12%	9%	3%
Vratsa	150	300	600	600	3%	6%	3%	4%
Total	13,000	14,050	26,000	23,200	9%	8%	5%	3%

Note: (a) Only base survey data in the empty pack surveys have been summarised in the tables, i.e. 'focus' samples designed to investigate specific issues have been excluded as they do not form part of the national statistically representative sample

Source: (1) Nielsen empty pack surveys, 2016-2019

Appendices – Empty pack survey results by country

Croatia, Cyprus and Czech Republic results by region, 2016-19^{(1)(2)(a)}

Croatia 	Number of packs collected				ND incidence in empty pack survey			
	Region	2016	2017	2018	2019	2016	2017	2018
Osijek	193	193	193	193	13%	7%	28%	18%
Pula	132	132	132	132	1%	1%	13%	6%
Rijeka	294	294	295	295	3%	3%	11%	2%
Sesvete	126	126	124	124	4%	3%	1%	10%
Slavonski Brod	124	124	123	123	46%	2%	39%	46%
Split	383	383	384	384	4%	3%	6%	5%
Zadar	163	163	164	164	0%	3%	6%	8%
Zagreb	1,585	1,585	1,585	1,585	3%	3%	2%	7%
Total	3,000	3,000	3,000	3,000	6%	3%	7%	8%

Cyprus 	Number of packs collected				ND incidence in empty pack survey			
	Region	2016	2017	2018	2019	2016	2017	2018
Larnaca	150	150	150	150	8%	13%	14%	16%
Limassol	300	300	300	300	8%	5%	7%	10%
Nicosia	400	400	400	400	10%	8%	10%	21%
Paphos	150	150	150	150	13%	10%	14%	19%
Total	1,000	1,000	1,000	1,000	9%	8%	10%	16%

Czech Republic 	Number of packs collected				ND incidence in empty pack survey			
	Region	2016	2017	2018	2019	2016	2017	2018
Jihocesky Kraj	724	724	724	724	3%	6%	7%	5%
Jihomoravsky Kraj	2,148	2,148	2,148	2,148	4%	4%	7%	10%
Karlovarsky Kraj	300	300	300	300	4%	6%	6%	9%
Kralovehradecky Kraj	526	526	526	526	4%	4%	7%	3%
Liberecky Kraj	1,034	1,034	1,034	1,034	4%	4%	10%	8%
Moravoslezsky Kraj	3,332	3,332	3,332	3,332	4%	4%	13%	14%
Olomoucky Kraj	1,062	1,062	1,062	1,062	5%	4%	10%	7%
Pardubicky Kraj	510	510	510	510	4%	7%	5%	3%
Plzensky Kraj	948	948	948	948	4%	5%	8%	8%
Praha	7,114	7,114	7,114	7,114	4%	5%	8%	8%
Stredocesky Kraj	636	636	636	636	3%	4%	6%	5%
Ustecky Kraj	1,750	1,750	1,750	1,750	5%	5%	8%	6%
Vysocina	496	496	496	496	5%	4%	6%	8%
Zlinsky Kraj	424	424	424	424	3%	4%	8%	5%
Total	21,004	21,004	21,004	21,004	4%	4%	9%	9%

Note: (a) Only base survey data in the empty pack surveys have been summarised in the tables, i.e. 'focus' samples designed to investigate specific issues have been excluded as they do not form part of the national statistically representative sample

Sources: (1) Nielsen empty pack surveys, 2016-2019
(2) Ultex empty pack surveys, 2016-2019

Appendices – Empty pack survey results by country

Denmark and Estonia results by region, 2016-19^{(1)(2)(a)}

Denmark 	Number of packs collected				ND incidence in empty pack survey			
	Region	2016	2017	2018	2019	2016	2017	2018
Capital Region	2,613	2,612	2,612	2,612	4%	7%	8%	12%
Mid Jutland	1,211	1,211	1,211	1,011	5%	5%	6%	10%
North Jutland	422	422	422	422	4%	7%	9%	5%
South Denmark	1,105	1,105	1,105	955	4%	8%	5%	8%
Zealand	150	150	150	-	5%	3%	3%	-
Total	5,500	5,500	5,500	5,000	5%	7%	7%	10%

Estonia- 	Number of packs collected				ND incidence in empty pack survey			
	Region	2016	2017	2018	2019	2016	2017	2018
Har	3,200	3,200	4,800	3,200	11%	10%	13%	10%
Ida	1,100	1,100	1,650	1,100	33%	27%	15%	14%
Lääne	200	200	300	200	17%	15%	6%	12%
Lvi	200	200	300	200	15%	19%	11%	9%
Pär	300	300	450	300	20%	14%	10%	11%
Saa	200	200	300	200	11%	11%	13%	2%
Tar	800	800	1,200	800	11%	16%	12%	12%
Val	200	200	300	200	22%	14%	26%	30%
Vil	200	200	300	200	15%	14%	21%	6%
Võr	200	200	300	200	22%	15%	18%	12%
Total	6,600	6,600	9,900	6,600	16%	14%	13%	11%

Note: (a) Only base survey data in the empty pack surveys have been summarised in the tables, i.e. 'focus' samples designed to investigate specific issues have been excluded as they do not form part of the national statistically representative sample

