



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

**2020 results**

**22 June 2021**



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# Glossary

<b>Average daily consumption</b>	Daily average consumption by the population of the legal smoking age
<b>BAT</b>	British American Tobacco plc
<b>Bn</b>	Billion
<b>C&amp;C</b>	Counterfeit and Contraband, including Illicit Whites
<b>CAGR</b>	Compound Annual Growth Rate
<b>Cigarette</b>	Any factory-made product that contains tobacco and is intended to be burned under ordinary conditions of use
<b>Cigarillos</b>	A short, narrow cigar, which, like cigarettes, is often machine-made and sold in packs
<b>Consumption</b>	Actual total consumption of cigarettes in a market, including Legal Domestic Consumption (LDC) and illicit products as well as those legally purchased overseas
<b>Contraband (CB)</b>	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
<b>Counterfeit (CF)</b>	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 manufacturers (BAT, ITL, JTI and PMI) participating in the empty pack surveys conducted by third party research agencies. No other counterfeit is included in the volumes reported due to lack of information
<b>Country of origin</b>	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
<b>Duty Free</b>	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
<b>EC</b>	European Commission
<b>E-cigarettes</b>	An electronic cigarette is a battery-operated device that emits a vaporized solution to inhale. Usually, the solution contains nicotine
<b>EU / EU27</b>	European Union

# Glossary

<b>EU Flows Calculation</b>	The primary methodology for measuring consumption in a market. The methodology has been developed by KPMG LLP on a bespoke basis for the specific purpose of measuring inflows and outflows of cigarettes in the scope of this project
<b>EUTPD</b>	European Union Tobacco Products Directive
<b>Fine cut</b>	Fine cut smoking tobacco intended for rolling of cigarettes
<b>FTZ</b>	Free trade zone
<b>HNB</b>	Heat-not-burn (HNB) products are tobacco products that produce aerosols containing nicotine and other chemicals, which are inhaled by users
<b>Illicit Whites (IW)</b>	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
<b>Illicit Whites with no country-specific labelling</b>	Packs of Illicit White Cigarettes which have “duty free” or no identifiable labelling on the packs
<b>IMS</b>	In Market Sales (the primary source of legal domestic sales volumes)
<b>Inflows</b>	Inflows of non-domestic product into a market. Refer to the methodology section for further details
<b>Outflows</b>	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
<b>ITL</b>	Imperial Tobacco Limited
<b>JTI</b>	JT International SA
<b>LDC</b>	Legal Domestic Consumption is defined as Legal Domestic Sales (LDS) net of outflows
<b>LDS</b>	Legal Domestic Sales of genuine domestic product through legitimate, domestic channels based on In Market Sales (IMS) data
<b>m</b>	Million
<b>MPPC</b>	Most Popular Price Category

# Glossary

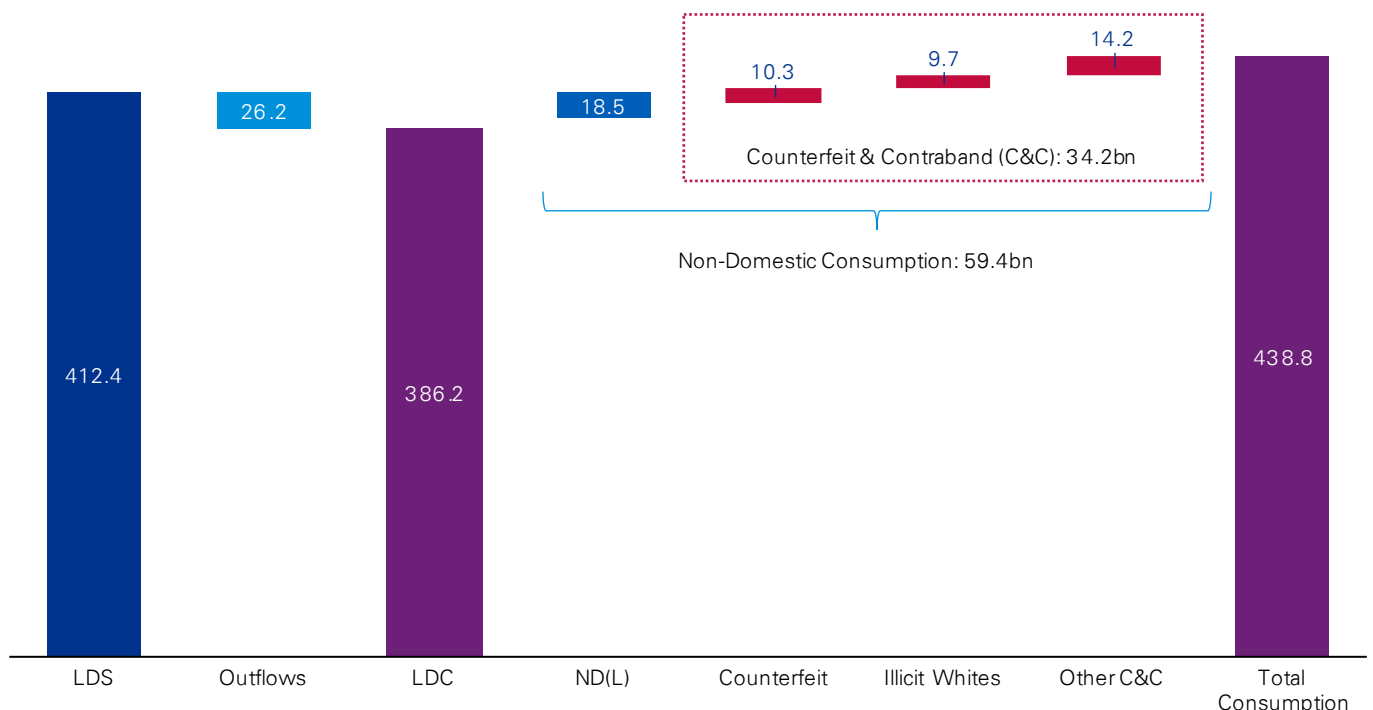
<b>MYO</b>	Make Your Own tobacco products. Refers to the process of creating your own cigarette with an option of choosing different tobacco types
<b>ND</b>	Non-Domestic product – product that originates from a different market than the one in which it is consumed
<b>ND(L)</b>	Non-Domestic (Legal) – product that is brought into the market legally by consumers, such as during a cross-border trip
<b>OCG</b>	Organised Criminal Groups
<b>OLAF</b>	Office Européen de Lutte Antifraude also known as the European Anti-Fraud Office
<b>OTP</b>	Other Tobacco Products (fine cut (RYO/MYO), cigarillos, portions, rolls and cigars; excluding smokeless tobacco and water-pipe tobacco)
<b>PMI</b>	Philip Morris International
<b>PMPSA</b>	Philip Morris Products SA
<b>RYO</b>	Roll Your Own tobacco products
<b>Smoking prevalence</b>	The percentage of smokers in the total population of the legal smoking age
<b>Tobacco taxes</b>	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
<b>Unspecified</b>	Unspecified market variant refers to cigarette packs which do not bear specific market labelling or Duty Free labelling
<b>UNWTO</b>	United Nations World Tourism Organisation
<b>WAP</b>	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

	<b>Page</b>
<b>Executive Summary</b>	8
<b>Country Reports</b>	26
<b>Methodology</b>	177
<b>Appendices</b>	211
1. Limitation of Results	212
2. COVID-19 impact on data sources and 2020 results	215
3. EU27 2020 results (Reported and extrapolated)	218
4. Empty pack survey results by country	220
5. Sources	236
6. Scope of work	239

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

**Estimate of total cigarette consumption in the EU27, 2020 (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 tobacco manufacturers) and Legal Domestic Sales (provided by manufacturers and third party market research agencies) allows us 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 estimate 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 the calculation of inflows and outflows around the EU27, UK, Norway and Switzerland 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 Methodology section.

# About this Report

This Report is the 2020 output from 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 2020. KPMG LLP was previously commissioned by Philip Morris Products SA to undertake Project Stella in 2020 (resulting in a 2019 report covering 2019 data). This study covers all 27 European Union member states in 2020, with an EU27 market overview. There are also individual country reports for the UK, 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 previous annual studies and the resulting 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 separately commissioned by the tobacco manufacturers and undertaken by independent market research agencies. KPMG's approach is to review these data-points to produce the relevant estimates. Details of the 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.





# Executive summary





# Executive summary

## 34.2bn

Counterfeit & Contraband cigarettes consumed



+0.8bn on 2019  
+2% on 2019



Of total consumption was C&C



+0.5ppt on 2019

## €8.5bn

Estimated tax revenue lost



+€1.3bn on 2019  
+17% on 2019

### In a market context of COVID-related travel restrictions and border controls, the decline of non-domestic cigarettes continued, along with a decrease in legal domestic consumption

- Legal Domestic Consumption continued to decline but increased its share of consumption to 88% in 2020, compared to 86% in 2019
- Non-domestic consumption volumes (both legal and illicit) declined by 18.5% in 2020, the highest decline noted in the reporting period (2016 to 2020). In 2020 they accounted for 12% of total consumption compared to 14% from 2016 to 2019
- Non-domestic legal accounted for 4.2% of total consumption (down from 6.8% in 2019) and illicit consumption accounted for 7.8% (up from 7.3% in 2019). This represents a 12.7bn cigarettes decline in non-domestic legal consumption in 2020 and a 0.8bn increase in illicit consumption. The decline in non-domestic legal cigarettes was the main driver of the reduction in cigarette consumption above the average annual rate seen over 2016 to 2019
- Total cigarette consumption declined by 4.7% in 2020 to 438.8bn cigarettes, faster than the trend of 2.3% observed between 2016-19. To put this 2020 decline in context, it coincided with growth of 6.0bn cigarette equivalents in the fine cut category in 2020<sup>(3)</sup>; the first growth seen during the reporting period. Some offset occurred between the two categories in 2020 suggesting the reduction of the wider tobacco market (i.e. cigarettes and fine cut) is in line with the 2016 to 2019 trend

### EU27 illicit cigarette consumption increased in 2020

- The increase in illicit consumption volumes represents the first illicit increase since 2011, although the 2020 amount of C&C of 34.2bn is still lower than 2018 (36.6bn cigarettes)
- Had these cigarettes been legally purchased in the countries in which they were identified, an additional c. €8.5bn in taxes would have been raised in the EU27<sup>(a)</sup>

### Increasing EU27 illicit consumption was driven by an increase in Counterfeit which almost doubled to reach the highest level recorded in this study, partly offset by declines in Illicit Whites and Other C&C

- Counterfeit increased by 87% and reached 10.3bn cigarettes, up from 5.5bn<sup>(b)</sup> driven by a 5.1bn or 609% increase in Counterfeit in France. Counterfeit now represents 30.1% of EU27 illicit consumption, compared to 16.5% in 2019
- Illicit Whites declined to 9.7bn cigarettes, representing 28.3% of total EU27 illicit consumption in 2020, compared to 13.2bn and 39.4% in 2019
- Other C&C, i.e. illicit flows excluding Counterfeit and Illicit Whites, declined to 14.2bn or 41.5% of total consumption, compared to 14.7bn and 44.0% in 2019

### Illicit flows from inside the EU27 increased, while those from outside the EU27 declined

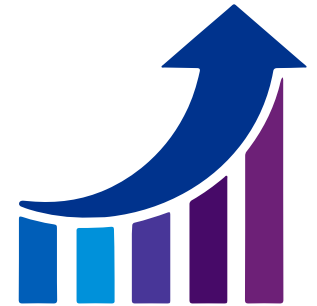
- Illicit flows between EU27 countries increased by 1.5bn
- Flows from identifiable markets outside the EU27 declined by 2.4bn with the largest changes being an increase of 0.9bn in Belarus labelled packs and a decrease of 0.6bn in Ukraine labelled packs

Note: (a) Excludes €2.2bn from the UK, which left the EU on 31 Jan 2020 (b) 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) KPMG, Project Stella, Illicit cigarette manufacturing in the EU, Nov 2019, (2) EU27 level results are an aggregation of the EU Flows Calculation results for the 27 EU member states, a detailed methodology and list of sources for each market is available in the methodology section of this report (3) Fine cut sales volumes from Euromonitor as at June 2021. Fine cut is converted into cigarette equivalents using 0.73g of tobacco per cigarette

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# Law enforcement discussions



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

Illicit trade continued despite lockdowns	Reduced sea freight impacted EU Illicit Whites volumes, but may have supported the increase in Counterfeit	Brand loyalty in Illicit Whites appears to have led to a change in packaging	Opportunistic OCGs are using the disruption caused by COVID-19 to enter other sectors	The full effect of Track and Trace will only be felt from 2021 onwards
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### Illicit trade continued despite lockdowns

- COVID-19 related movement restrictions were targeted at individuals rather than goods. Although traveller numbers declined significantly in 2020, the same cannot be assumed for illicit trade
- Furthermore, with Law Enforcement staffing levels and movement reduced due to sickness, self-isolation or social distancing requirements, some goods checks and monitoring could not be as strict as they were before the pandemic, potentially reducing barriers for organised criminal groups (OCGs)
- However, in areas where law enforcement has been able to target cross border shipments, especially from non-EU sources as noted below, they have successfully disrupted illicit supply chains

### Reduced sea freight impacted EU Illicit Whites volumes, but may have supported the increase in EU Counterfeit

- A coordinated EU focus on inbound sea freight is believed to have led to a decline in Illicit Whites volumes, the majority of which are believed to be non-EU in origin and arrive via sea ports
- Interviewees also believed sea-freight had been more impacted by COVID restrictions and disruption than other routes

- Some Law Enforcement agencies believed this has forced some illicit manufacturers to move their supply chains closer or into their end markets. This has led to a rise in domestic manufacturing, including Counterfeit
- This is further supported by ongoing illegal cigarette factory raids in multiple EU markets

### Brand loyalty in Illicit Whites appears to have led to a change in packaging

- There is some indication that brand loyalty is a factor for established Illicit White brands
- Consumers want to know they are getting the genuine Illicit White brand. As a result, Illicit Whites brands that previously bore no country-specific labelling are increasingly labelled as coming from their market of production. This has been particularly noted with Belarusian Illicit White brands

### Opportunistic OCGs are using the disruption caused by COVID-19 to enter other sectors

- Law Enforcement agencies saw continued opportunism from OCGs, showing willingness to target other sectors where they saw demand, for example supplying COVID-19 related PPE

### The full effect of Track and Trace will only be felt from 2021 onwards

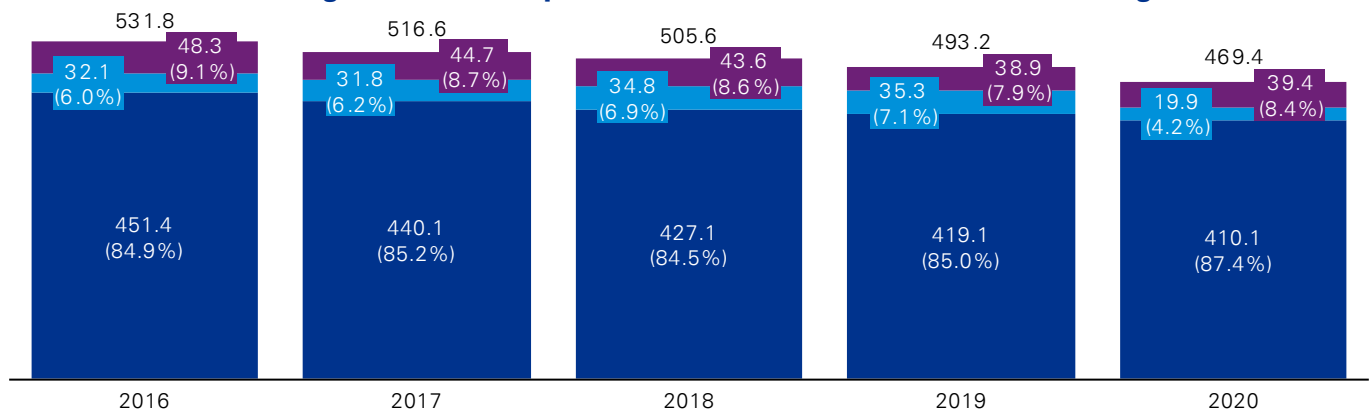
- The grace period, where products manufactured in or imported into the EU prior to May 2019 were not subject to Tobacco Product Directive 15 & 16, ran until May 2020
- EU Law Enforcement agencies have invested in making better use of the tool and expect to see the full effects from 2021 onwards

Source: (1) Interviews with five EU law enforcement agencies

# EU27 consumption trend (1)

— As the UK left the EU on 31 January 2020, data and commentary included in this Executive Summary is for the remaining 27 EU countries for 2020 as well as historical years (i.e. excluding the UK for all years). We have included EU consumption including the UK for 2016 to 2020 in the chart below to allow comparison. Also, throughout the rest of this Executive Summary we have excluded the UK from the analysis

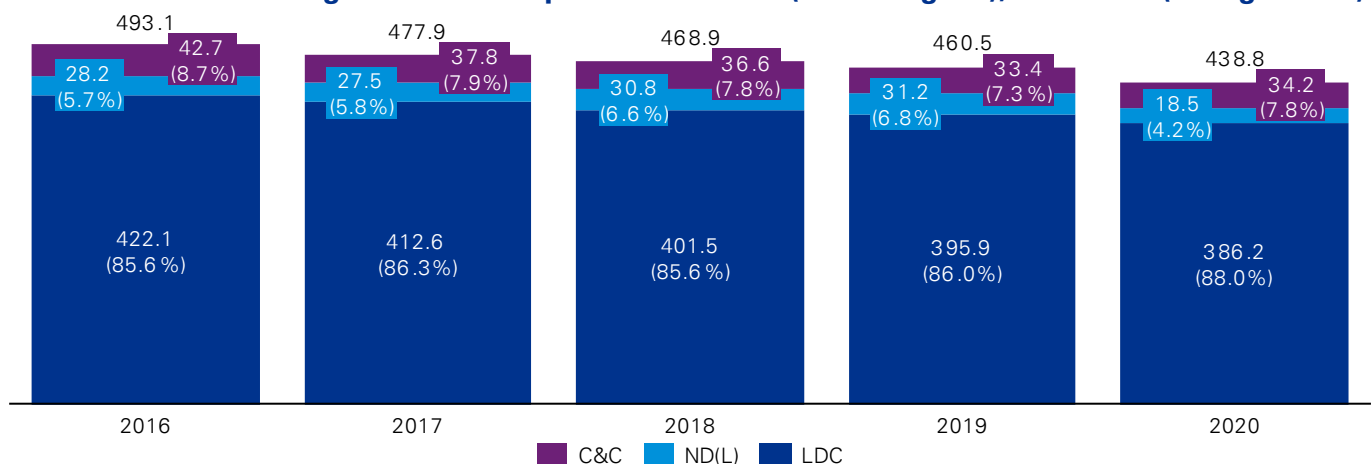
## Total manufactured cigarette consumption in the EU27 and UK, 2016-2020 (bn cigarettes)



— COVID-19 had a noticeable impact on cigarette consumption in the EU27 in 2020. EU27 (excluding UK) total cigarette consumption declined by 4.7% in 2020 to 438.8bn cigarettes, faster than the long term trend of 2.3% p.a. observed between 2016-19

— Whilst other factors will be at play (e.g. quitting smoking, switching to vaping and other tobacco products etc), we note that in the relatively cheaper<sup>(2)</sup> fine cut category sales grew by 6.0bn cigarette equivalents in 2020<sup>(3)</sup>, the first growth seen during the reporting period. This may have been exacerbated by EU27 personal disposable income per capita declining by 7% in 2020<sup>(3)</sup>. This indicates a reduction of the wider tobacco market of 2.8% in 2020, in line with the long-term trend of 2.4% p.a. between 2016 and 2019, and suggests there is a degree of offset between the two categories