Sources: (1) MS Intelligence Empty Pack Surveys, 2016-2019

(2) Nielsen empty pack surveys, 2016-2019

Appendices – Empty pack survey results by country

Finland and France results by region, 2016-19^{(1)(2)(a)}

Finland 	Number of packs collected				ND incidence in empty pack survey			
	2016	2017	2018	2019	2016	2017	2018	2019
Etela-Karjala	-	-	500	-	-	-	26%	-
Keski-Suomi	319	634	315	315	13%	19%	11%	7%
Kymenlaakso	206	399	193	193	14%	17%	16%	16%
Lappi	200	2000	200	-	12%	27%	10%	-
Paijat-Hame	246	517	271	271	15%	18%	12%	11%
Pirkanmaa	523	1040	517	517	13%	18%	9%	16%
Pohjois-Karjala	-	-	300	-	-	-	16%	-
Pohjois-Savo	252	519	267	267	13%	22%	9%	6%
Prohiois-Pohianmaa	459	913	454	454	13%	16%	5%	7%
Uusimaa	2563	5121	2,558	2,558	15%	18%	22%	20%
Varsinais-Suomi	432	857	425	425	12%	18%	12%	19%
Total	5200	12000	6,000	5,000	14%	20%	17%	16%

France 	Number of packs collected				ND incidence in empty pack survey			
	2016	2017	2018	2019	2016	2017	2018	2019
Alsace Lorraine Champagne Ardennes	2,200	3,300	4,000	4,000	31%	23%	32%	36%
Aquitaine	1,400	2,100	2,456	2,456	29%	26%	26%	26%
Auvergne Limousin	1,000	1,500	1,500	1,500	25%	18%	21%	16%
Basse Haute Normandie	1,600	2,400	2,804	2,804	20%	12%	18%	19%
Bourgogne Franche Comte	2,000	3,000	3,200	3,200	25%	16%	19%	22%
Bretagne	2,000	3,000	3,600	3,600	18%	14%	17%	15%
Centre	1,000	1,500	2,000	2,000	20%	16%	16%	18%
Ile De France	3,000	4,500	7,200	7,200	28%	21%	27%	33%
Languedoc Roussillon Midi Pyrenees	1,600	2,400	3,200	3,200	33%	31%	37%	37%
Nord Picardie	2,000	3,000	4,396	4,396	32%	24%	36%	34%
Pays De Loire Poitou Charentes	1,600	2,400	3,284	3,284	20%	12%	20%	17%
Provence Alpes Cote D Azur	1,600	2,400	3,600	3,600	29%	28%	30%	30%
Rhone Alpes	2,000	3,000	4,760	4,760	30%	22%	25%	25%
Total	23,000	34,500	46,000	46,000	27%	21%	27%	28%

Note: (a) Only base survey data in the empty pack surveys have been summarised in the tables, i.e. 'focus' samples designed to investigate specific issues have been excluded as they do not form part of the national statistically representative sample

Sources: (1) MS Intelligence Empty Pack Surveys, 2016-2019

(2) WSPM empty pack surveys, 2019

Appendices – Empty pack survey results by country

Germany and Greece results by region, 2016-19^{(1)(2)(a)}

Germany 	Number of packs collected				ND incidence in empty pack survey			
	2016	2017	2018	2019	2016	2017	2018	2019
Lower Saxony	53,128	33,210	30,894	30,389	4%	9%	9%	9%
North Rhine-Westphalia	33,696	29,928	40,642	38,754	6%	10%	9%	10%
Rheinland-Phalz	37,897	19,711	24,849	22,897	5%	9%	9%	10%
Baden-Wuerttemberg	34,960	24,985	25,417	21,845	3%	8%	9%	11%
Bayern	41,375	29,688	31,018	28,725	10%	20%	20%	22%
Berlin	11,897	12,000	8,332	8,702	20%	44%	43%	42%
Brandenburg	21,138	11,488	14,893	16,440	16%	30%	27%	31%
Saxony	36,184	28,200	14,967	12,937	12%	44%	43%	37%
Total	270,275	189,210	191,012	180,689	8%	17%	16%	17%

Greece 	Number of packs collected				ND incidence in empty pack survey			
	2016	2017	2018	2019	2016	2017	2018	2019
Attica	4,600	4,600	4,600	4,600	22%	21%	27%	27%
Central Greece	400	400	400	400	20%	20%	23%	18%
Central Macedonia	3,000	3,000	3,000	2,400	23%	23%	25%	23%
Crete	1,000	1,000	1,000	1,000	14%	12%	19%	20%
East Macedonia/Thrace	800	800	800	-	15%	17%	23%	-
Epirus	600	600	600	400	19%	21%	24%	17%
Ionian Islands	400	400	400	400	17%	14%	22%	27%
South Aegean	400	400	400	400	16%	13%	20%	14%
Thessaly	1,200	1,200	1,200	1,200	16%	17%	23%	24%
West Greece	1,200	1,200	1,200	1,200	17%	18%	27%	23%
West Macedonia	400	400	400	-	13%	17%	24%	-
Total	14,000	14,000	14,000	12,000	19%	19%	25%	24%

Note: (a) Only base survey data in the empty pack surveys have been summarised in the tables, i.e. 'focus' samples designed to investigate specific issues have been excluded as they do not form part of the national statistically representative sample

Sources: (1) Ipsos Yellow Bag Surveys, 2016-2019

(2) Nielsen empty pack surveys, 2016-2019

Appendices – Empty pack survey results by country

Hungary and Ireland results by region, 2016-19^{(1)(2)(a)}

Hungary 	Number of packs collected				ND incidence in empty pack survey			
	Region	2016	2017	2018	2019	2016	2017	2018
Bács-Kiskun	979	980	980	775	8%	8%	8%	9%
Baranya	645	645	645	645	7%	7%	9%	9%
Békés	758	760	760	555	6%	9%	9%	8%
Borsod-Abaúj-Zemplén	1,465	1,465	1,465	850	11%	11%	13%	16%
Budapest	6,250	6,250	6,250	6,250	6%	8%	10%	9%
Csongrád	1,310	1,310	1,309	900	6%	10%	8%	10%
Fejér	640	640	640	640	5%	6%	8%	9%
Gyor-Moson-Sopron	934	934	932	934	6%	7%	9%	9%
Hajdú-Bihar	1,194	1,195	1,195	990	9%	9%	11%	12%
Heves	390	390	390	390	6%	9%	7%	10%
Jász-Nagykun-Szolnok	518	520	520	315	10%	10%	10%	10%
Komárom-Esztergom	440	440	440	440	7%	7%	7%	10%
Nógrád	165	165	165	165	6%	9%	11%	12%
Pest	1,233	1,235	1,235	1,235	7%	7%	7%	7%
Somogy	490	490	490	285	4%	6%	5%	6%
Szabolcs-Szatmár-Bereg	1,097	1,099	1,099	485	12%	11%	13%	16%
Tolna	145	145	145	145	4%	8%	6%	9%
Vas	335	335	335	335	5%	6%	7%	7%
Veszprém	417	417	417	417	3%	7%	7%	6%
Zala	490	490	490	489	2%	7%	4%	8%
Total	19,895	19,905	19,902	17,240	7%	8%	9%	10%

Ireland 	Number of packs collected				ND incidence in empty pack survey			
	Region	2016	2017	2018	2019	2016	2017	2018
Connacht	1,600	800	400	400	34%	34%	34%	36%
Leinster	12,900	6,450	3,225	3,225	30%	30%	30%	34%
Munster	5,100	2,550	1,275	1,275	25%	25%	25%	32%
Ulster	400	200	100	100	28%	28%	28%	26%
Total	20,000	10,000	5,000	5,000	29%	29%	29%	34%

Note: (a) Only base survey data in the empty pack surveys have been summarised in the tables, i.e. 'focus' samples designed to investigate specific issues have been excluded as they do not form part of the national statistically representative sample

Sources: (1) GFK Hungary empty pack surveys, 2016-2019
(2) MS Intelligence Empty Pack Surveys, 2016-2019

Appendices – Empty pack survey results by country

Italy and Latvia results by region, 2016-19^{(1)(2)(3)(a)}

Italy 	Number of packs collected				ND incidence in empty pack survey			
	Region	2016	2017	2018	2019	2016	2017	2018
Abruzzo	400	400	540	720	0%	2%	3%	3%
Calabria	552	556	660	880	7%	5%	1%	2%
Campania	3,648	3648	2,790	3,720	33%	21%	26%	16%
Emilia Romagna	4,416	4416	2,910	3,880	2%	1%	4%	3%
Friuli Venezia Giulia	608	608	480	640	21%	14%	14%	27%
Lazio	7,892	7892	5,490	7,320	3%	1%	8%	5%
Liguria	1,796	1796	1,260	1,680	4%	2%	4%	2%
Lombardia	5,284	5284	3,360	4,480	6%	4%	5%	5%
Marche	400	400	549	600	2%	1%	2%	3%
Piemonte	3,080	3080	2,190	2,920	5%	1%	6%	2%
Puglia	1,968	1968	2,220	2,960	7%	1%	6%	5%
Sicilia	3,920	3920	3,630	4,840	14%	9%	6%	4%
Toscana	2,128	2128	1,440	1,920	1%	1%	3%	3%
Trentino Alto Adige	400	400	300	400	1%	3%	3%	6%
Umbria	896	896	540	720	2%	1%	6%	1%
Veneto	2,612	2612	1,740	2,320	4%	1%	7%	5%
Total	40,000	40,000	30,099	40,000	8%	4%	7%	5%

Latvia 	Number of packs collected				ND incidence in empty pack survey			
	Region	2016	2017	2018	2019	2016	2017	2018
Kurzeme	1,200	1,200	1,800	1,200	22%	25%	18%	11%
Latgale	1,400	1,400	2,100	1,400	36%	40%	36%	26%
Pieriga	1,400	1,400	2,100	1,400	28%	21%	22%	18%
Riga	4,000	4,000	6,000	4,000	24%	19%	20%	16%
Vidzeme	800	800	1,200	800	18%	21%	15%	7%
Zemgale	1,000	1,000	1,500	1,000	19%	29%	17%	15%
Total	9,800	9,800	14,700	9,800	25%	23%	21%	17%

Note: (a) Only base survey data in the empty pack surveys have been summarised in the tables, i.e. 'focus' samples designed to investigate specific issues have been excluded as they do not form part of the national statistically representative sample