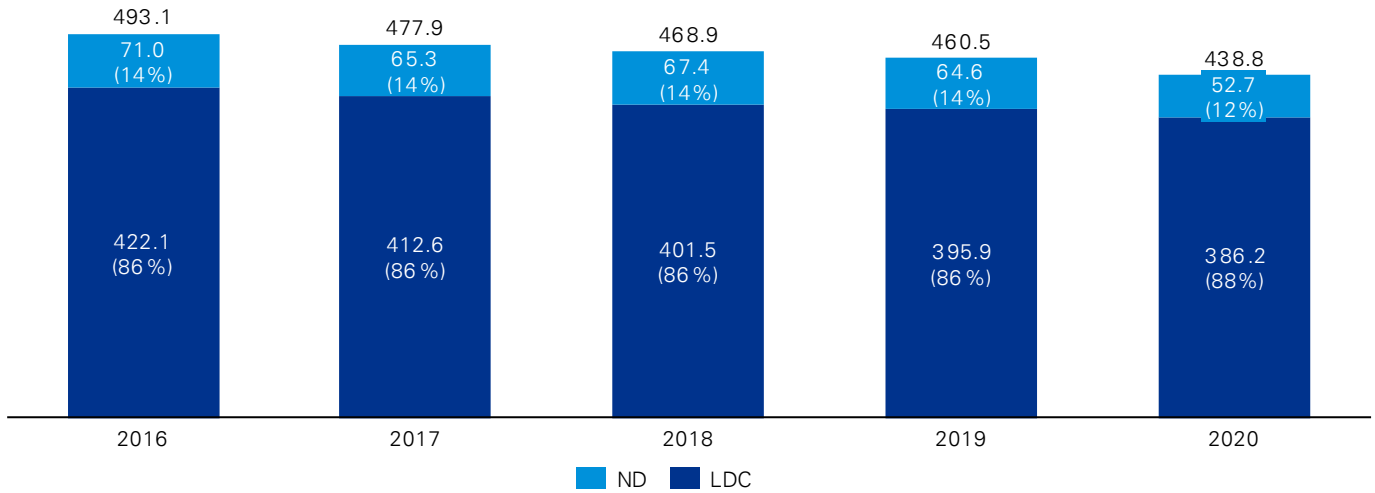
## Total manufactured cigarette consumption in the EU27 (excluding UK), 2016-2020 (bn cigarettes)



Source:(1) EU27 level results are an aggregation of the EU Flows Calculation results for the 27 EU member states, a detailed methodology and list of sources for each market is available in the methodology section of this report, (2) EC Excise Duty Tables, March 2021 (Part III – Manufactured Tobacco) (3) Fine cut sales volumes and PDI per capita from Euromonitor as at June 2021. Fine cut is converted into cigarette equivalents using 0.73g of tobacco per cigarette

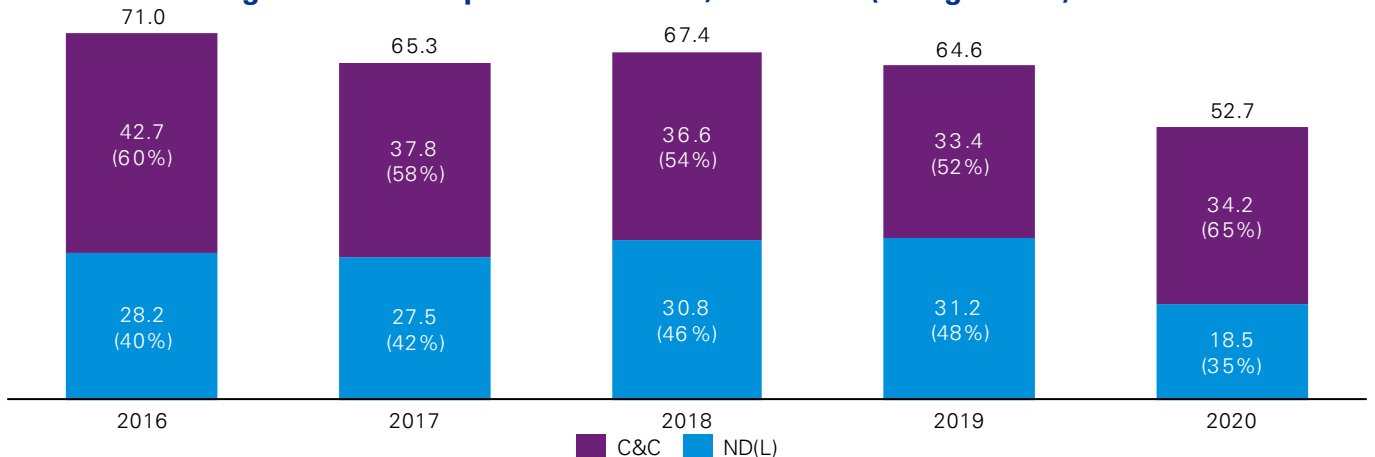
# EU27 consumption trend (2)

## Total manufactured cigarette consumption in the EU27, 2016-2020 (bn cigarettes)



- Non-domestic consumption volumes (including legal and illicit) fell in volume and as a percentage of consumption, declining by 11.9bn or 18.5% in 2020. This is the highest decline noted in the reporting period, and accounted for 12.0% of total consumption in 2020 compared to 14.0% in 2019
  - COVID-19 related travel restrictions led to a 41% decline in non-domestic legal volumes to reach 18.5 bn cigarettes or 35% of non-domestic consumption, compared to 48% in 2019
  - Illicit consumption partially offset the decline in ND(L), with C&C volumes increasing by 0.8bn cigarettes to 34.2bn cigarettes, forming 65% of non-domestic consumption in 2020 compared to 52% in 2019
- Legal Domestic Consumption declined by 2.4%, in line with the long-term average across 2016-2019
- As a result of the above, total consumption declined at a rate above the 2016 to 2019 trend (4.7% in 2020 vs 2.3% on average between 2016-19)

## Non-domestic cigarette consumption in the EU27, 2016-2020 (bn cigarettes)

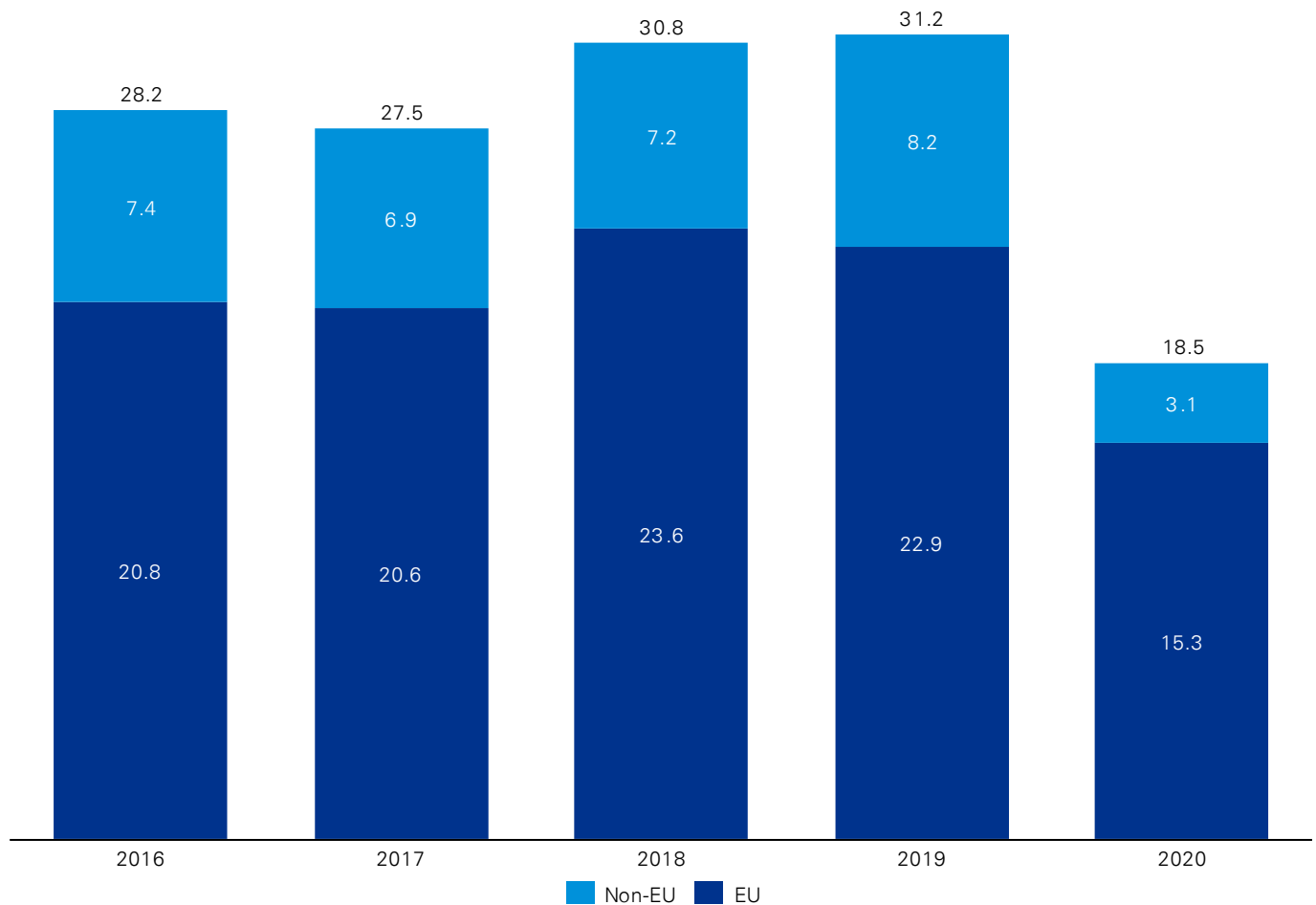


Source: (1) EU27 level results are an aggregation of the EU Flows Calculation results for the 27 EU member states, a detailed methodology and list of sources for each market is available in the methodology section of this report

# Non-domestic legal trend (ND(L)) (1)

- ND(L) volume consumed in the EU27 declined significantly in 2020, falling by 41% to 18.5bn cigarettes against the backdrop of COVID-19 related border closures, travel bans and restricted movement throughout the year, reaching the lowest level recorded in these annual studies
- Non-domestic legal inflows from the non-EU27 countries declined by 62% compared with 33% from the EU27 sources. This suggests that EU27-based consumers were still travelling to purchase cheaper cigarettes from neighbouring markets when possible, as intra EU27 travel bans were shorter and less severe than to non-EU27 markets

**Source of ND(L) in the EU27, 2016-2020 (bn cigarettes)**

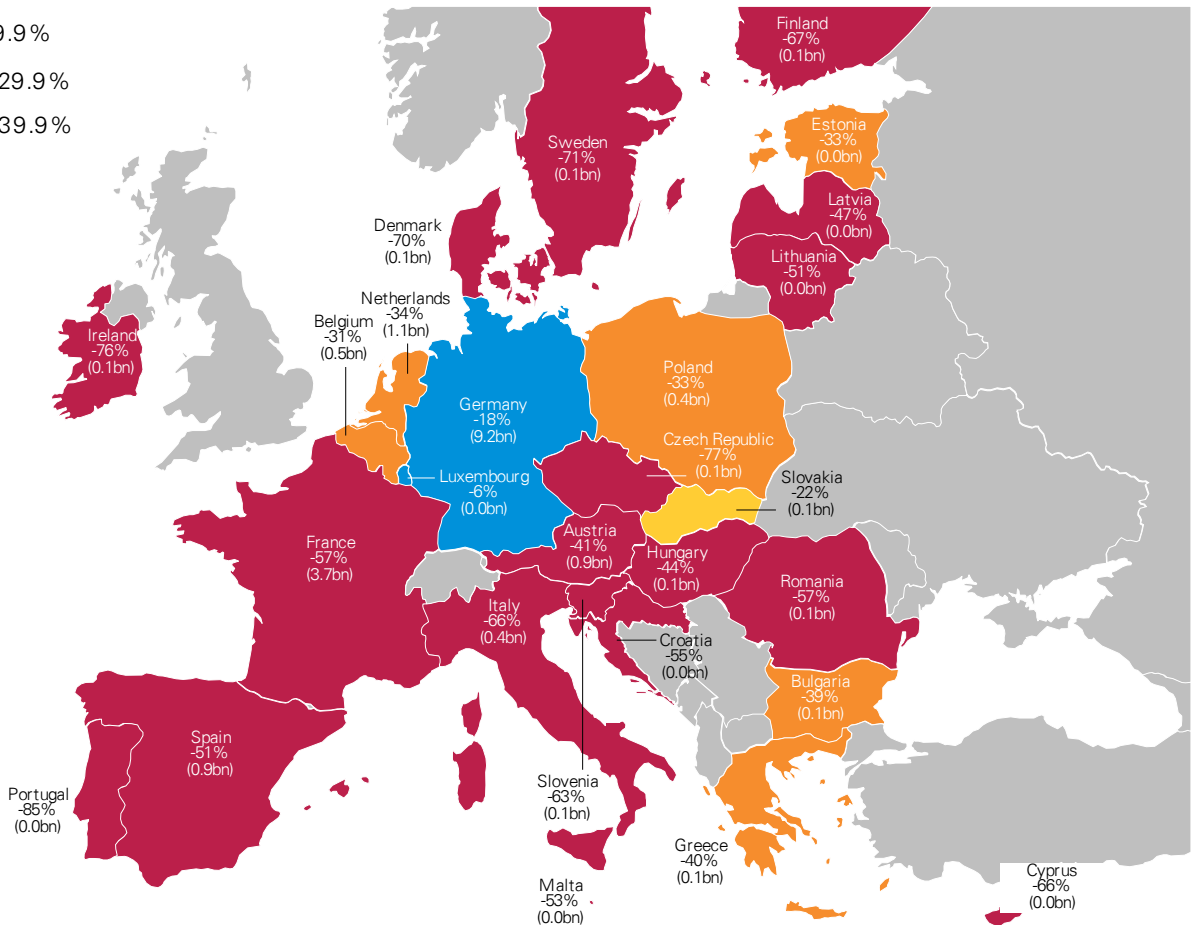
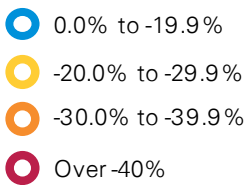


Source:(1) EU27 level results are an aggregation of the EU Flows Calculation results for the 27 EU member states, a detailed methodology and list of sources for each market is available in the methodology section of this report

# Non-domestic legal trend (ND(L)) (2)

- Although overall ND(L) volume declined across the EU27, rates varied across the member states
- Portugal showed the highest decline at 85%
- Germany and Luxembourg showed lower rates of decline, 18% and 6% respectively, indicating that in some markets demand for cross-border purchases remained strong

## Rate of ND(L) change, 2020 (%)

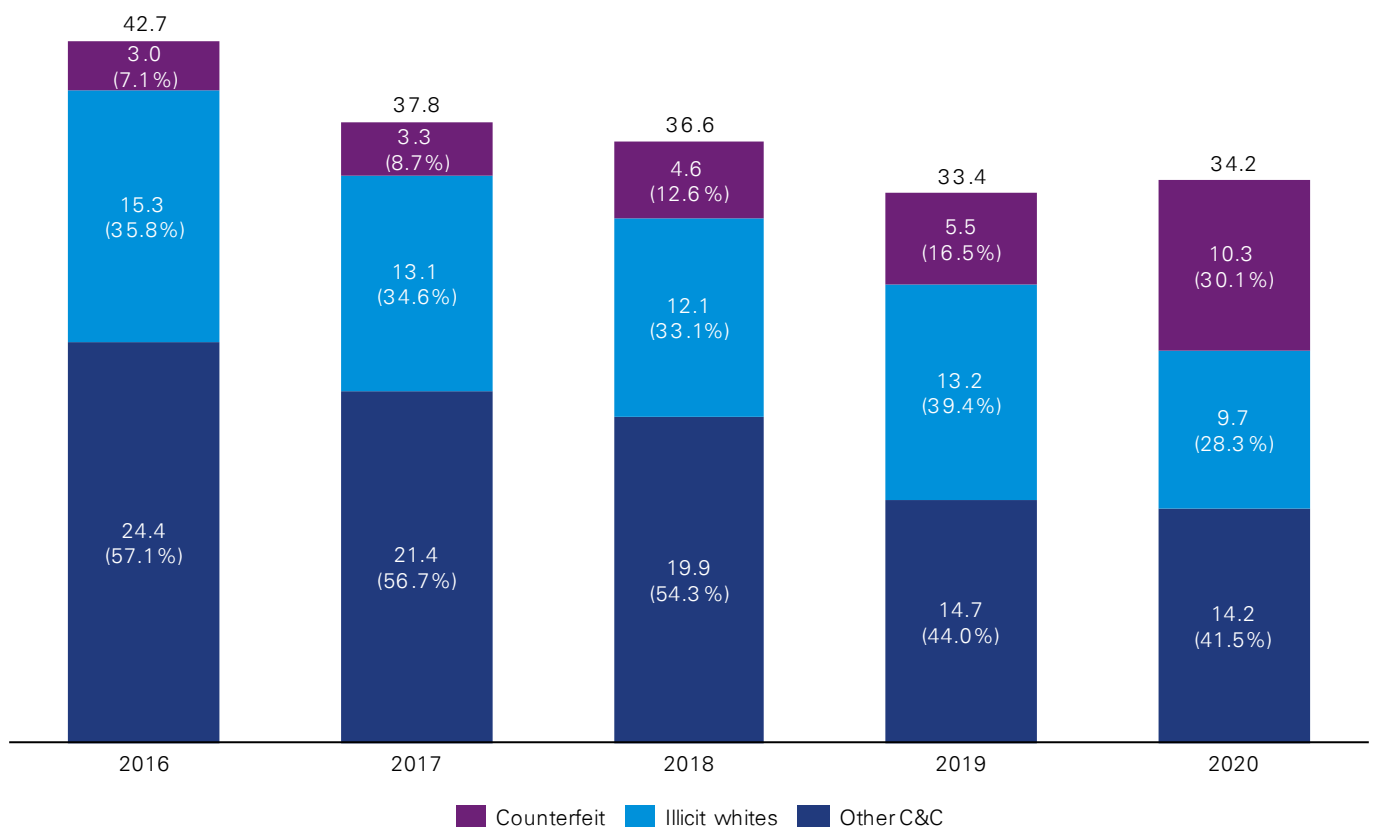


Source:(1) EU27 level results are an aggregation of the EU Flows Calculation results for the 27 EU member states, a detailed methodology and list of sources for each market is available in the methodology section of this report

# C&C trend by type

- C&C increased by 0.8bn or 2% in 2020, with increased Counterfeit partially offset by a decrease in Illicit Whites and Other C&C
- Counterfeit grew by 4.8bn, or almost 87%
- Illicit Whites volume decreased by 3.5bn in 2020 to the lowest level observed in the reporting period. The largest declines were experienced in Romania (1.0bn), Greece (0.5bn) and France (0.4bn)
- Other C&C flows declined by 0.5bn in 2020, continuing its long term declining trend