- Sources: (1) MS Intelligence Empty Pack Surveys, 2016-2018
(2) Ipsos empty pack surveys, 2019
(3) Nielsen empty pack surveys, 2016-2019

Appendices – Empty pack survey results by country

Lithuania, Luxembourg and Malta results by region, 2016-19^{(1)(2)(a)}

Lithuania 	Number of packs collected				ND incidence in empty pack survey			
	Region	2016	2017	2018	2019	2016	2017	2018
Alytus	1,200	800	1,200	600	24%	24%	25%	23%
Kaunas	4,500	3000	4,500	2,800	17%	19%	21%	23%
Klaipeda	2,400	1,600	2,400	1,600	12%	13%	11%	17%
Marijampole	900	600	900	400	21%	24%	24%	23%
Panevezys	1,200	800	1,200	600	25%	23%	24%	26%
Siauliai	1,200	800	1,200	800	30%	28%	20%	21%
Taurage	300	200	300	200	19%	13%	15%	22%
Telsiai	1,200	800	1,200	800	16%	15%	13%	11%
Utena	900	600	900	600	16%	20%	13%	24%
Vilnius	5,400	3600	5,400	3,200	18%	20%	19%	19%
Total	19,200	12,800	19,200	11,600	19%	20%	19%	20%

Luxembourg 	Number of packs collected				ND incidence in empty pack survey			
	Region	2016	2017	2018	2019	2016	2017	2018
Esch-Sur-Alzette	160	160	160	160	8%	7%	7%	13%
Luxembourg	240	240	240	240	7%	7%	9%	10%
Total	400	400	400	400	7%	7%	8%	11%

Malta 	Number of packs collected				ND incidence in empty pack survey			
	Region	2016	2017	2018	2019	2016	2017	2018
Northern	350	350	350	350	21%	19%	10%	10%
Northern Harbour	550	550	550	550	18%	18%	10%	10%
Southern Harbour	100	100	100	100	19%	15%	18%	10%
Total	1,000	1,000	1,000	1,000	19%	18%	11%	10%

Note: (a) Only base survey data in the empty pack surveys have been summarised in the tables, i.e. 'focus' samples designed to investigate specific issues have been excluded as they do not form part of the national statistically representative sample

Sources: (1) Nielsen empty pack surveys, 2016-2019

(2) MS Intelligence Empty Pack Surveys, 2016-2019

Appendices – Empty pack survey results by country

Netherlands, Poland results by region, 2016-19 ^{(1)(2)(a)}

Netherlands		Number of packs collected				ND incidence in empty pack survey			
Region	2016	2017	2018	2019	2016	2017	2018	2019	
Drenthe	404	202	303	202	19%	19%	21%	16%	
Flevoland	1,008	504	756	504	15%	25%	21%	29%	
Friesland	664	332	498	332	18%	16%	27%	15%	
Gelderland	2,168	1,084	1,626	1,084	15%	22%	18%	11%	
Groningen	728	364	546	364	15%	19%	17%	6%	
Limburg	1,504	752	1,128	752	23%	21%	22%	15%	
North Brabant	3,720	1,860	2,790	1,860	22%	21%	32%	15%	
North Holland	6,180	3,090	4,635	3,090	18%	29%	18%	24%	
Overijssel	1,984	992	1,488	992	19%	22%	14%	20%	
South Holland	7,888	3,944	5,916	3,944	17%	27%	17%	20%	
Utrecht	1,752	876	1,314	876	18%	31%	14%	22%	
Total	28,000	14,000	21,000	14,000	18%	25%	20%	19%	

Poland		Number of packs collected				ND incidence in empty pack survey			
Region	2016	2017	2018	2019	2016	2017	2018	2019	
Dolnoslaskie	3,900	3,900	3,900	3,000	6%	9%	9%	8%	
Kujawsko-Pomorskie	2,775	2,775	2,775	2,775	9%	9%	8%	9%	
Lodzkie	3,375	3,375	3,375	2,475	20%	20%	17%	13%	
Lubelskie	2,550	2,550	2,550	1,200	37%	29%	12%	8%	
Lubuskie	1,350	1,350	1,350	900	8%	10%	8%	6%	
Malopolskie	2,925	2,925	2,925	2,925	11%	9%	3%	3%	
Mazowieckie	8,100	8,100	8,100	6,750	24%	22%	15%	15%	
Opolskie	1,800	1,800	1,800	450	7%	6%	3%	5%	
Podkarpackie	2,850	2,850	2,850	600	29%	16%	16%	8%	
Podlaskie	1,425	1,425	1,425	975	35%	33%	34%	27%	
Pomorskie	2,325	2,325	2,325	2,325	2%	2%	7%	6%	
Slaskie	7,350	7,350	7,350	7,350	13%	12%	11%	8%	
Swietokrzyskie	1,575	1,575	1,575	675	12%	10%	4%	4%	
Warminsko-Mazurskie	2,400	2,400	2,400	1,050	47%	30%	32%	23%	
Wielkopolskie	4,050	4,050	4,050	2,250	0%	0%	1%	1%	
Zachodniopomorskie	2,250	2,250	2,250	1,800	8%	6%	7%	7%	
Total	51,000	51,000	51,000	37,500	16%	14%	12%	10%	