**C&C trend by type in the EU27, 2016-2020 (bn cigarettes)**



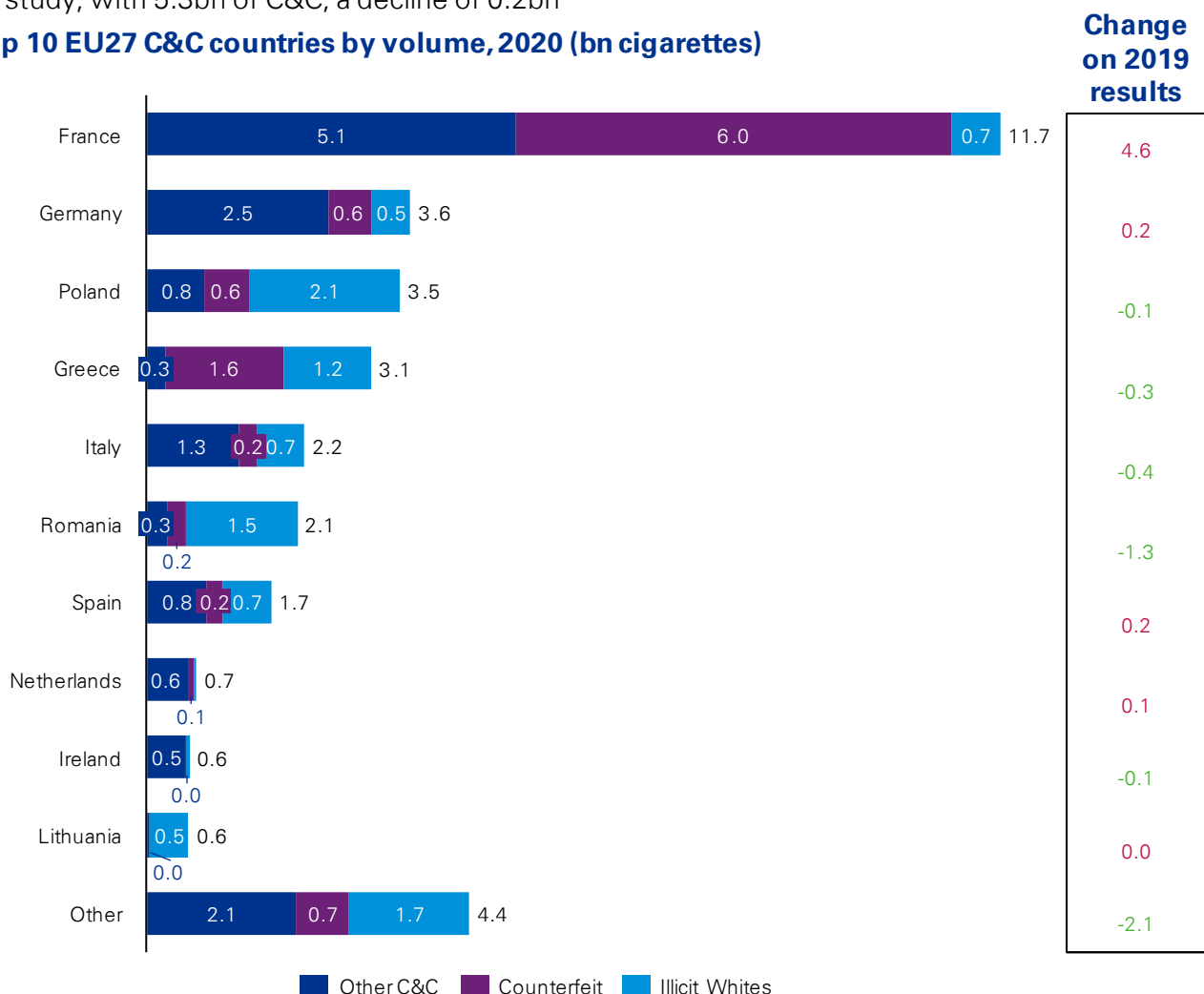
Source:(1) EU27 level results are an aggregation of the EU Flows Calculation results for the 27 EU member states, a detailed methodology and list of sources for each market is available in the methodology section of this report



# C&C key markets

- Increased EU27 illicit cigarette consumption in was primarily driven by an increase in C&C in France
- France continues to remain the largest market for illicit cigarettes in the EU27, with an increase of 4.6bn cigarettes in 2020. This was driven by an unprecedented 5.1bn or 609% increase in Counterfeit, partly offset by a decrease in Illicit Whites and Other C&C
  - To put this change in context if France Counterfeit had remained at the same level as 2019, overall EU27 C&C would have declined by 4.4bn cigarettes in 2020
- Germany C&C volumes increased by 0.2bn in 2020 to overtake Poland to become the second largest market of illicit cigarettes in the EU27
- Romania saw the largest decline in C&C volume in 2020 amongst all countries of study, declining by 1.3bn cigarettes
- The UK, which left the EU in 2020, was the second largest illicit cigarette consumption market in this study, with 5.3bn of C&C, a decline of 0.2bn

## Top 10 EU27 C&C countries by volume, 2020 (bn cigarettes)

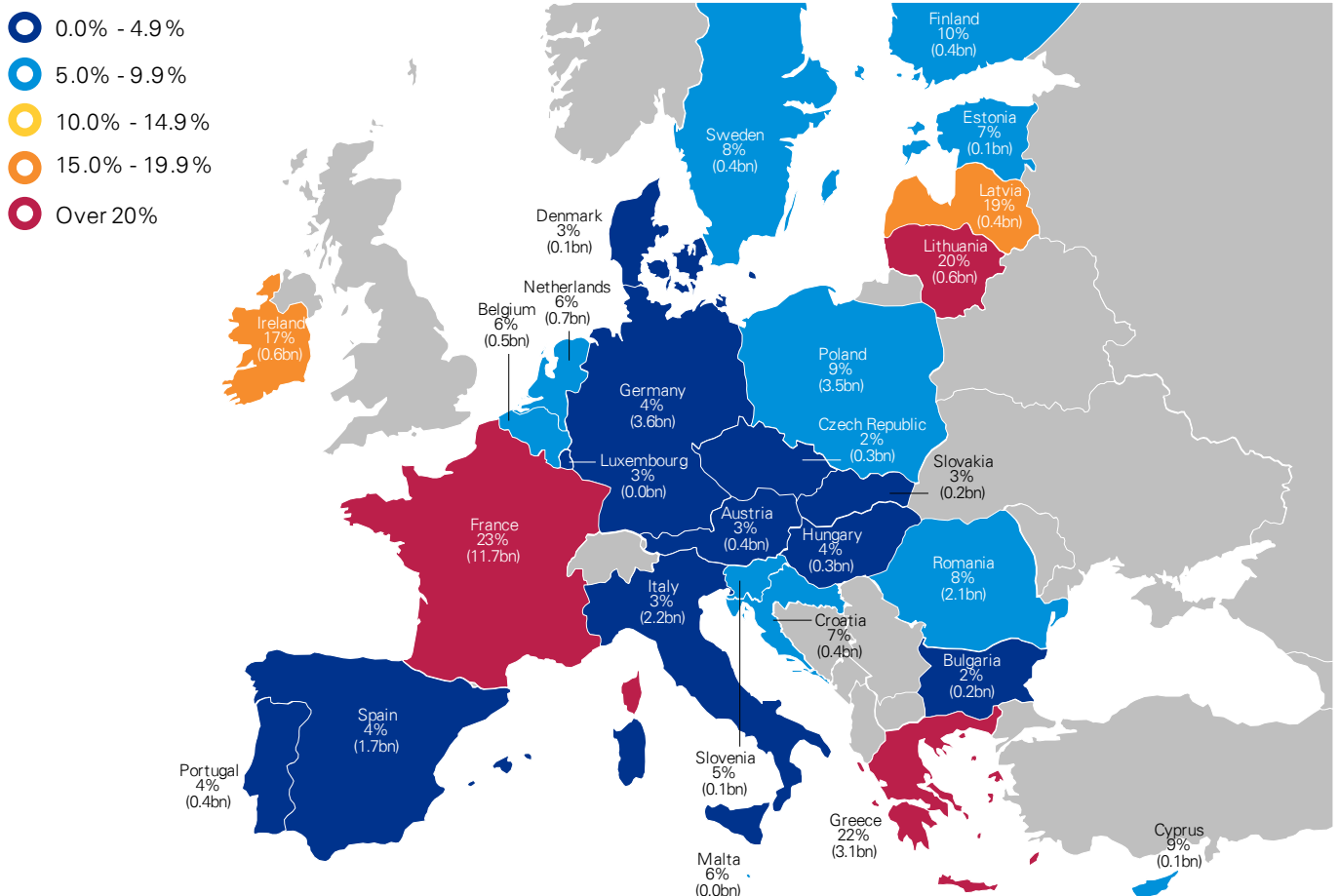


Source: (1) EU27 level results are an aggregation of the EU Flows Calculation results for the 27 EU member states, a detailed methodology and list of sources for each market is available in the methodology section of this report

# C&C consumption trend (1)

- The highest illicit consumption shares in the EU27 were in France (23.1%), Greece (22.4%) and Lithuania (20.2%)
- The highest increase was noted in France, with a change of 9.4ppt of total consumption (representing 4.6bn cigarettes) driven by increased Counterfeit consumption partly offset by a decrease in illicit Algerian Other C&C inflows

## C&C as a percentage of total consumption, 2020 (bn cigarettes)

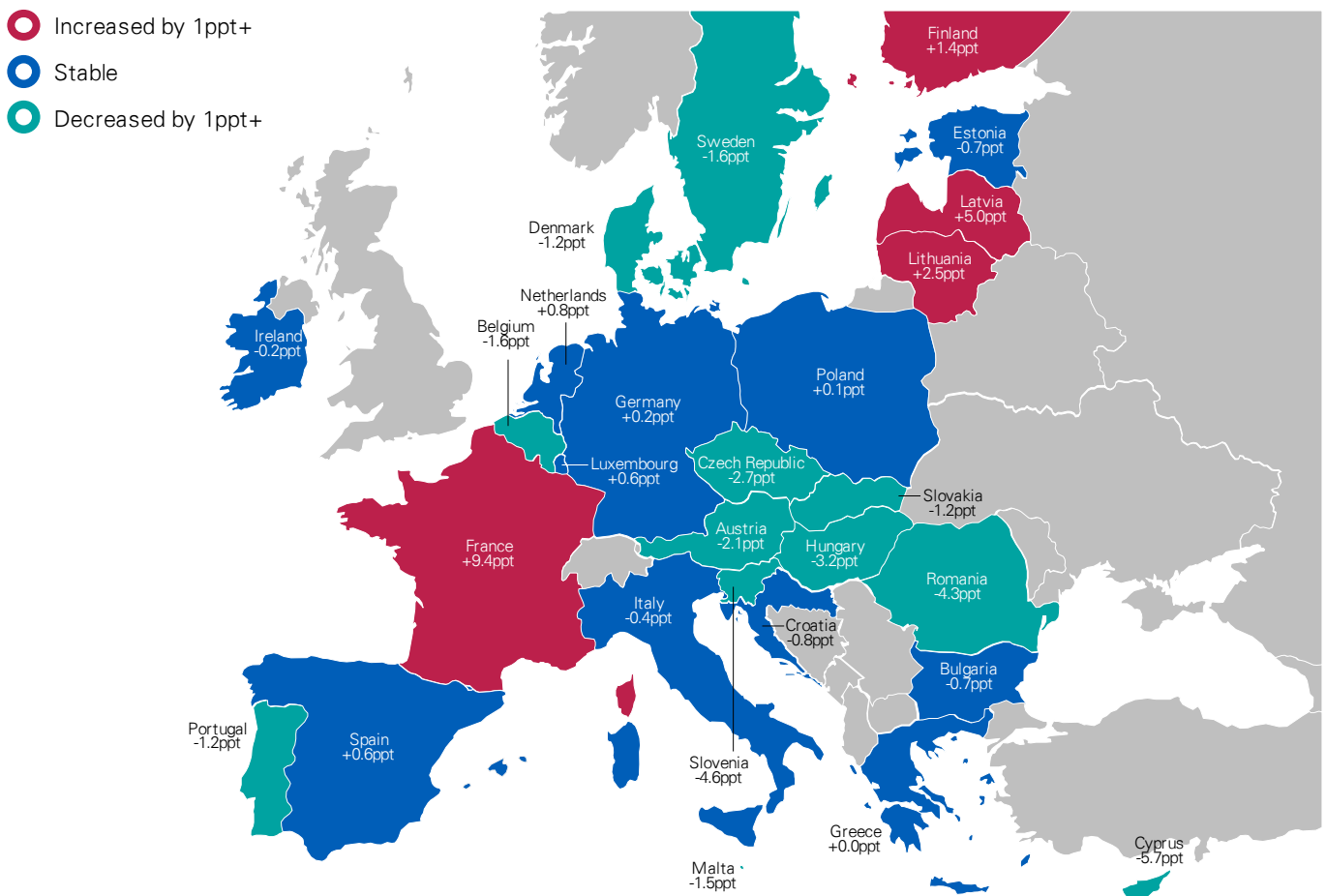


Source:(1) EU27 level results are an aggregation of the EU Flows Calculation results for the 27 EU member states, a detailed methodology and list of sources for each market is available in the methodology section of this report

# C&C consumption trend (2)

- Most of the major cigarette consumption markets saw declining or stable C&C incidence in 2020, with the exception of France
- Cumulative C&C for the EU27 countries increased by 0.8bn or 0.5ppt
- France and Latvia had the largest increase in share of C&C, with C&C share increasing by 9.4ppt in France and 5.0ppt in Latvia
- Only 4 countries: Finland, France, Latvia and Lithuania, saw an increase in C&C share by more than 1ppt
- The C&C share in Cyprus and Slovenia declined by 5.7ppt and 4.6ppt, the largest declines in the EU27
- 11 countries remained largely stable, with marginal changes over 2019 C&C incidence

## Change in share of C&C consumption vs prior year, 2020

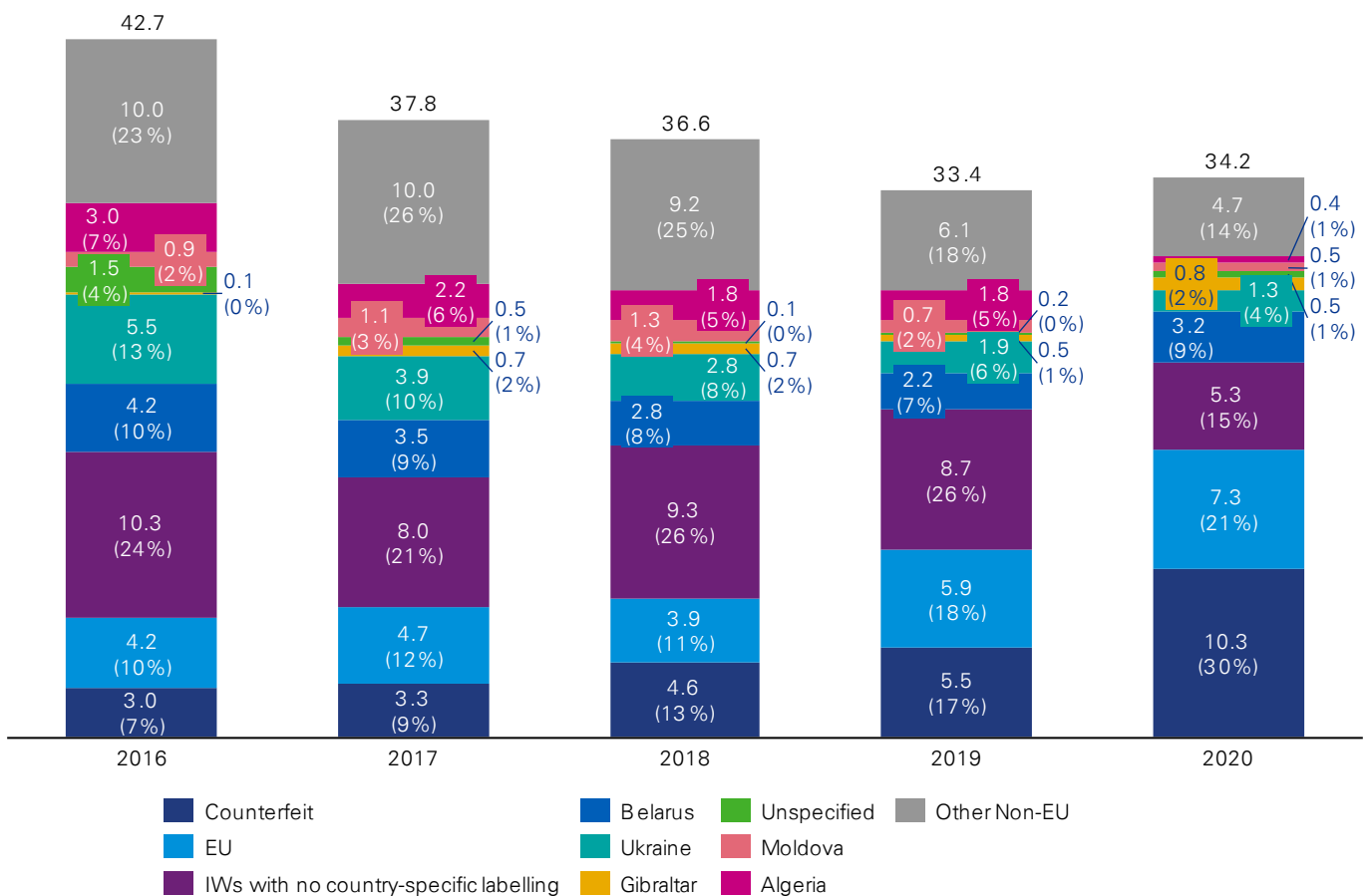


Source:(1) EU27 level results are an aggregation of the EU Flows Calculation results for the 27 EU member states, a detailed methodology and list of sources for each market is available in the methodology section of this report

# C&C source countries

- 30% of illicit consumption in the EU27 in 2020 was driven by Counterfeit
- Illicit whites with no country-specific labelling experienced a relatively large decline of 3.4bn cigarettes in 2020
- Illicit cigarettes that can be identified as flows from one EU27 country to another increased by 1.5bn, accounting for 21% of C&C flows in 2020 and surpassing the share of IWs with no country-specific labelling for the first time
- Ukraine continued its declining trend noted since 2016, while Belarus flows increased by 0.9bn in 2020, reversing the historical declining trend
- Interviews with law enforcement, and KPMG’s own research into this topic as part of our 2019 Stella report indicated that a large proportion of Illicit Whites with no country-specific labelling and Counterfeit may be manufactured in illegal factories within the EU27<sup>(2)(3)</sup>

## Sources of C&C in the EU27, 2016-2020 (bn cigarettes)

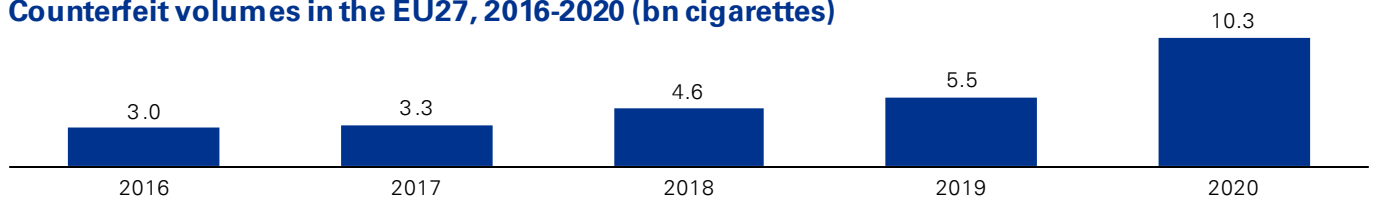


Source:(1) EU27 level results are an aggregation of the EU Flows Calculation results for the 27 EU member states, a detailed methodology and list of sources for each market is available in the methodology section of this report, (2) Law enforcement interviews, (3) KPMG, Project Stella, Illicit cigarette manufacturing in the EU, Nov 2019