Note: (a) Only base survey data in the empty pack surveys have been summarised in the tables, i.e. 'focus' samples designed to investigate specific issues have been excluded as they do not form part of the national statistically representative sample

Sources: (1) MS Intelligence Empty Pack Surveys, 2016-2019
 (2) Almares Research empty pack surveys, 2016-2019

Appendices – Empty pack survey results by country

Portugal, Romania and Slovakia results by region, 2016-19^{(1)(2)(3)(a)}

Portugal 	Number of packs collected				ND incidence in empty pack survey			
	2016	2017	2018	2019	2016	2017	2018	2019
Center	200	200	200	200	1%	0%	0%	2%
Lisboa	900	1,900	1,900	1,900	6%	4%	4%	6%
North	1,900	900	900	900	3%	5%	10%	13%
Total	3,000	3,000	3,000	3,000	3%	4%	6%	8%

Romania 	Number of packs collected				ND incidence in empty pack survey			
	2016	2017	2018	2019	2016	2017	2018	2019
Bucharest	1,742	1,570	804	1,592	7%	7%	7%	5%
Center	1,583	1,592	756	1,427	2%	2%	2%	1%
North-East	2,399	2,824	1,441	2,683	42%	39%	37%	31%
North-West	2,048	1,937	967	1,979	21%	16%	18%	12%
South	2,005	1,897	867	1,754	2%	4%	3%	4%
South-East	1,948	1,959	1,074	2,267	13%	11%	10%	10%
South-West	1,798	1,784	818	1,700	24%	24%	16%	20%
West	1,629	1,585	854	1,723	24%	24%	25%	19%
Total	15,152	15,148	7,581	15,125	17%	16%	16%	13%

Slovakia 	Number of packs collected				ND incidence in empty pack survey			
	2016	2017	2018	2019	2016	2017	2018	2019
Banskobystricky Kraj	550	550	550	450	2%	7%	4%	3%
Bratislavsky Kraj	1,200	1,200	1,200	1,200	3%	3%	3%	3%
Kosicky Kraj	1,300	1,300	1,300	800	8%	10%	15%	11%
Nitriansky Kraj	850	850	850	650	4%	9%	10%	8%
Presovsky Kraj	1,100	1,100	1,100	600	7%	11%	13%	5%
Trenciansky Kraj	400	400	400	400	2%	4%	6%	4%
Trnavsky Kraj	400	400	400	300	3%	3%	3%	8%
Zilinsky Kraj	600	600	600	600	5%	5%	5%	2%
Total	6,400	6,400	6,400	5,000	5%	7%	9%	6%

Note: (a) Only base survey data in the empty pack surveys have been summarised in the tables, i.e. 'focus' samples designed to investigate specific issues have been excluded as they do not form part of the national statistically representative sample

Sources: (1) Ipsos empty pack surveys, 2016-2019

(2) Novel Study, 2016-2019

(3) Nielsen empty pack surveys, 2016-2019

Appendices – Empty pack survey results by country

Slovenia and Spain results by region, 2016-19^{(1)(2)(a)}

Slovenia 	Number of packs collected				ND incidence in empty pack survey			
	Region	2016	2017	2018	2019	2016	2017	2018
Celje	210	210	210	210	12%	10%	32%	14%
Koper	139	139	139	139	11%	9%	20%	15%
Kranj	208	208	208	208	13%	7%	18%	20%
Ljubljana	1,539	1,539	1,539	1,539	13%	13%	14%	15%
Maribor	531	531	531	531	15%	13%	15%	17%
Novo Mesto	130	130	130	130	11%	21%	35%	12%
Ptuj	101	101	101	101	12%	11%	38%	10%
Velenje	142	142	142	142	17%	8%	47%	13%
Total	3,000	3,000	3,000	3,000	13%	12%	19%	15%

Spain 	Number of packs collected				ND incidence in empty pack survey			
	Region	2016	2017	2018	2019	2016	2017	2018
Andalucia	5,176	5,176	5,176	5,176	28%	33%	31%	29%
Aragon	1,170	1,170	1,170	1,170	2%	3%	2%	2%
Asturias	858	858	858	858	2%	2%	1%	2%
Basque Country	1,534	1,534	1,534	1,534	5%	7%	3%	2%
Cantabria	304	304	304	304	2%	4%	1%	2%
CastillaY Leon	1,320	1,320	1,320	1,320	2%	4%	2%	2%
Castilla-La Mancha	296	296	296	296	1%	4%	3%	2%
Catalonia	5,394	5,394	5,394	5,394	7%	5%	6%	5%
Comunidad Valenciana	2,842	2,842	2,842	2,842	4%	4%	5%	2%
Extremadura	258	258	258	258	6%	2%	7%	1%
Galicia	1,130	1,130	1,130	1,130	4%	3%	2%	2%
La Rioja	262	262	262	262	2%	1%	0%	2%
Madrid	7,992	7,992	7,992	7,992	5%	6%	7%	6%
Murcia	1,126	1,126	1,126	1,126	4%	6%	4%	4%
Navarra	338	338	338	338	4%	3%	2%	1%
Total	30,000	30,000	30,000	30,000	9%	10%	9%	8%

Note: (a) Only base survey data in the empty pack surveys have been summarised in the tables, i.e. 'focus' samples designed to investigate specific issues have been excluded as they do not form part of the national statistically representative sample

Sources: (1) MS Intelligence Empty Pack Surveys, 2016-2019

(2) Ipsos empty pack surveys, 2016-2019

Appendices – Empty pack survey results by country

Sweden results by region, 2016-19^{(1)(2)(a)}

Sweden 	Number of packs collected				ND incidence in empty pack survey			
	Region	2016	2017	2018	2019	2016	2017	2018
Blekinge	150	150	150	150	16%	20%	8%	11%
Dalarna	150	150	150	150	11%	18%	6%	11%
Gastrikland	190	190	190	190	14%	12%	9%	17%
Halland	304	304	304	304	12%	11%	7%	13%
Jönköping	233	233	233	233	14%	13%	7%	13%
Kronoberg	154	154	154	154	15%	15%	5%	22%
Norrbotten	150	150	150	150	15%	10%	3%	9%
Örebro	272	272	272	272	12%	15%	13%	7%
Östergötland	500	500	500	500	12%	12%	8%	15%
Skåne	1,101	1,101	1,101	1,101	13%	12%	15%	15%
Smaland	150	150	150	150	13%	11%	17%	23%
Södermanland	316	316	316	316	14%	16%	10%	17%
Stockholm	3,284	3,284	3,284	3,284	13%	14%	20%	16%
Uppsala	355	355	355	355	14%	10%	7%	20%
Värmland	162	162	162	162	8%	18%	10%	15%
Västerbotten	359	359	359	359	10%	12%	5%	18%
Västernorrland	150	150	150	150	12%	14%	5%	16%
Västmanland	296	296	296	296	10%	14%	14%	12%
Västra Götaland	1,724	1,724	1,724	1,724	12%	11%	6%	15%
Total	10,031	10,000	10,000	10,000	13%	13%	13%	16%

Note: (a) Only base survey data in the empty pack surveys have been summarised in the tables, i.e. 'focus' samples designed to investigate specific issues have been excluded as they do not form part of the national statistically representative sample

Sources: (1) MS Intelligence Empty Pack Surveys, 2016-2018

(2) Global Vox Populi empty pack surveys, 2019

Appendices – Empty pack survey results by country

UK and Norway results by region, 2016-19^{(1)(2)(a)}

UK 	Number of packs collected				ND incidence in empty pack survey			
	Region	2016	2017	2018	2019	2016	2017	2018
East Midlands	4,000	4,000	1,000	1,000	26%	28%	42%	25%
East of England	4,400	4,400	1,100	1,000	28%	29%	31%	30%
London	6,000	6,000	1,500	1,500	27%	28%	30%	26%
North East England	2,000	2,000	500	500	27%	29%	64%	42%
North West England	5,196	5,196	1,299	1,299	28%	29%	34%	24%
Northern Ireland	2,000	2,000	500	500	27%	29%	50%	26%
Scotland	4,396	4,396	1,099	1,099	15%	24%	18%	19%
South East England	8,004	8,004	2,001	2,001	27%	34%	38%	27%
South West England	3,600	3,600	900	900	26%	32%	22%	27%
Wales	2,800	2,800	700	700	28%	27%	26%	27%
West Midlands	4,804	4,804	1,201	1,201	26%	28%	37%	25%
Yorkshire and The Humber	3,600	3,600	900	900	27%	28%	56%	32%
Total	50,800	50,800	12,700	12,700	26%	29%	35%	27%

Norway 	Number of packs collected				ND incidence in empty pack survey			
	Region	2016	2017	2018	2019	2016	2017	2018
Akershus	376	376	752	376	42%	43%	40%	33%
Hordaland	866	866	1,732	866	43%	43%	43%	38%
Oslo	2,012	2,012	4,024	2,012	45%	43%	49%	40%
Ostfold	248	248	496	248	44%	48%	44%	39%
Rogaland	419	419	838	419	42%	43%	43%	32%
Sor-Trondelag	579	579	1,158	579	43%	43%	34%	42%
Vest-Adger	273	227	454	227	39%	46%	43%	40%
Troms	227	273	546	273	42%	49%	42%	36%
Total	5,000	5,000	10,000	5,000	43%	44%	44%	38%

Note: (a) Only base survey data in the empty pack surveys have been summarised in the tables, i.e. 'focus' samples designed to investigate specific issues have been excluded as they do not form part of the national statistically representative sample