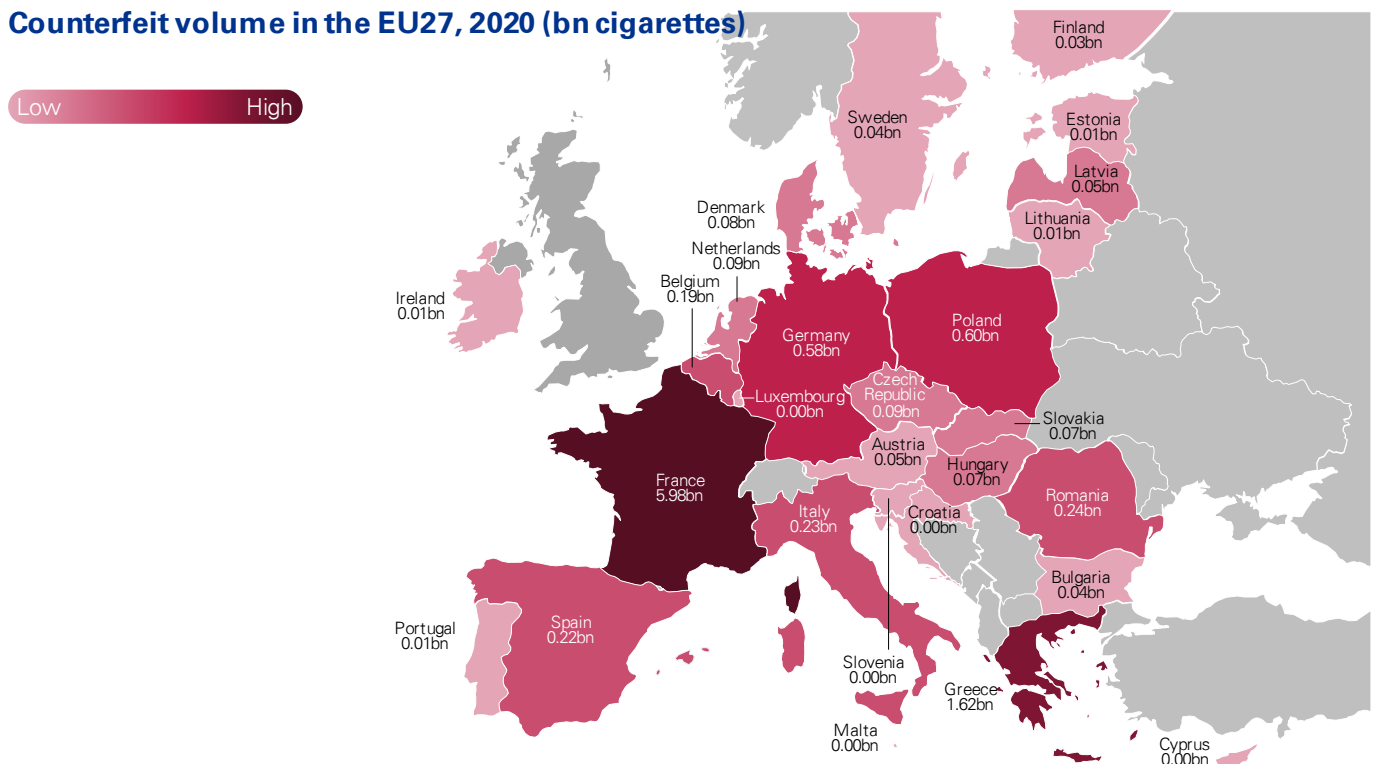
# Focus on Counterfeit (1)

- Counterfeit volumes experienced a large increase in 2020, by 4.8bn cigarettes or 87%, continuing a trend seen since 2016
- Counterfeit consumption was highest in France (5.98bn) and Greece (1.62bn)
- The largest year-on-year increase in Counterfeit consumption was noted in France (5.13bn or 609%)
- In France, Germany and Poland, the majority of the Counterfeit cigarettes were of Duty Free variants (both EU Duty Free and world wide Duty Free)
- In Greece, Counterfeit cigarettes were predominantly of domestic variants (74%) and variants with unidentifiable origin labelling (15%)
- Interviews with law enforcement<sup>(1)</sup> indicate that increasing volumes of the Counterfeit detected in this study may be manufactured in illegal factories within the EU27. Furthermore, as only participating manufacturers forensically examine packs collected in the empty pack survey to identify Counterfeit, actual Counterfeit volumes in the EU27 may be even higher than that shown in this report

## Counterfeit volumes in the EU27, 2016-2020 (bn cigarettes)



## Counterfeit volume in the EU27, 2020 (bn cigarettes)

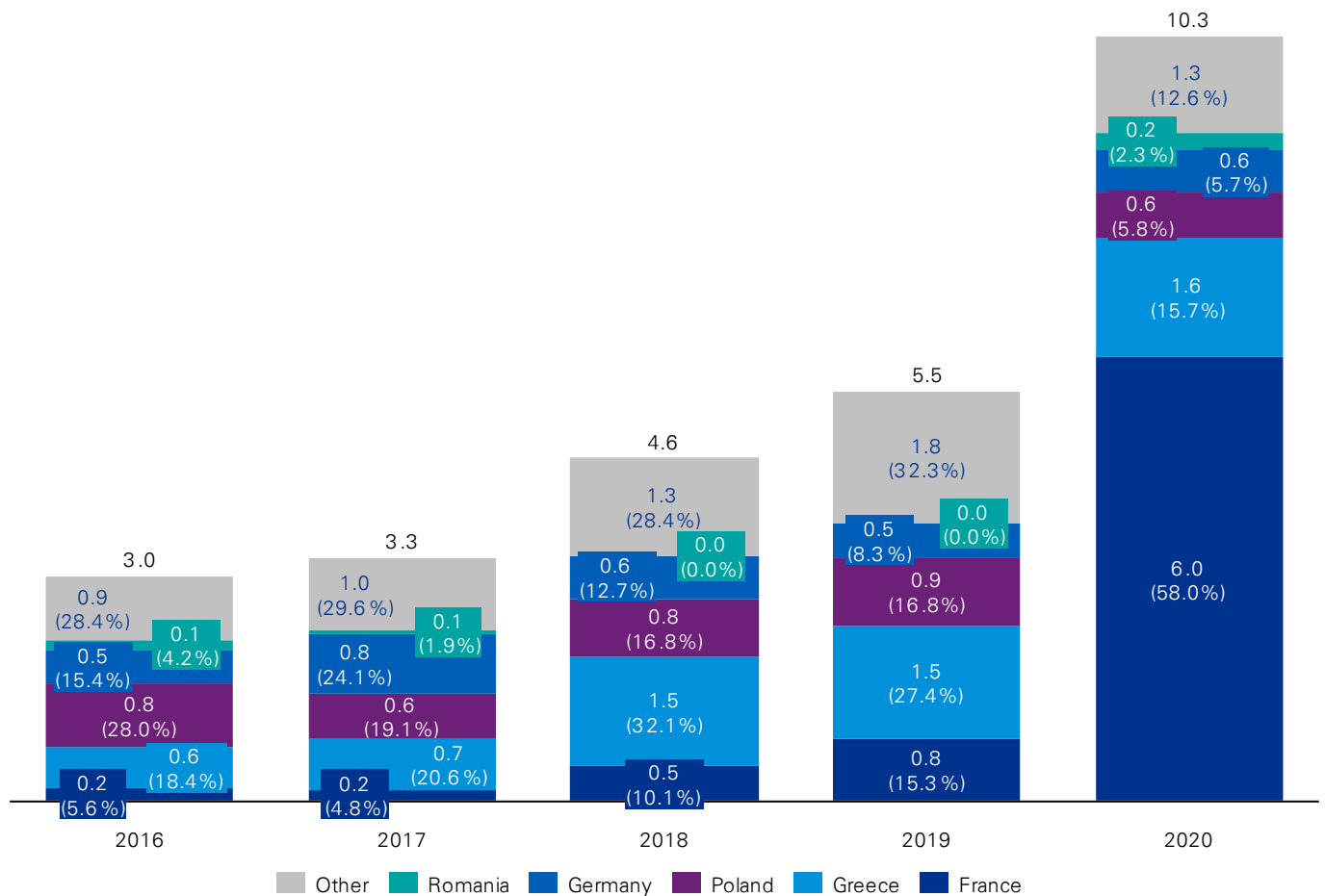


Source:(1) Law enforcement interviews, (2) EU27 level results are an aggregation of the EU Flows Calculation results for the 27 EU member states, a detailed methodology and list of sources for each market is available in the methodology section of this report

# Focus on Counterfeit (2)

- France accounted for 58.0% of EU27 Counterfeit in 2020, up from 15.3% in 2019
- Poland saw the largest decline in Counterfeit, with a 0.3bn decrease to 0.6bn in 2020
- Across the remaining major inflow countries volumes remained relatively stable

**Counterfeit volumes in the EU27, 2016-2020 (bn cigarettes)**

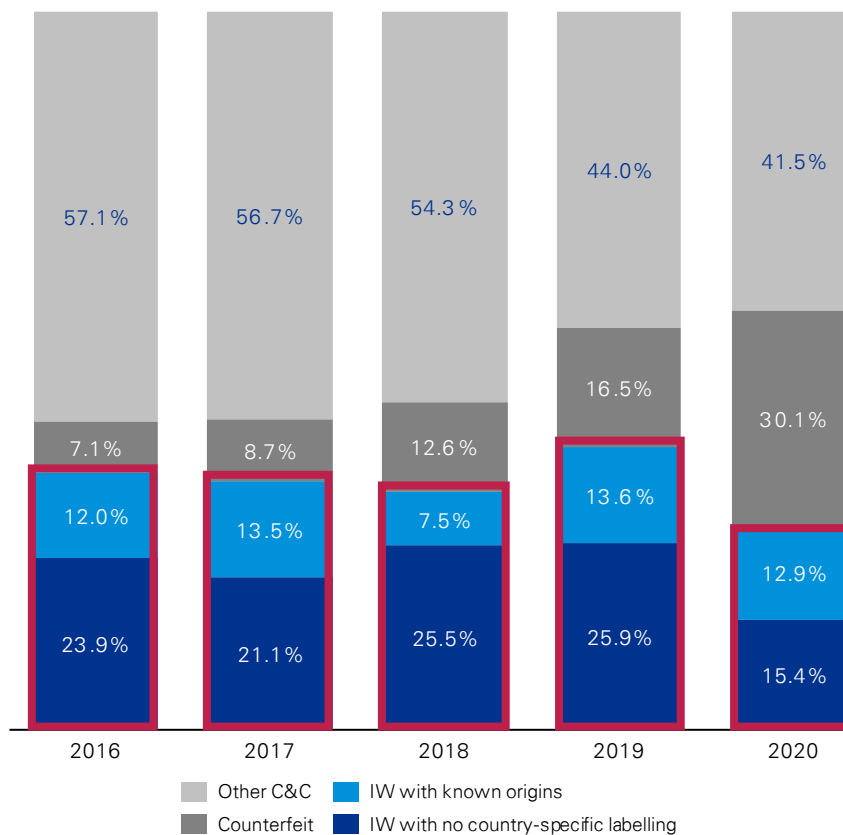


Source: (1) EU27 level results are an aggregation of the EU Flows Calculation results for the 27 EU member states, a detailed methodology and list of sources for each market is available in the methodology section of this report

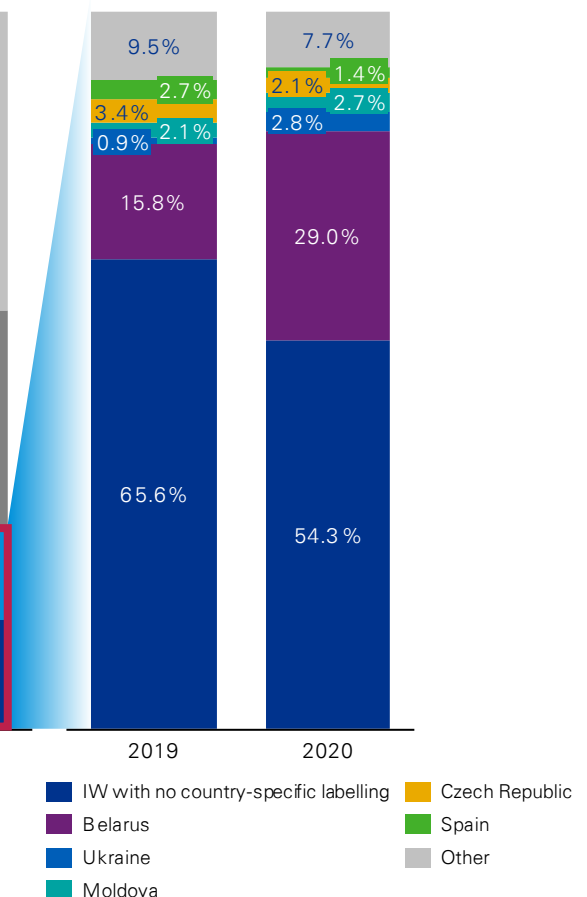
# Focus on Illicit Whites (1)

- Illicit Whites continue to be a major element of illicit consumption in the EU27, accounting for 28% of illicit consumption in 2020, albeit declining by 3.5bn on 2019 levels
- 54% of the 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<sup>(1)</sup> indicate that some of these Illicit Whites with no country-specific labelling are manufactured within the EU27. In the 2019 Stella report<sup>(2)</sup> KPMG estimated that EU manufacturing could account for up to half of 2018 EU Illicit White consumption
- 29.0% of Illicit Whites were from Belarus, an increase from 15.8% in 2019. A number of Illicit Whites brands that were classified as Illicit Whites with no country-specific labelling last year were labelled as coming from Belarus in 2020
  - Interviews with law enforcement<sup>(1)</sup> indicate this increase may be linked to growing brand loyalty from Illicit Whites consumers, and to seek to assure them the Illicit Whites brands are genuine

**Illicit Whites as a percentage of total C&C in the EU27, 2016-2020**



**Share of Illicit Whites by origin, 2019-20**



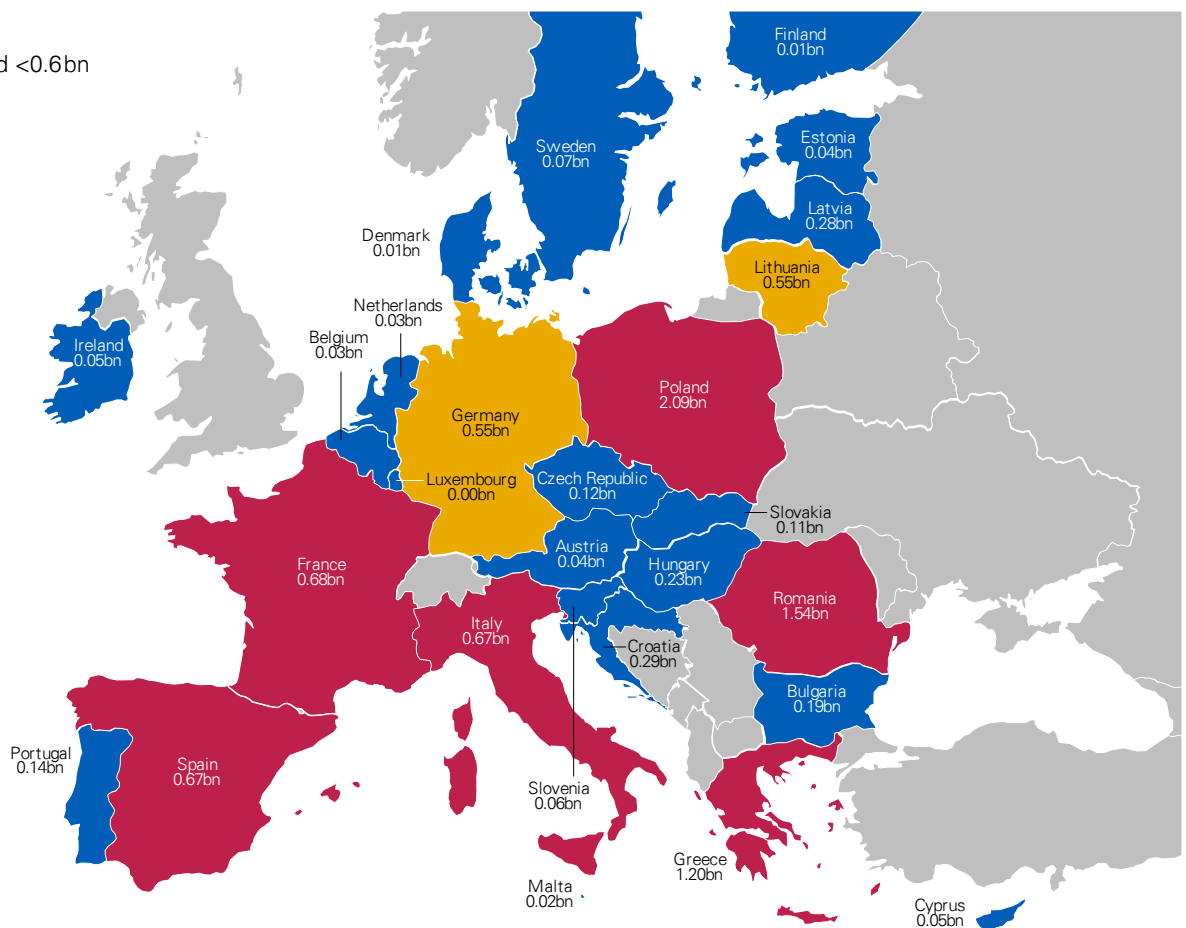
Source:(1) Law enforcement interviews, (2) KPMG, Project Stella, Illicit cigarette manufacturing in the EU27, Nov 2019, (3) EU27 level results are an aggregation of the EU Flows Calculation results for the 27 EU member states, a detailed methodology and list of sources for each market is available in the methodology section of this report

# Focus on Illicit Whites (2)

- The highest flows of Illicit Whites were measured in Poland (2.09bn), Romania (1.54bn) and Greece (1.20bn)
- The largest decrease in Illicit Whites consumption was observed in Romania (0.96bn), Greece (0.46bn) and France (0.40bn)
- The six largest Illicit Whites inflow countries in the EU27 (highlighted in red) account for 71 % of the total Illicit Whites flow in the EU27

## Illicit Whites consumption in the EU27, 2020 (bn cigarettes)

- $\geq 0.6$ bn
- $\geq 0.3$ bn and  $< 0.6$ bn
- $< 0.3$ bn



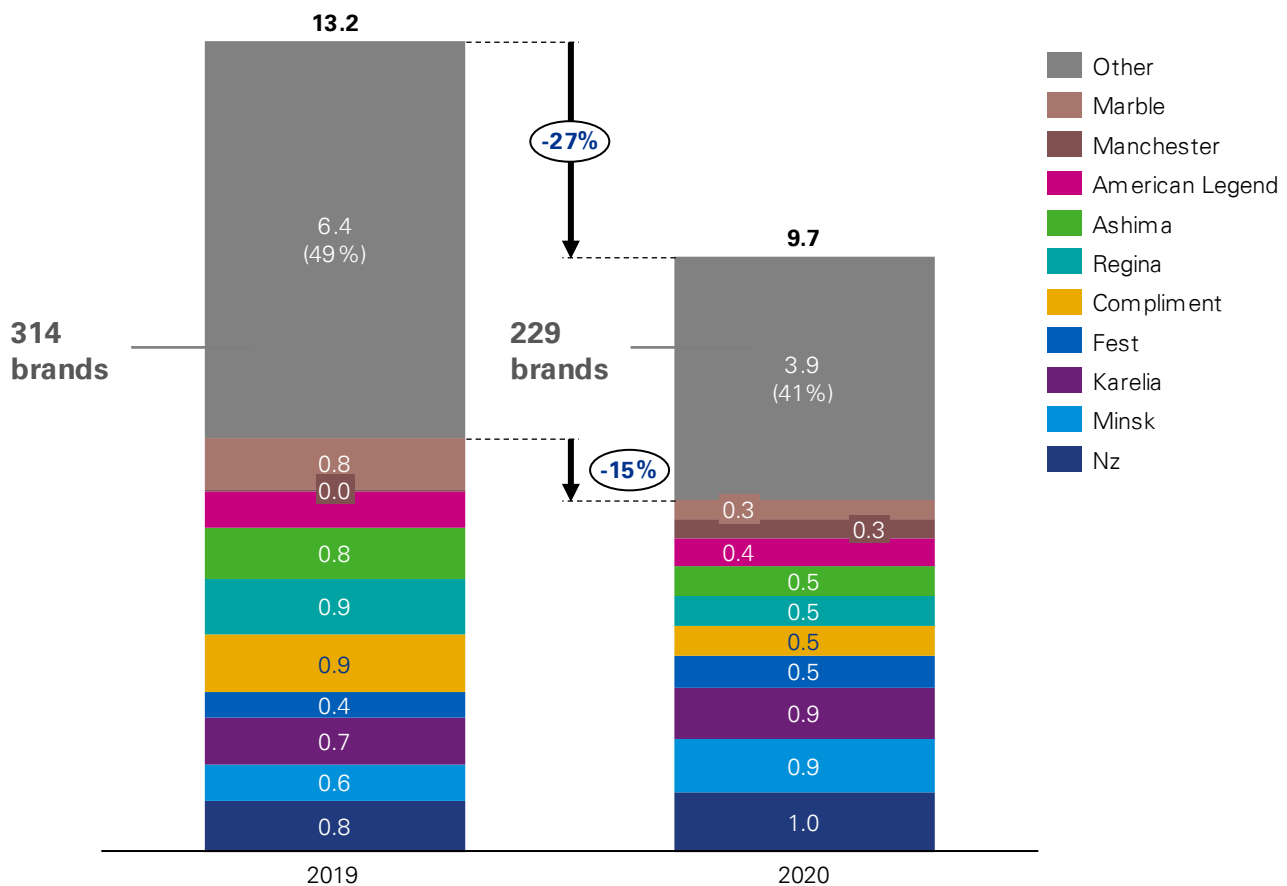
Source: (1) EU27 level results are an aggregation of the EU Flows Calculation results for the 27 EU member states, a detailed methodology and list of sources for each market is available in the methodology section of this report