Sources: (1) MS Intelligence Empty Pack Surveys, 2016-2019

(2) Ipsos empty pack surveys, 2019

Appendices – Empty pack survey results by country

Switzerland results by region, 2016-19^{(1)(2)(a)}

Switzerland 	Number of packs collected				ND incidence in empty pack survey			
	Region	2016	2017	2018	2019	2016	2017	2018
Basel	400	400	400	400	15%	12%	13%	12%
Bern	900	900	300	900	12%	12%	11%	11%
Biel	-	-	200	-	-	-	6%	-
Chur	-	-	200	-	-	-	10%	-
Fribourg	200	200	200	200	14%	7%	7%	8%
Geneva	700	700	500	700	31%	12%	14%	23%
Grisons	200	200	-	200	13%	13%	-	13%
Jura	200	200	-	-	10%	9%	-	-
Koniz	-	-	200	-	-	-	10%	-
La Chaux De Fonds	-	-	200	-	-	-	10%	-
Lausanne	-	-	300	-	-	-	10%	-
Lugano	-	-	200	-	-	-	28%	-
Luzern	200	200	200	200	14%	9%	9%	13%
Neuchatel	400	400	200	400	11%	7%	12%	12%
Schaffhausen	200	200	200	200	12%	9%	14%	15%
Sion	-	-	200	-	-	-	12%	-
St Gallen	400	400	200	200	15%	12%	12%	6%
Thun	-	-	200	-	-	-	8%	-
Thurgau	200	200	-	-	12%	7%	-	-
Ticino	400	400	-	200	10%	31%	-	12%
Uster	-	-	200	-	-	-	8%	-
Valais	200	200	-	200	8%	7%	-	10%
Vaud	300	300	-	300	16%	6%	-	11%
Vernier	-	-	200	-	-	-	14%	-
Winterthur	-	-	300	-	-	-	8%	-
Zurich	1500	1500	1,000	1,500	12%	14%	12%	14%
Total	6600	6600	5,600	5,600	15%	12%	12%	14%

Note: (a) Only base survey data in the empty pack surveys have been summarised in the tables, i.e. 'focus' samples designed to investigate specific issues have been excluded as they do not form part of the national statistically representative sample

Sources: (1) MS Intelligence Empty Pack Surveys, 2016-2018

(2) WSPM empty pack surveys, 2019

Appendices – Sources

Macro-economic factors

The sources listed below are those used only in this year’s analysis and reporting. Sources for analysis and findings for previous years can be found in previous year reports.

GDP growth (annual %) ⁽¹⁾		
Country	2018	2019
Austria	2.1	1.6
Belgium	1.2	1.4
Bulgaria	3.1	3.4
Croatia	2.4	2.9
Cyprus	3.9	3.2
Czech Republic	2.6	2.6
Denmark	2.6	2.4
Estonia	4.2	4.3
Finland	2.2	1.0
France	0.9	1.3
Germany	0.6	0.6
Greece	1.6	1.9
Hungary	4.8	4.9
Ireland	2.6	5.5
Italy	0.0	0.3
Latvia	5.4	2.2
Lithuania	3.5	3.9
Luxembourg	3.0	2.3
Malta	6.4	4.4
Netherlands	2.0	1.8
Norway	1.8	1.2
Poland	4.6	4.1
Portugal	1.7	2.2
Romania	3.9	4.1
Slovakia	3.9	2.3
Slovenia	3.6	2.4
Spain	2.4	2.0
Sweden	2.3	1.2
Switzerland	1.5	0.9
United Kingdom	1.3	1.4

Unemployment rate (%) ⁽¹⁾		
Country	2018	2019
Austria	4.8	4.5
Belgium	5.9	5.4
Bulgaria	5.2	4.2
Croatia	8.5	6.7
Cyprus	9.8	7.1
Czech Republic	2.2	2.0
Denmark	5.0	5.1
Estonia	5.3	4.4
Finland	7.4	6.7
France	9.0	8.5
Germany	3.4	3.1
Greece	19.3	17.3
Hungary	3.7	3.4
Ireland	5.8	5.0
Italy	10.6	10.0
Latvia	7.4	6.3
Lithuania	6.3	6.3
Luxembourg	5.2	5.4
Malta	4.2	3.4
Netherlands	3.8	3.4
Norway	3.9	3.7
Poland	3.9	3.3
Portugal	7.0	6.5
Romania	4.2	3.9
Slovakia	6.6	5.8
Slovenia	5.4	4.5
Spain	15.3	14.1
Sweden	6.3	6.8
Switzerland	4.7	4.4
United Kingdom	4.1	3.8

Source: (1) Euromonitor

Appendices – Sources (cont.)

Data sources

The sources listed below are those used only in this year’s analysis and reporting. Sources for analysis and findings for previous years can be found in previous year reports.

Sources
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Prices, KPMG analysis of national taxes and retail price for a pack of 20 cigarettes, WHO 2016
Prices, Nielsen Off-take data, Norway, 2019
Prices and tax rates, EC Excise Duty Tables, March 2019 (Part III - Manufactured Tobacco)

Appendices – Sources (cont.)

Data sources

The sources listed below are those used only in this year’s analysis and reporting. Sources for analysis and findings for previous years can be found in previous year reports.

Sources
Real GDP growth, 2019, Euromonitor 2020 edition
Retail value RSP, Euromonitor, 2016-2018
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Tax rate, The Norwegian Tax Administration, 2019
Tobacco brought back from Algeria to France by travelers of direct flights, Kantar TNS for Philip Morris France, May 2018
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Tobacco sales, independent agencies for 27 markets in study, 2019(Nielsen, Local distributors, NMA, Finnish Food and Drink Ind. Federation, Altadis Distribution France, Papastratos, NCTA+PMI estimate, JP&S (ITL Ireland), GFK, Logista and Comisionado de Tabacos
Tobacco sales, Ministry of Finance, Customs Administration of Croatia, 2019
Tobacco sales, State Revenue Service of Latvia, 2019
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Tourism statistics, Canary Islands Government, 2019
Tourism statistics, Portugal, Travel BI
Tourism statistics, Statistical Bulletin commercial air traffic, Ministry for the Ecological and Inclusive Transition of France, 2014-2018
Tourism statistics, Statistics Austria, 2019
Tourism statistics, The Administration of State Frontier Service of Ukraine, 2014-2017
Tourism statistics, UK Office for National Statistics, Statistics for Travel Trends 2014-2018
Tourist movements at borders, The National Institute of Statistics and Economic Studies, France, 2018-19
Unemployment rate, 2019, Euromonitor 2020 edition
UNWTO Factbook
Volume assessment (among visitors), Andorra (Prepared for Phillip Morris International), Nielsen, March 2019
World Bank National Accounts Data, OECD National Accounts Data Files