# Focus on Illicit Whites (3)

- Illicit Whites consumption in EU27 declined by 27% in 2020
  - Approximately 70% of this decrease was due to smaller brands outside the top 10
  - 85 fewer Illicit Whites brands were identified than in 2019
- The top ten Illicit Whites brands accounted for 59% of the total in 2020 compared with 51% in 2019
- Interviews with EU27 law enforcement representatives indicated that Counterfeiting of Illicit Whites brands in illegal EU27 factories remained an issue in 2020. Since our analysis cannot identify whether illicit whites are Counterfeit or not, it is possible that we may be overstating the illicit whites issue and understating the Counterfeit issue, especially given the growth seen in Counterfeit

**Illicit Whites by brand in the EU27, 2019-2020 (bn cigarettes)**



Note: We cannot identify Counterfeit Illicit White volumes in this report as the manufacturers do not participate in the empty pack surveys and therefore do not analyse if the packs collected are genuine

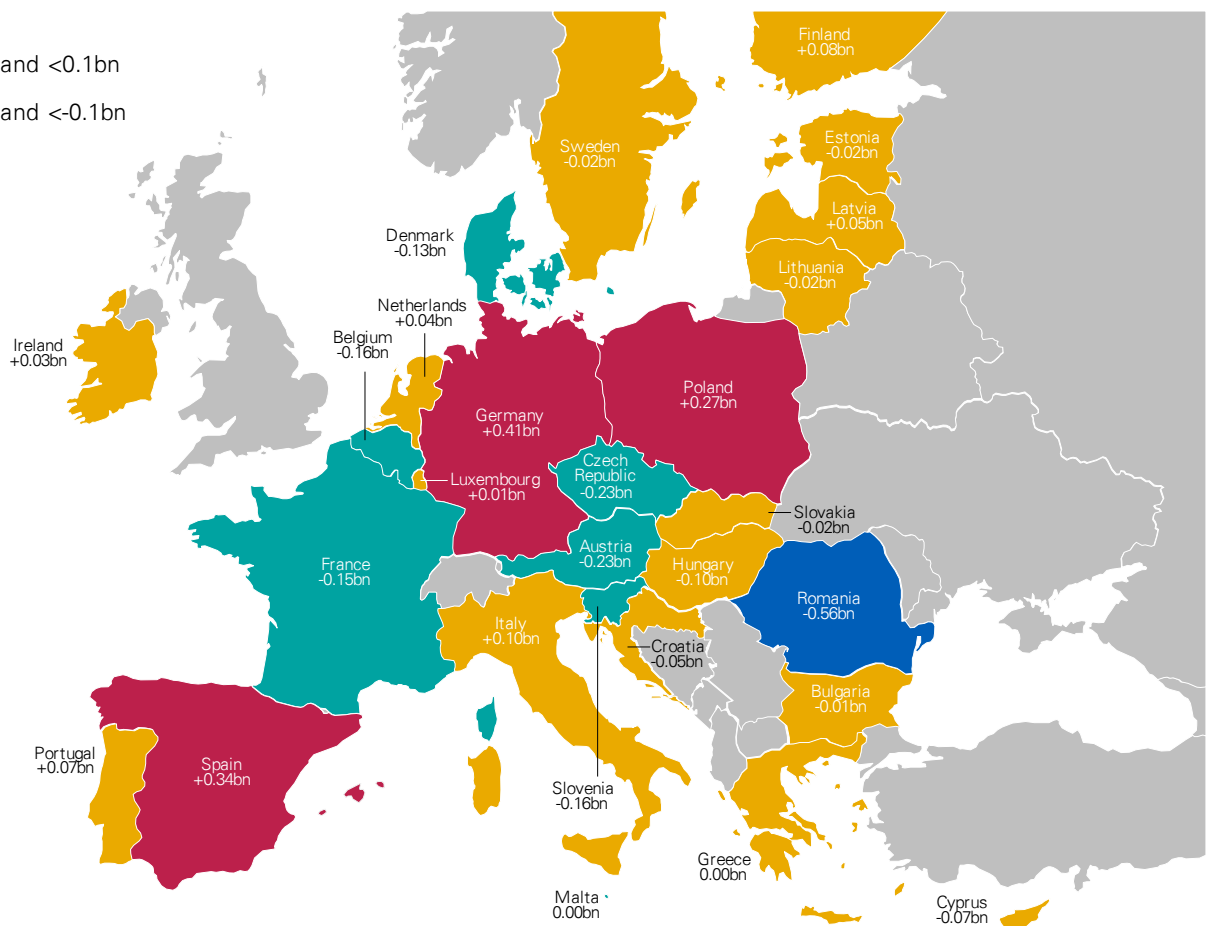
Source:(1) EU27 level results are an aggregation of the EU Flows Calculation results for the 27 EU member states, a detailed methodology and list of sources for each market is available in the methodology section of this report

# Focus on Other C&C

- Other C&C volumes declined by 0.5bn to 14.2bn cigarettes, the lowest level recorded in this study, and formed 42% of EU27 C&C consumption in 2020, down from 44% in 2019
- Increases in Germany (0.41bn), Spain (0.34bn) and Poland (0.27bn) were more than offset by decreases in Romania (0.56bn), Czech Republic (0.23bn), Austria (0.23bn), Slovenia (0.16bn), Belgium (0.16bn), France (0.15bn), Denmark (0.13bn) and Hungary (0.10bn)
- Other C&C declines from non-EU27 source markets were the largest driver of overall EU27 volume decline, with decreasing flows from Algeria (1.4bn), Ukraine (0.7bn), The Republic of North Macedonia (0.3bn) and Serbia (0.3bn) partly offset by increased intra-EU27 flows from Spain (0.4bn), Belgium (0.4bn), Bulgaria (0.3bn), Poland (0.2bn), Romania (0.2bn), Slovenia (0.2bn) and the Czech Republic (0.2bn)

## Change in Other C&C consumption vs prior year, 2020 (bn cigarettes)

- $\geq 0.1$ bn
- $\geq -0.1$ bn and  $< 0.1$ bn
- $\geq -0.5$ bn and  $< -0.1$ bn
- $< -0.5$ bn



Source:(1) Law enforcement interviews (2) EU27 level results are an aggregation of the EU Flows Calculation results for the 27 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

13.1bn

Cigarettes consumed



-0.34bn on 2019

0.4bn

C&C cigarettes consumed



-0.29bn on 2019

3.4%

Of total consumption was C&C



-2.09%pts on 2019

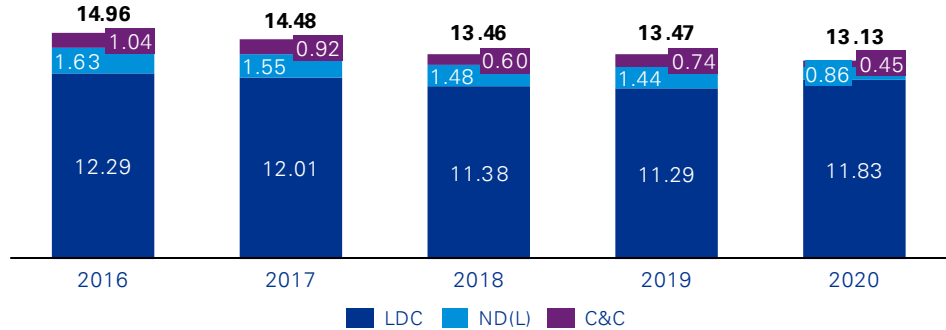
€88m

Estimated total tax revenue lost from C&C



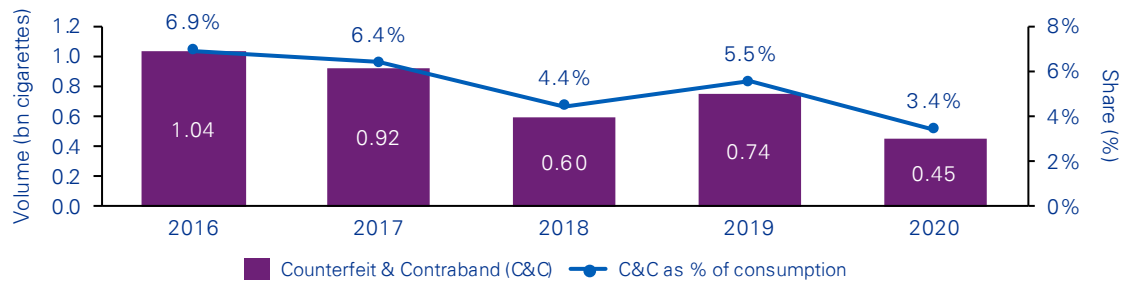
-51m on 2019

Total consumption – 2016-2020 (bn cigarettes)

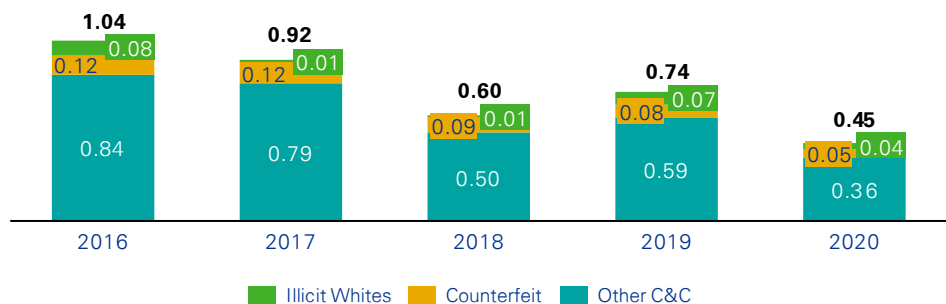


- C&C decreased to 3.4% of the total consumption, or 0.45bn cigarettes
- Illicit Whites, Counterfeit and other C&C volumes all declined in 2020

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2016-2020



Breakdown of C&C consumption by type – 2016-2020 (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 2020. For detailed methodology and a list of sources, refer to the methodology section © 2021 KPMG LLP, a UK limited liability partnership and a member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative ("KPMG International"), a Swiss entity. All rights reserved.

# Manufactured cigarette consumption, inflows and outflows

## Total manufactured cigarette consumption – 2016-2020

Total Austria Consumption						
Billion cigarettes	2016	2017	2018	2019	2020	2019-20 (%)
Legal Domestic Sales (LDS)	12.63	12.40	11.83	11.73	12.23	4%
Outflows	(0.33)	(0.40)	(0.45)	(0.44)	(0.40)	(9%)
Legal Domestic Consumption (LDC)	12.29	12.01	11.38	11.29	11.83	5%
Non-Domestic Legal (ND(L))	1.63	1.55	1.48	1.44	0.86	(41%)
Counterfeit and Contraband (C&C)	1.04	0.92	0.60	0.74	0.45	(39%)
Total Non-Domestic	2.67	2.47	2.08	2.18	1.31	(40%)
<b>Total Consumption</b>	<b>14.96</b>	<b>14.48</b>	<b>13.46</b>	<b>13.47</b>	<b>13.13</b>	<b>(3%)</b>

- Total cigarette consumption declined by 3% in 2020, with increased LDS offset by a decline in non-domestic consumption
- The neighbouring lower-priced markets of Czech Republic, Slovakia, Hungary and Slovenia remain the main sources of non-domestic inflows, all of which declined
- Germany remains the principal destination for cigarettes from Austria, accounting for 67% of the outflows in 2020

## Total inflows by country of origin – 2016-2020

Inflows to Austria					
Billion cigarettes	2016	2017	2018	2019	2020
Czech Republic	0.50	0.72	0.42	0.46	0.30
Slovakia	0.13	0.17	0.18	0.28	0.15
Hungary	0.40	0.31	0.24	0.23	0.14
Slovenia	0.37	0.34	0.39	0.20	0.11
Duty Free Labelled	0.16	0.10	0.12	0.12	0.08
Other	1.10	0.83	0.74	0.88	0.52
<b>Total Inflows</b>	<b>2.67</b>	<b>2.47</b>	<b>2.08</b>	<b>2.18</b>	<b>1.31</b>

## Total outflows by country of origin – 2016-2020

Outflows from Austria					
Billion cigarettes	2016	2017	2018	2019	2020
Germany	(0.18)	(0.21)	(0.20)	(0.25)	(0.27)
Switzerland	(0.04)	(0.05)	(0.05)	(0.03)	(0.05)
France	(0.02)	(0.01)	(0.02)	(0.01)	(0.02)
Other	(0.09)	(0.12)	(0.18)	(0.15)	(0.07)
<b>Total Outflows</b>	<b>(0.33)</b>	<b>(0.40)</b>	<b>(0.45)</b>	<b>(0.44)</b>	<b>(0.40)</b>

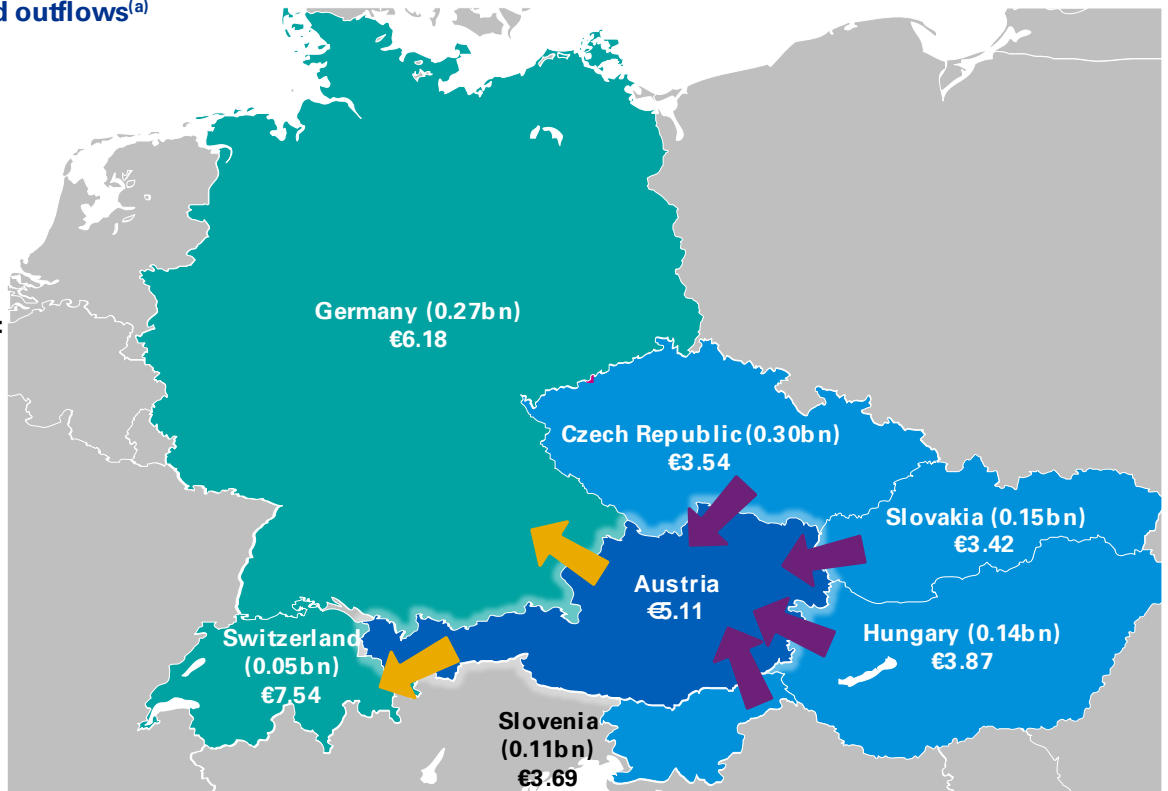
Note: Inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows. Remaining flows are included in the 'Other' category  
 Source: KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section

# Key flows and C&C consumption patterns

## Key inflows and outflows<sup>(a)</sup>

- Austria
- Source
- Destination
- Inflow
- Outflow

**Label description:**  
Country (Inflow/  
Outflow Volume)  
WAP



## C&C % by region<sup>(b)(c)</sup>



Note: (a) For countries with both inflows and outflows, only the larger of the two flows have been shown (b) C&C scale is relative to this market and is not comparable with other markets in the study, (c) Data not available for regions in grey

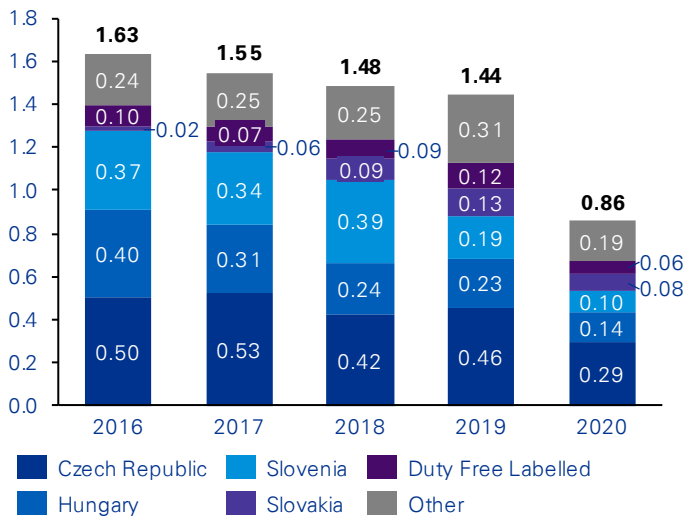
Source: (1) KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section



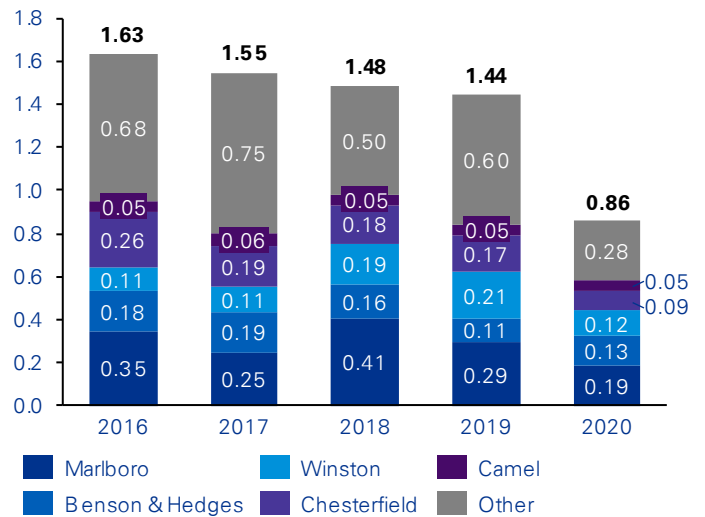
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# ND(L) and C&C flows