Appendices – Scope of work

The scope of work below forms the basis of our contract with the Beneficiaries

Methodology and Reporting

1. As stated in this engagement letter, the Contractor will provide a PDF report which covers the results of the analysis undertaken.
2. The purpose of the study is to report on the estimated size and composition of the total cigarette market (including counterfeit and contraband products), as detailed below, for each of the 27 EU Member States, the UK, Norway and Switzerland.
3. The findings from the work on the 30 countries will be used both individually and to produce a summary covering an overall view of the total market for the 27 EU Member States and the UK (with Norway and Switzerland to be included in any individual country figures quoted), and an analysis of sources of illicit manufactured cigarettes, including reference to specific source countries and free trade zones where appropriate. The Contractor will also provide a section in the report on counterfeit and contraband flows for each of the 30 countries.
4. Each country report will include a table detailing total manufactured cigarette consumption from 2015 to 2019, along with charts showing the Non-Domestic Legal (ND(L)) and Counterfeit & Contraband (C&C) volumes by source country and by brand. The commentary will be brief and factual and will source publicly available data on tobacco prices, traveller data and total tobacco consumption where relevant. The commentary will also source other quantitative and qualitative research and analysis as deemed necessary, for example to validate trends in C&C.
5. The Contractor's analysis of the cigarette market will be based on a methodology that incorporates primary research, market analysis, existing industry surveys and other sources of data.
 - For each of the 30 countries, the Contractor will use in-market sales data to estimate Legal Domestic Sales and estimate Legal Domestic Consumption by subtracting outflows to other countries based on the results of empty pack surveys provided.
 - Non domestic inflows for each country will be based on the results of empty pack surveys and added to Legal Domestic Consumption to estimate Total Consumption.
 - Analysis of tourism flows and border sales data will be used to estimate the proportion of non-domestic inflows that are counterfeit and contraband for each of the 30 countries
- The bespoke methodology developed by the Contractor and used in previous reports will be used to analyse the inflows and outflows between all of the 30 countries, based on the data sources above.
- Additional data sources may be used to refine the contractor's analysis,
- The Contractor will include a high level summary of feedback received from meetings or interviews with Law Enforcement representatives where Law Enforcement representatives agree to participate in such meetings or interviews.
- The Contractor will include a methodology section in the report detailing the estimation process.
6. The Contractor will also conduct analysis on illicit whites which will be analysed in the same way as point 3 above. This will be reported in the consolidated section of the report. The Illicit Whites analysis may be used to factually state the possible country of origin and brand. It will not mention trademark owners.
7. Upon finalisation of the Contractor's work, the Contractor will provide separately to PMPSA data tables containing the following information:
 - Summary of EU total counterfeit and contraband inflows by source and destination market; and
 - Summary of Illicit Whites inflows by brand and destination market
 - Detailed analysis of total non-domestic outflows to the EU split by destination market and brand; and
 - Collation of both source and brand matrix to enable analysis of source and market in the same tables
8. The Contractor will present initial findings in the form of country specific reports. Subject to the Contractor's UK and local office approvals, members from the project team will also be made available to support external stakeholder presentations after the completion of the report under the terms of this agreement.

The presentations noted above will relate to the factual findings of the Report which will have already been made public. KPMG's presentation will not include any recommendations on regulation or policy. KPMG will present on its own and will not share a platform with any other organisation or audit clients.

Appendices – Scope of work (cont.)

Data Sources

Information from several independent sources will be used. These sources are set out below.

- Tobacco industry research, surveys and statistics;
 - 2019 empty pack survey data for the 30 countries included in the study.
 - In-market sales/ Legal Domestic Sales data.
 - Consumer survey data and statistics will be provided where available to help demonstrate trends discussed during the factual accuracy discussions and identify further areas of analysis.
- Estimates of non-domestic consumption (where available) will be shared during the factual accuracy discussions. These estimates provide evidence-based support for observed trends in each of the EU Member States, the UK, Switzerland and Norway and will remain confidential. This will comprise:
 - Detailed survey results; and
 - Information regarding the methodology and sampling plan.
 - Existing public studies and statistics
 - Research and data published by government agencies (including Ministries of Finance), health bodies, customs authorities, market researchers and academics will be provided by Industry Participants' teams to help corroborate findings.

Data from external sources will be obtained on a best efforts basis by the Contractor. The Contractor will require access to identified Industry Participant personnel throughout this engagement and the Contractor's ability to deliver this scope depends on this access being made available.



If you would like further information, please talk to your usual KPMG contact or contact:

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