**ND(L) by country of origin – 2016-2020 (bn cigarettes)**

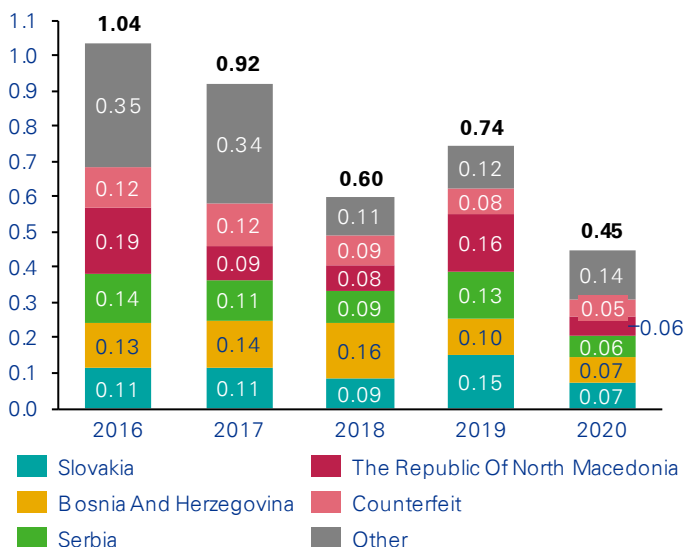


**ND(L) by brand – 2016-2020 (bn cigarettes)**

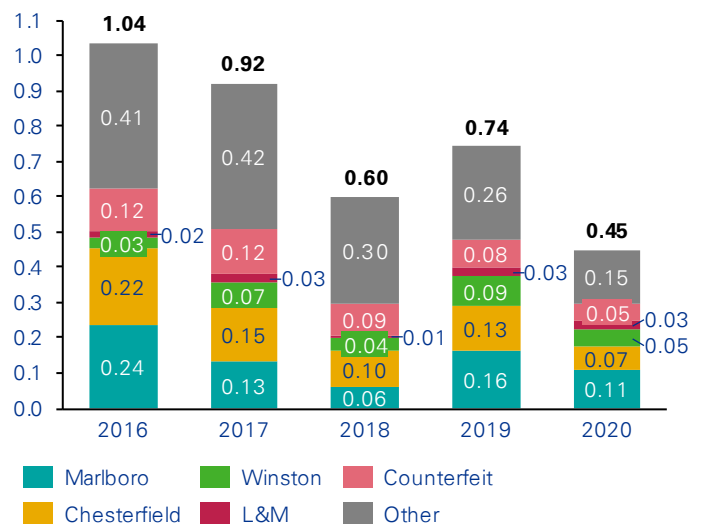


- Legal inflows (ND(L)) declined by 41% against a backdrop of COVID-19 related border closures and travel restrictions in 2020
- Flows from the Czech Republic and Slovenia have been considered predominately legal, given the proximity of these markets and large numbers of cross-border workers and shoppers
- C&C declines were mainly driven by reduced inflows from Slovakia, The Republic of North Macedonia and Serbia
- The highest regional C&C was recorded in the Wien and Salzburg regions

**C&C by country of origin – 2016-2020 (bn cigarettes)**



**C&C by brand – 2016-2020 (bn cigarettes)**



Note: (a) C&C breakdown chart only includes counterfeit volumes related to brands of manufacturers who participate in the empty pack/yellow bag surveys  
Source: (1) KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section

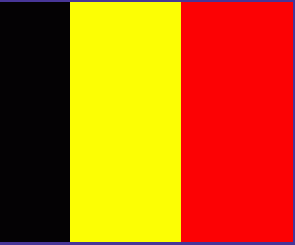




**KPMG**

# Belgium





# C&C cigarette consumption and total consumption

8.8bn

Cigarettes consumed



+0.11bn on 2019

0.5bn

C&C cigarettes consumed



-0.13bn on 2019

5.8%

Of total consumption was C&C



-1.61%pts on 2019

€126m

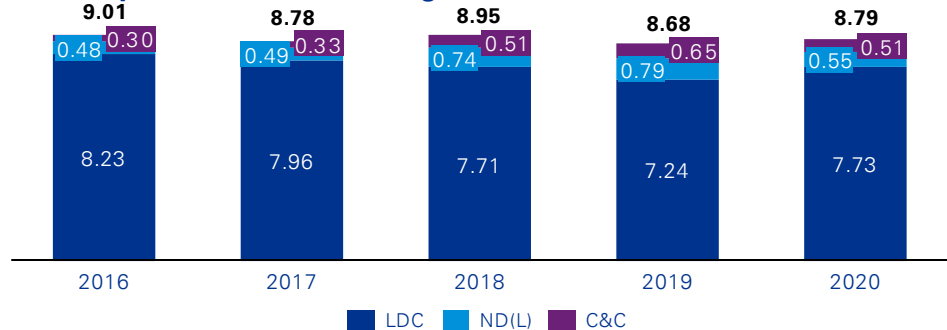
Estimated total tax revenue lost from C&C



-€30m on 2019

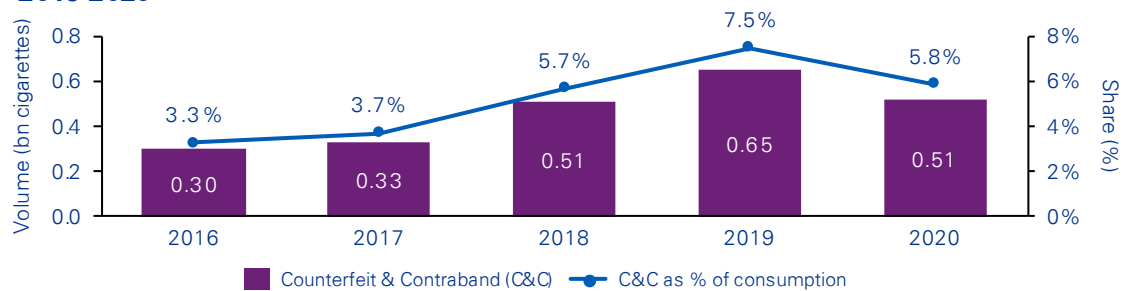


Total consumption – 2016-2020 (bn cigarettes)

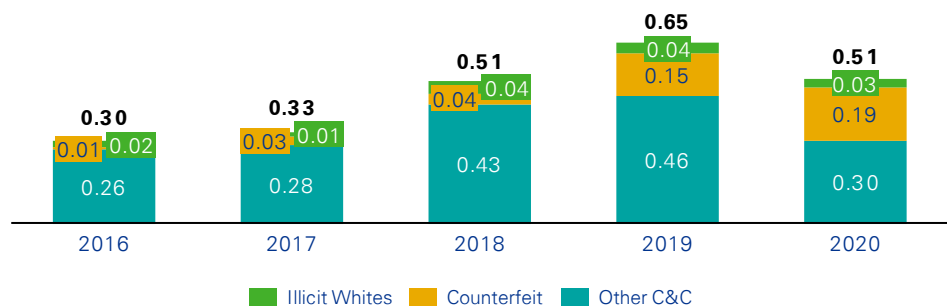


- C&C decreased to 0.51bn sticks, representing 5.8% of total consumption and similar to levels seen in 2018
- A reduction in Other C&C was the largest element of C&C decline, reducing by 35% to 0.3bn cigarettes
- This was partly offset by Counterfeit volumes, which continued to increase, growing by 25% to 0.19bn sticks

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2016-2020



Breakdown of C&C consumption by type – 2016-2020 (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 2020. For detailed methodology and a list of sources, refer to the methodology section © 2021 KPMG LLP, a UK limited liability partnership and a member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative ("KPMG International"), a Swiss entity. All rights reserved.

# Manufactured cigarette consumption, inflows and outflows

## Total manufactured cigarette consumption – 2016-2020

Total Belgium Consumption						
Billion cigarettes	2016	2017	2018	2019	2020	2019-20 (%)
Legal Domestic Sales (LDS)	10.18	9.51	9.43	9.47	9.23	(3%)
Outflows	(1.94)	(1.55)	(1.72)	(2.23)	(1.50)	(33%)
Legal Domestic Consumption (LDC)	8.23	7.96	7.71	7.24	7.73	7%
Non-Domestic Legal (ND(L))	0.48	0.49	0.74	0.79	0.55	(31%)
Counterfeit and Contraband (C&C)	0.30	0.33	0.51	0.65	0.51	(21%)
Total Non-Domestic	0.77	0.82	1.24	1.44	1.06	(26%)
<b>Total Consumption</b>	<b>9.00</b>	<b>8.78</b>	<b>8.95</b>	<b>8.68</b>	<b>8.79</b>	<b>1%</b>

- Total consumption increased by 1% to 8.8bn, with increased legal domestic consumption partly offset by reduced inflows
- Outflows to France, Belgium's main outflow country, decreased by 44% against a backdrop of border closures in 2020 and the legal cigarette allowances for EU travellers visiting France reducing from 800 to 200 cigarettes (effective from 31<sup>st</sup> July 2020)
- Non-domestic inflows to Belgium declined by 26% in 2020, reversing the long term increasing trend. This decline was driven by reduced inflows from France and a number of other small markets, despite inflows increasing from Luxembourg and Bulgaria

## Total inflows by country of origin – 2016-2020

Inflows to Belgium					
Billion cigarettes	2016	2017	2018	2019	2020
Luxembourg	0.13	0.09	0.10	0.18	0.26
Bulgaria	0.03	0.06	0.09	0.20	0.21
Counterfeit	0.01	0.03	0.04	0.15	0.19
France	0.03	0.03	0.06	0.13	0.07
Netherlands	0.06	0.04	0.20	0.07	0.06
Other	0.51	0.56	0.76	0.70	0.27
<b>Total Inflows</b>	<b>0.77</b>	<b>0.82</b>	<b>1.24</b>	<b>1.44</b>	<b>1.06</b>

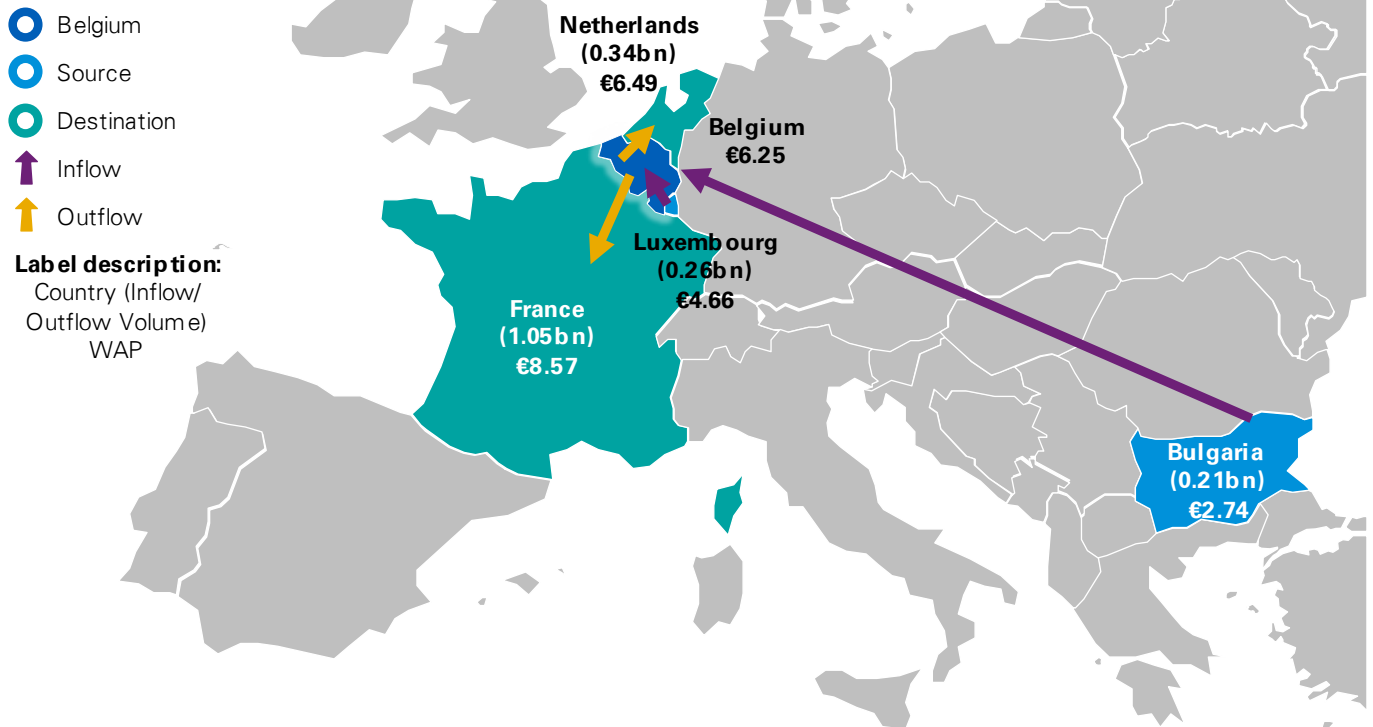
## Total outflows by country of origin – 2016-2020

Outflows from Belgium					
Billion cigarettes	2016	2017	2018	2019	2020
France	(1.47)	(1.28)	(1.42)	(1.89)	(1.05)
Netherlands	(0.37)	(0.15)	(0.18)	(0.21)	(0.34)
Other	(0.10)	(0.13)	(0.11)	(0.12)	(0.10)
<b>Total Outflows</b>	<b>(1.94)</b>	<b>(1.55)</b>	<b>(1.72)</b>	<b>(2.23)</b>	<b>(1.50)</b>

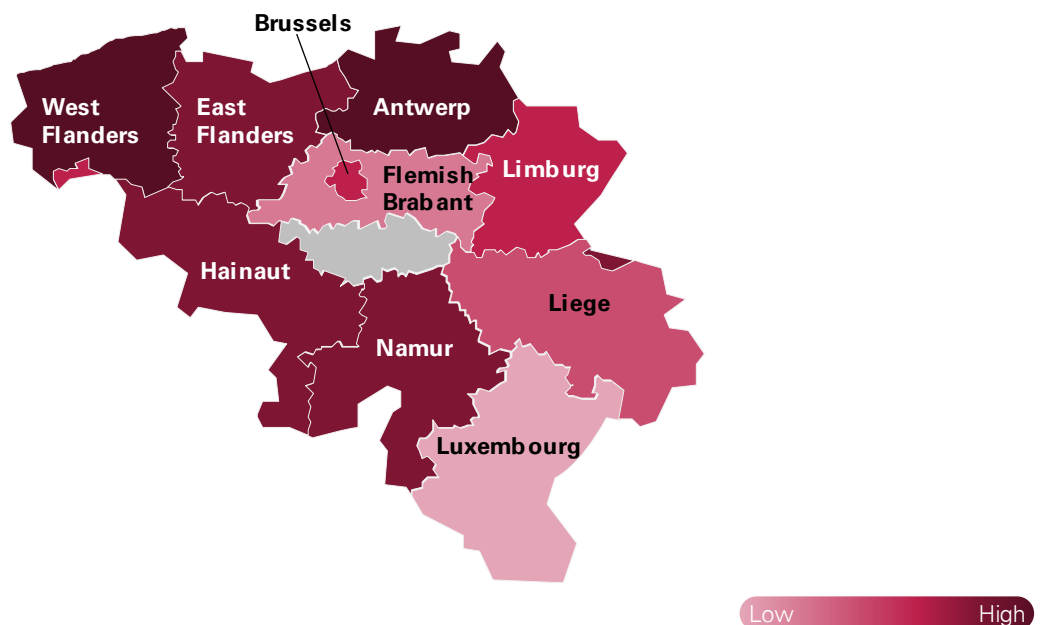
Note: Inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows. Remaining flows are included in the 'Other' category  
 Source: KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section

# Key flows and C&C consumption patterns

## Key inflows and outflows<sup>(a)</sup>



## C&C % by region<sup>(b)(c)</sup>

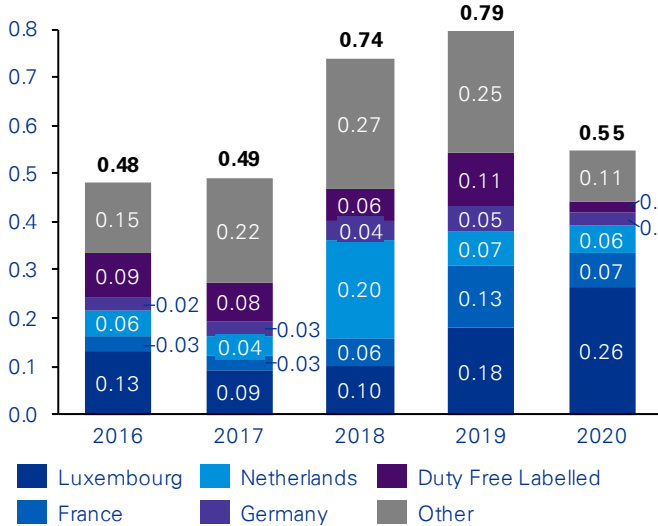


Note: (a) For countries with both inflows and outflows, only the larger of the two flows have been shown (b) C&C scale is relative to this market and is not comparable with other markets in the study, (c) Data not available for regions in grey

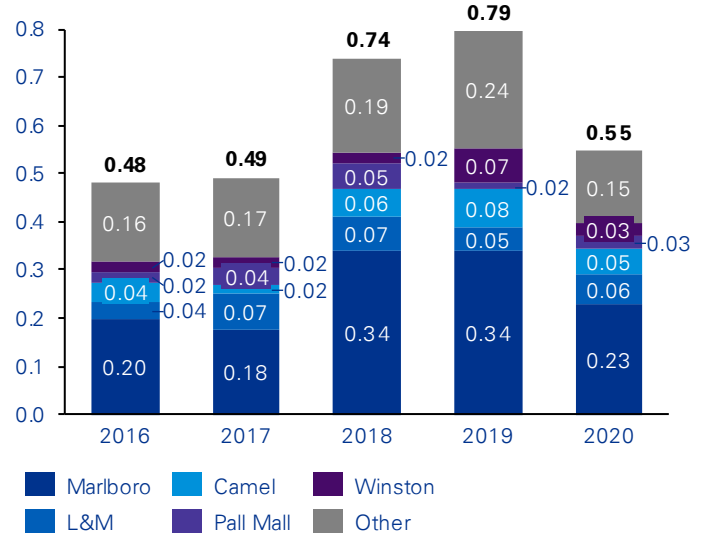
Source: (1) KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section

# ND(L) and C&C flows

**ND(L) by country of origin – 2016-2020 (bn cigarettes)**

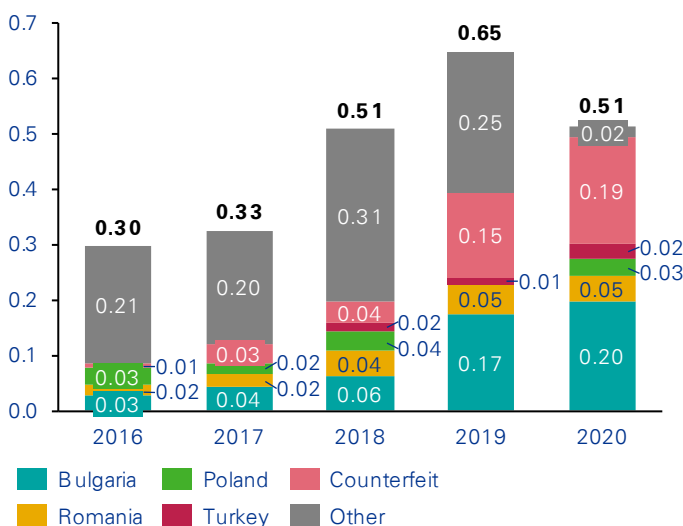


**ND(L) by brand – 2016-2020 (bn cigarettes)**

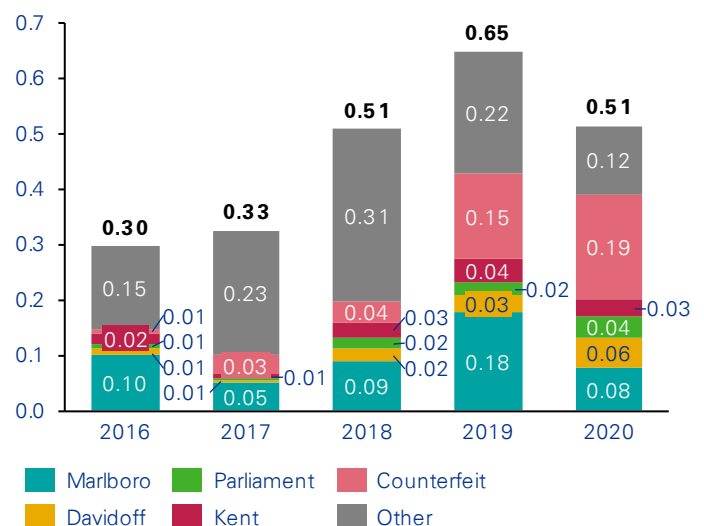


- Total legal inflows (ND(L)) decreased by 0.24bn, with all inflow sources declining except Luxembourg which increased by 0.08bn
- Bulgaria remains the primary source of illicit inflows, closely followed by Counterfeit
- The decline in overall C&C was due to a fall in a number of smaller volume 'Other' countries and 'Other' brands
- Regionally, C&C was highest in the West Flanders and Antwerp region; 60% of C&C in West Flanders and 38% of C&C in Antwerp were from Bulgaria

**C&C by country of origin – 2016-2020 (bn cigarettes)**



**C&C by brand – 2016-2020 (bn cigarettes)**



Note: (a) C&C breakdown chart only includes counterfeit volumes related to brands of manufacturers who participate in the empty pack/yellow bag surveys  
 Source: (1) KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section



# Bulgaria



# C&C cigarette consumption and total consumption

14.0bn

Cigarettes consumed<sup>(b)</sup>

0.2bn

C&C cigarettes consumed<sup>(b)</sup>

1.6%

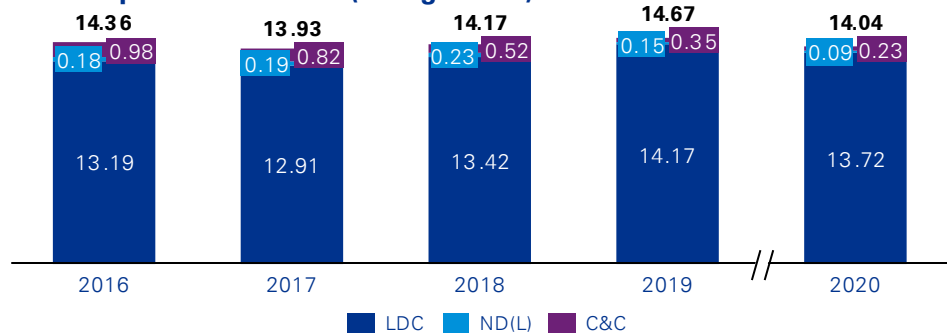
Of total consumption was C&C<sup>(b)</sup>

€26m

(BGN51m)<sup>(1)</sup>

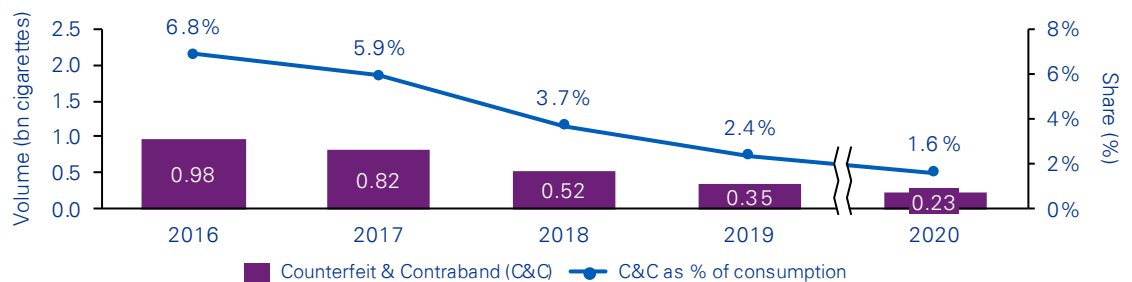
Estimated total tax revenue lost from C&C<sup>(b)</sup>

**Total consumption – 2016-2020 (bn cigarettes)**

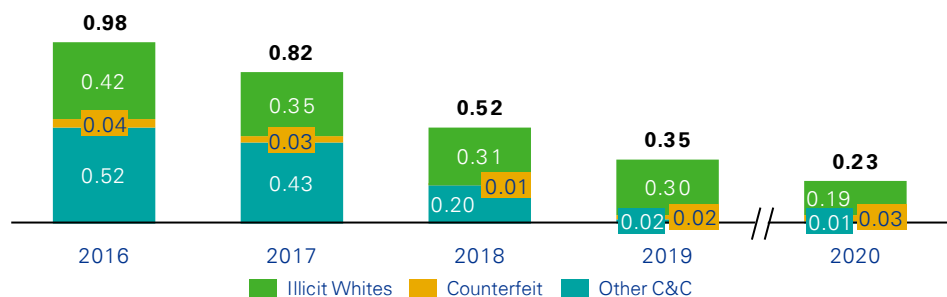


- C&C formed 1.6% of total cigarette consumption
- Illicit Whites remain the main category of illicit consumption, and accounted for 81% of C&C in 2020

**Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2016-2020**



**Breakdown of C&C consumption by type – 2016-2020 (bn cigarettes)**



Notes: (a) 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, (b) Bulgarian LDS has been calculated using customs data for 2020. For 2016-19, it is based on IMS data. For this reason, 2020 consumption data shown above is not directly comparable to the historical figure, and as a result we have not commented on 2020 results compared to 2016-2019 results. 2020 Bulgarian IMS was 14.17bn vs customs data of 14.77bn  
Sources: (1) EUR 1 = BGN 01.96, InforEuro, European Commission, December 2020, (2) KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section

# Manufactured cigarette consumption, inflows and outflows

## Total manufactured cigarette consumption – 2016-2020

Total Bulgaria Consumption					
Billion cigarettes	2016	2017	2018	2019	2020 <sup>(b)</sup>
Legal Domestic Sales (LDS)	13.83	13.71	14.34	15.31	14.77
Outflows	(0.64)	(0.79)	(0.93)	(1.14)	(1.05)
Legal Domestic Consumption (LDC)	13.19	12.91	13.42	14.17	13.72
Non-Domestic Legal (ND(L))	0.18	0.19	0.23	0.15	0.09
Counterfeit and Contraband (C&C)	0.98	0.82	0.52	0.35	0.23
Total Non-Domestic	1.16	1.02	0.75	0.50	0.32
<b>Total Consumption</b>	<b>14.36</b>	<b>13.93</b>	<b>14.17</b>	<b>14.67</b>	<b>14.04</b>

- We note that LDS has been calculated using customs data for 2020. For 2016-19, it is based on IMS data. For this reason, 2020 consumption data shown above is not directly comparable to the historical figures
- Illicit Whites with no country-specific labelling were the largest source of non-domestic inflows into Bulgaria
- Outflows from Bulgaria were mainly to higher-priced countries in Western Europe

## Total inflows by country of origin – 2016-2020

Inflows to Bulgaria					
Billion cigarettes	2016	2017	2018	2019	2020
IWs with no country-specific labelling	0.36	0.36	0.40	0.26	0.17
Duty Free Labelled	0.34	0.37	0.16	0.07	0.06
Counterfeit	0.04	0.03	0.01	0.02	0.03
Other	0.42	0.25	0.19	0.14	0.06
<b>Total Inflows</b>	<b>1.16</b>	<b>1.02</b>	<b>0.75</b>	<b>0.50</b>	<b>0.32</b>

## Total outflows by country of origin – 2016-2020

Outflows from Bulgaria					
Billion cigarettes	2016	2017	2018	2019	2020
France	(0.11)	(0.22)	(0.28)	(0.26)	(0.25)
Germany	(0.12)	(0.14)	(0.14)	(0.18)	(0.21)
Belgium	(0.03)	(0.06)	(0.09)	(0.20)	(0.21)
Netherlands	(0.06)	(0.04)	(0.05)	(0.05)	(0.10)
UK	(0.09)	(0.16)	(0.15)	(0.21)	(0.08)
Other	(0.23)	(0.17)	(0.23)	(0.22)	(0.20)
<b>Total Outflows</b>	<b>(0.64)</b>	<b>(0.79)</b>	<b>(0.93)</b>	<b>(1.14)</b>	<b>(1.05)</b>

Notes: (a) Inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows. Remaining flows are included in the 'Other' category, (b) Bulgarian LDS has been calculated using customs data for 2020. For 2016-19, it is based on IMS data. For this reason, 2020 consumption data shown above is not directly comparable to the historical figure, and as a result we have not commented on 2020 results compared to 2016-2019 results. 2020 Bulgarian IMS was 14.17bn vs customs data of 14.77bn

Source: KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section

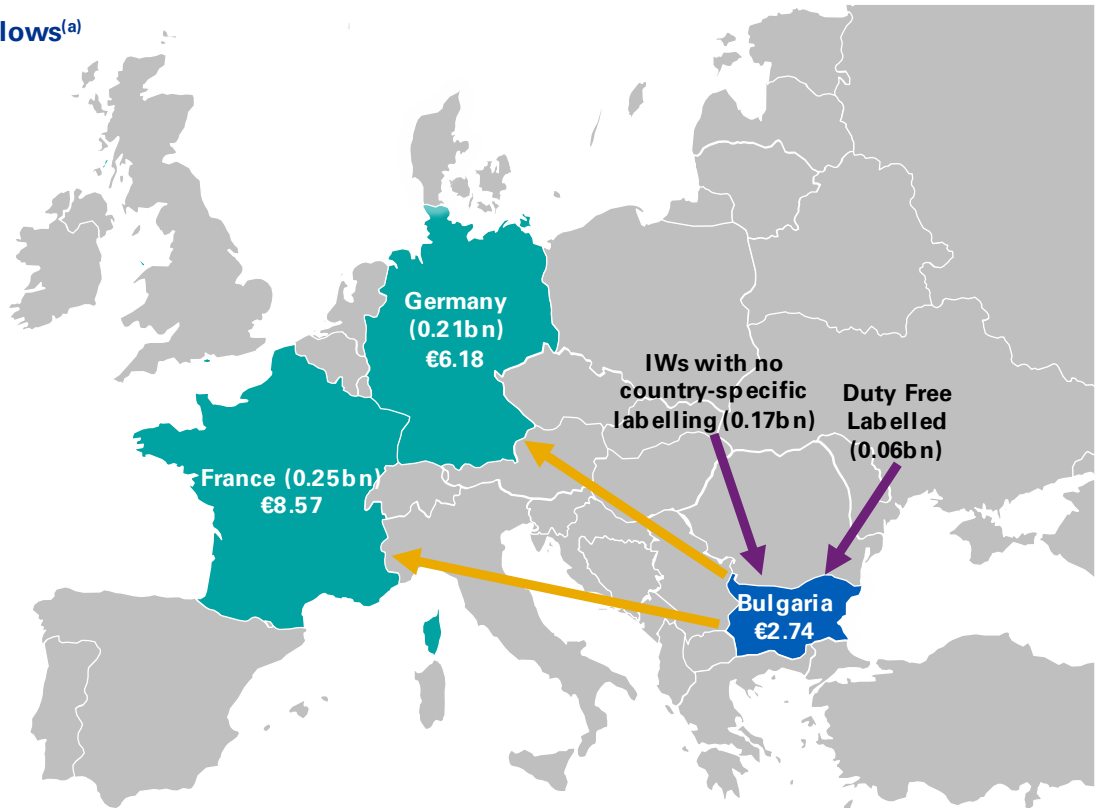


# Key flows and C&C consumption patterns

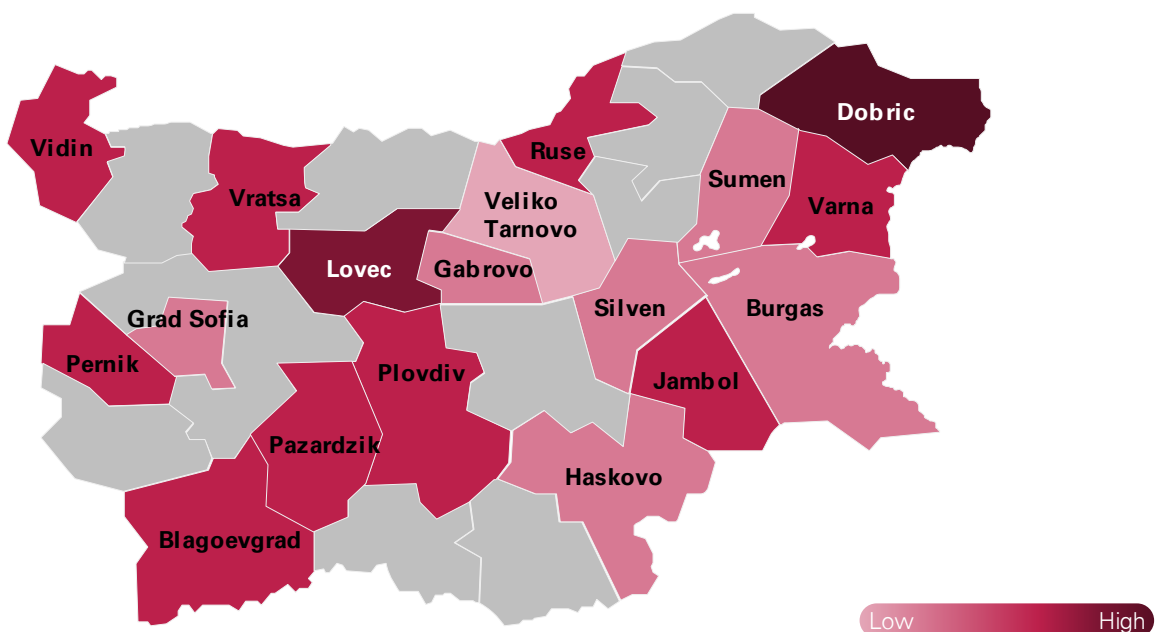
## Key inflows and outflows<sup>(a)</sup>

- Bulgaria
- Source
- Destination
- Inflow
- Outflow

**Label description:**  
Country (Inflow/  
Outflow Volume)  
WAP



## C&C % by region<sup>(b)(c)</sup>

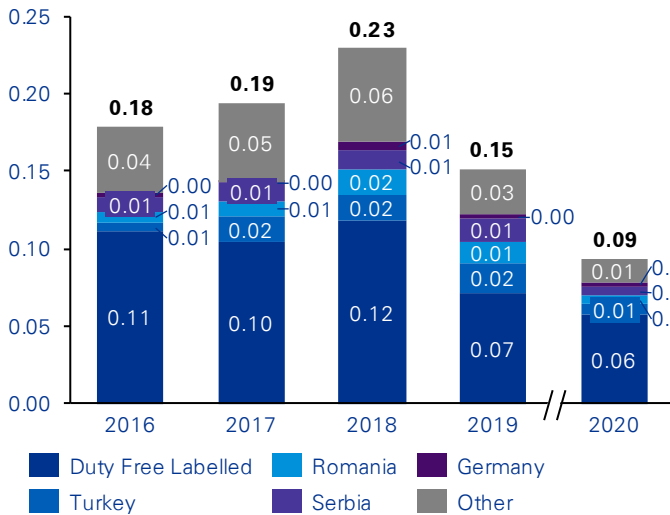


Note: (a) For countries with both inflows and outflows, only the larger of the two flows have been shown (b) C&C scale is relative to this market and is not comparable with other markets in the study, (c) Data not available for regions in grey

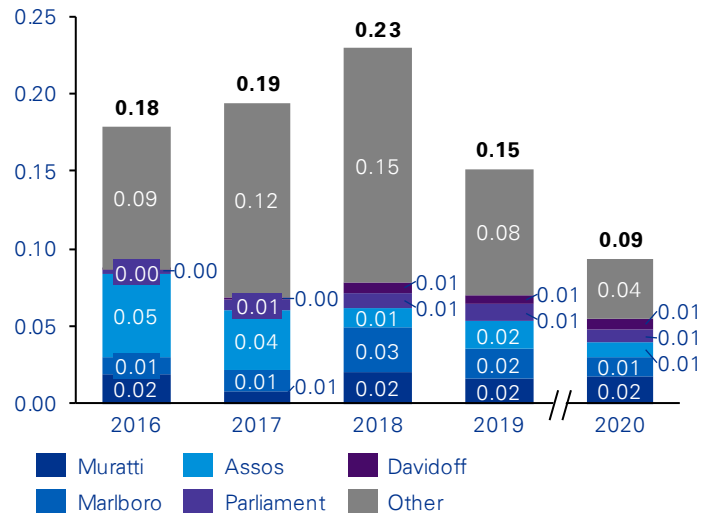
Source: (1) KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section

# ND(L) and C&C flows

**ND(L) by country of origin – 2016-2020 (bn cigarettes)**



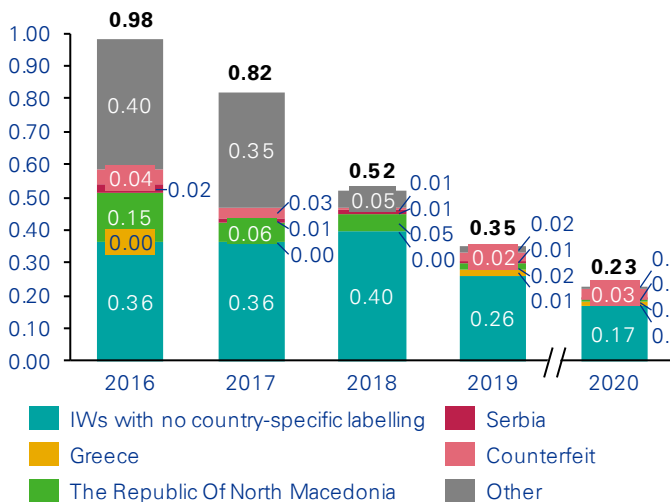
**ND(L) by brand – 2016-2020 (bn cigarettes)**



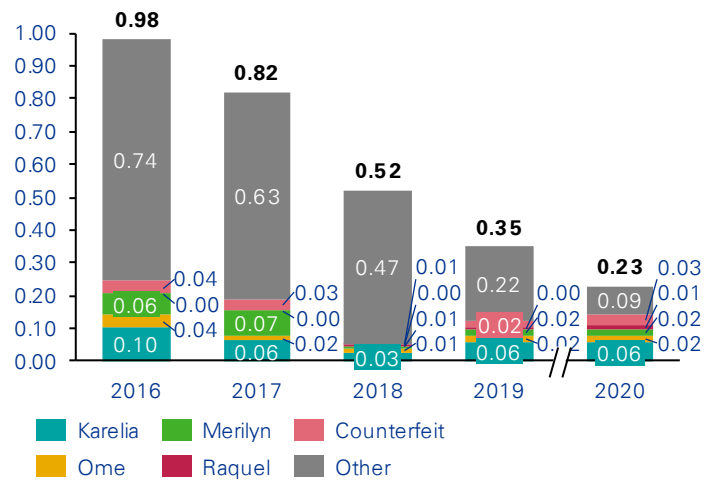
— Duty Free was the largest source of non-domestic legal (ND(L)) inflows in 2020

— Illicit Whites with no country specific labels accounted for 73% of C&C

**C&C by country of origin – 2016-2020 (bn cigarettes)**



**C&C by brand – 2016-2020 (bn cigarettes)**



Note: (a) Bulgarian LDS has been calculated using customs data for 2020. For 2016-19, it is based on IMS data. For this reason, 2020 consumption data shown above is not directly comparable to the historical figure, and as a result we have not commented on 2020 results compared to 2016-2019 results. 2020 Bulgarian IMS was 14.17bn vs customs data of 14.77bn (b) C&C breakdown chart only includes counterfeit volumes related to brands of manufacturers who participate in the empty pack/yellow bag surveys

Source: (1) KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section



**KPMG**

Croatia





# C&C cigarette consumption and total consumption

5.8bn

Cigarettes consumed



-0.52bn on 2019

0.4bn

C&C cigarettes consumed



-0.08bn on 2019

6.6%

Of total consumption was C&C



-0.79%pts on 2019

€57m

(kn430m)<sup>(1)</sup>

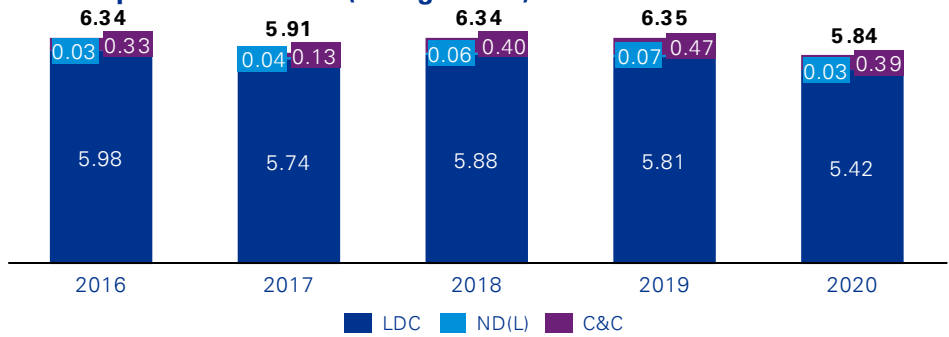
Estimated total tax revenue lost from C&C



-7m on 2019

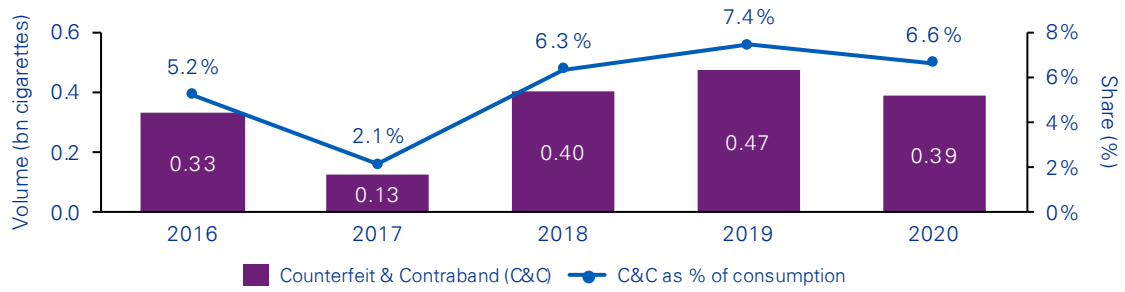


Total consumption – 2016-2020 (bn cigarettes)

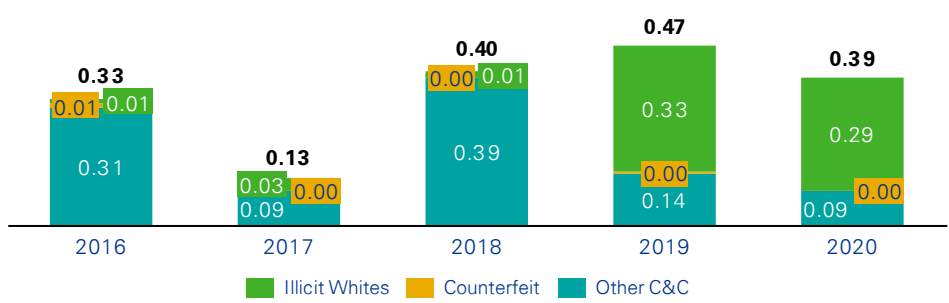


- C&C decreased to 6.6% of total cigarette consumption in 2020, reversing the growth observed between 2017 and 2019
- Illicit Whites accounted for 76% of total C&C in 2020, a slight increase on 2019 levels (70%), with Other C&C representing the remaining illicit consumption. Both Illicit Whites and Other C&C inflows declined in 2020

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2016-2020



Breakdown of C&C consumption by type – 2016-2020 (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

Sources: (1) EUR 1 = kn 7.56, InforEuro, European Commission, December 2020; (2) KPMG EU Flows Calculation 2020. 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 – 2016-2020

Total Croatia Consumption						
Billion cigarettes	2016	2017	2018	2019	2020	2019-20 (%)
Legal Domestic Sales (LDS)	6.30	6.07	6.27	6.22	5.69	(9%)
Outflows	(0.33)	(0.33)	(0.39)	(0.40)	(0.26)	(34%)
Legal Domestic Consumption (LDC)	5.98	5.74	5.88	5.81	5.42	(7%)
Non-Domestic Legal (ND(L))	0.03	0.04	0.06	0.07	0.03	(55%)
Counterfeit and Contraband (C&C)	0.33	0.13	0.40	0.47	0.39	(18%)
Total Non-Domestic	0.35	0.17	0.47	0.54	0.42	(23%)
<b>Total Consumption</b>	<b>6.33</b>	<b>5.91</b>	<b>6.34</b>	<b>6.35</b>	<b>5.84</b>	<b>(8%)</b>

- Following two years of increase, total cigarette consumption declined by 8% to 5.8bn cigarettes, primarily driven by lower legal domestic consumption
  - Reduced legal domestic consumption is partly driven by lower opportunities to consume cigarettes due to closures of hotels, restaurants and cafes as a result of COVID-19<sup>(1)</sup> coupled with an increase in consumption of other tobacco/nicotine categories<sup>(2)</sup>
- Illicit Whites with no country-specific labelling remained the largest source of inflows to Croatia
- Croatian outflows are primarily to countries for which Croatia is a popular tourism destination, with outflows declining by 34% against a backdrop of COVID-19 travel restrictions

## Total inflows by country of origin – 2016-2020

Inflows to Croatia					
Billion cigarettes	2016	2017	2018	2019	2020
IWs with no country-specific labelling	0.00	0.03	0.02	0.32	0.29
Bosnia And Herzegovina	0.27	0.06	0.27	0.10	0.06
Other	0.08	0.07	0.17	0.12	0.07
<b>Total Inflows</b>	<b>0.35</b>	<b>0.17</b>	<b>0.47</b>	<b>0.54</b>	<b>0.42</b>

## Total outflows by country of origin – 2016-2020

Outflows from Croatia					
Billion cigarettes	2016	2017	2018	2019	2020
Germany	(0.11)	(0.15)	(0.16)	(0.18)	(0.16)
Austria	(0.05)	(0.04)	(0.03)	(0.03)	(0.02)
UK	(0.02)	(0.02)	(0.01)	(0.02)	(0.02)
Slovenia	(0.03)	(0.04)	(0.07)	(0.06)	(0.02)
Other	(0.12)	(0.09)	(0.12)	(0.11)	(0.04)
<b>Total Outflows</b>	<b>(0.33)</b>	<b>(0.33)</b>	<b>(0.39)</b>	<b>(0.40)</b>	<b>(0.26)</b>

Note: Inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows. Remaining flows are included in the 'Other' category  
 Source: KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section (1) Market interview (2) Euromonitor as on May 2021

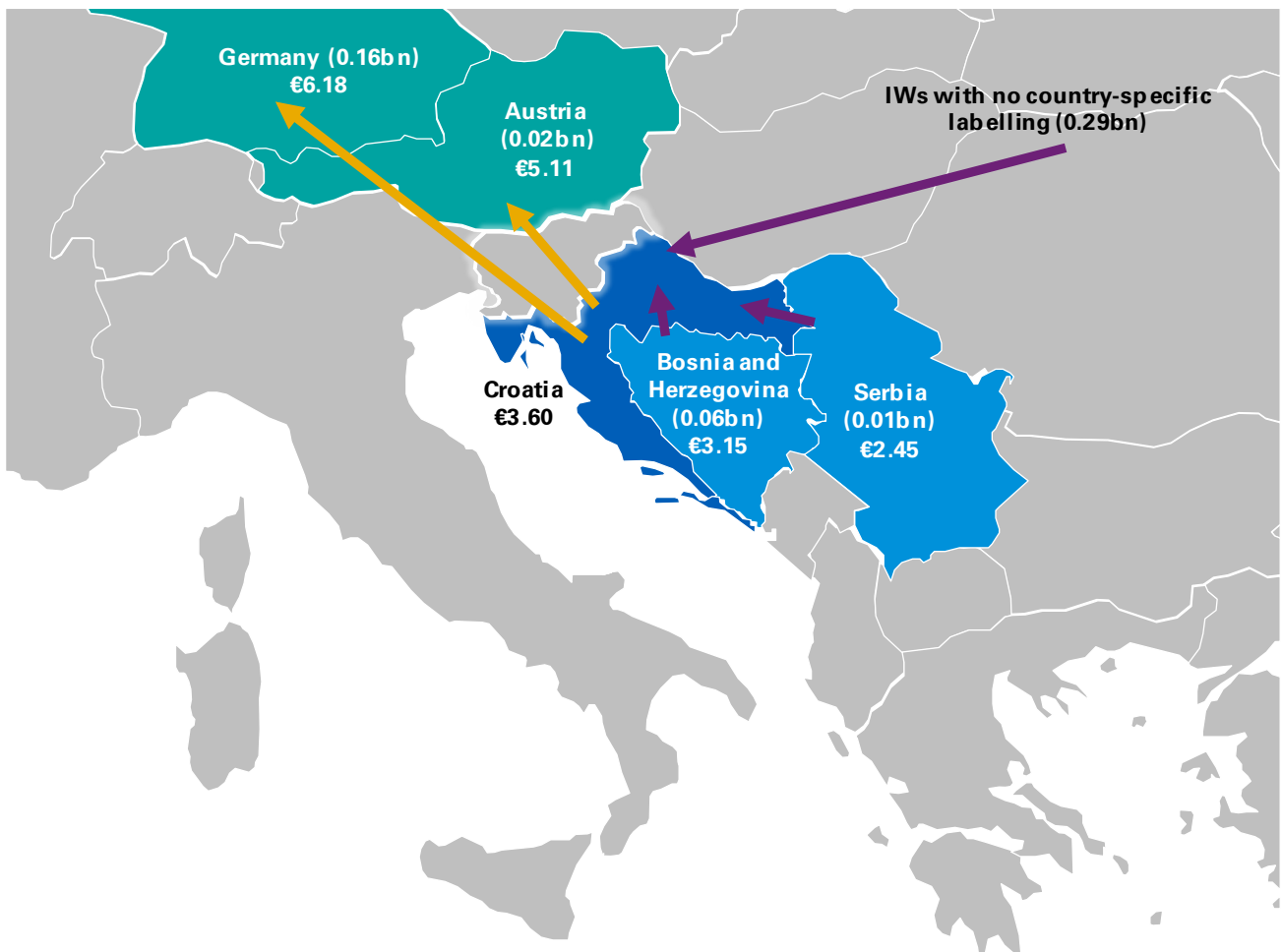
# Key flows

## Key inflows and outflows<sup>(a)</sup>

- Croatia
- Source
- Destination
- Inflow
- Outflow

### Label description:

Country (Inflow/  
Outflow Volume)  
WAP

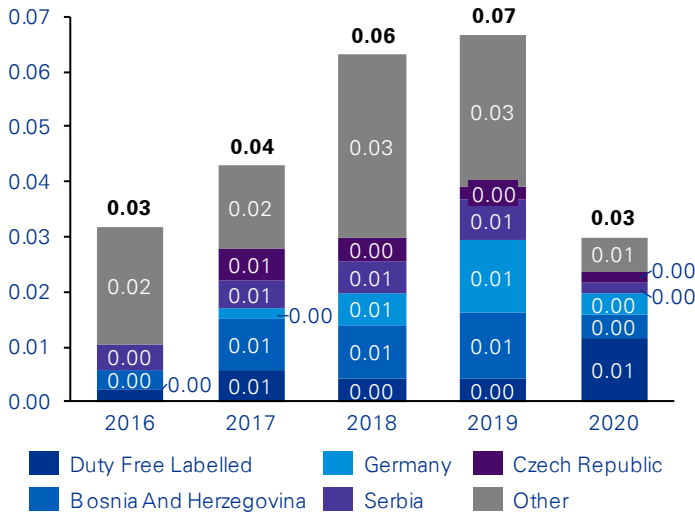


Note: (a) For countries with both inflows and outflows, only the larger of the two flows have been shown

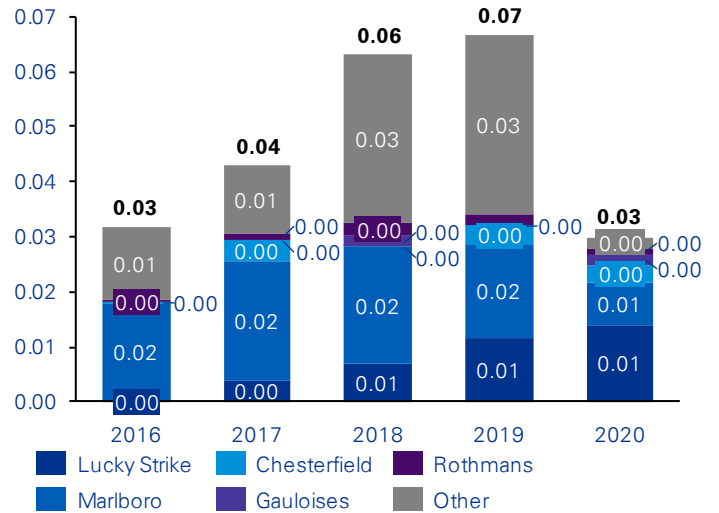
Source: (1) KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section

# ND(L) and C&C flows

**ND(L) by country of origin – 2016-2020 (bn cigarettes)**

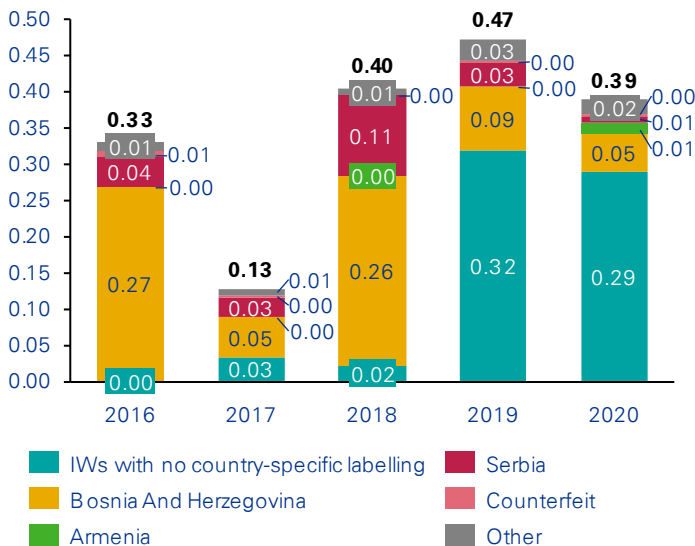


**ND(L) by brand – 2016-2020 (bn cigarettes)**

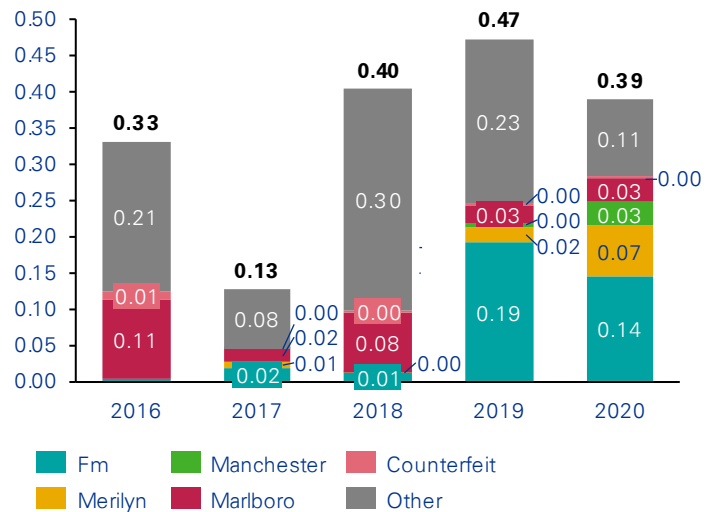


- ND(L) flows in 2020 declined by 55%, driven by border closures and travel restrictions
- Illicit Whites with no country-specific labelling remained the largest source of C&C

**C&C by country of origin – 2016-2020 (bn cigarettes)**



**C&C by brand – 2016-2020 (bn cigarettes)**



Note: (a) C&C breakdown chart only includes counterfeit volumes related to brands of manufacturers who participate in the empty pack/yellow bag surveys  
 Source: (1) KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section



**KPMG**

# Cyprus







# C&C cigarette consumption and total consumption

1.0bn

Cigarettes consumed



-0.25bn on 2019



0.1bn

C&C cigarettes consumed



-0.09bn on 2019



8.6%

Of total consumption was C&C



-5.72%pts on 2019



€13m

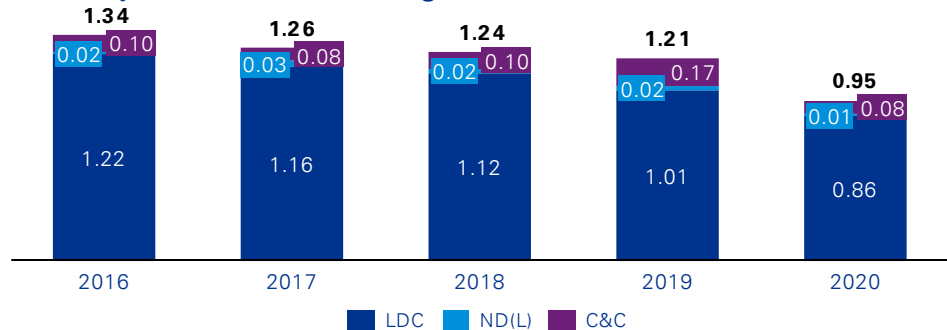
Estimated total tax revenue lost from C&C



-€15m on 2019

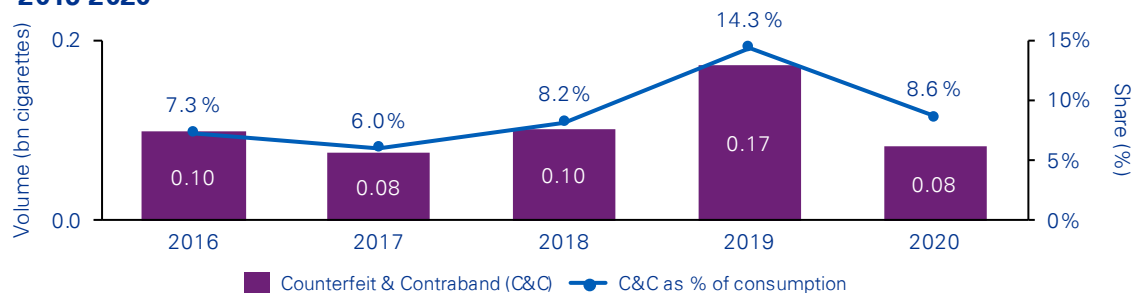


Total consumption – 2016-2020 (bn cigarettes)

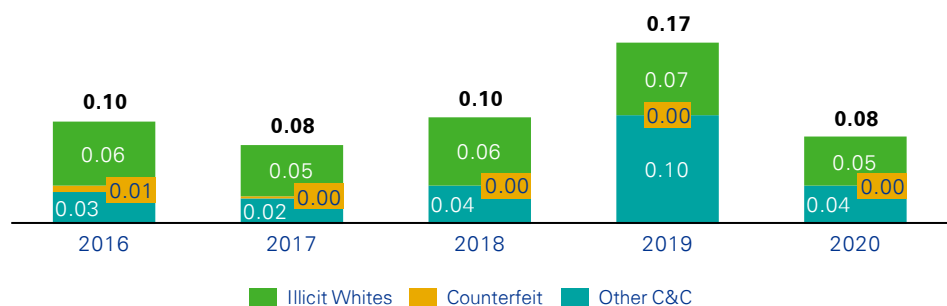


- C&C decreased to 8.6% of total cigarette consumption in 2020, reversing the growth observed between 2017 and 2019
- C&C was primarily comprised of Illicit Whites and Other C&C, volumes of both categories declined in 2020

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2016-2020



Breakdown of C&C consumption by type – 2016-2020 (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 2020. 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 – 2016-2020

Total Cyprus Consumption						
Billion cigarettes	2016	2017	2018	2019	2020	2019-20 (%)
Legal Domestic Sales (LDS)	1.28	1.22	1.14	1.06	0.91	(14%)
Outflows	(0.05)	(0.06)	(0.02)	(0.04)	(0.04)	(4%)
Legal Domestic Consumption (LDC)	1.22	1.16	1.12	1.01	0.86	(15%)
Non-Domestic Legal (ND(L))	0.02	0.03	0.02	0.02	0.01	(66%)
Counterfeit and Contraband (C&C)	0.10	0.08	0.10	0.17	0.08	(53%)
Total Non-Domestic	0.12	0.10	0.12	0.20	0.09	(54%)
<b>Total Consumption</b>	<b>1.34</b>	<b>1.26</b>	<b>1.24</b>	<b>1.21</b>	<b>0.95</b>	<b>(21%)</b>

- Total cigarette consumption continued to decline and reached 0.95bn in 2020, as both legal domestic consumption and non-domestic inflows reduced.
- Northern Cyprus was the largest source of non-domestic inflows in 2019 but has reduced in 2020 as a result of border closures linked to the COVID-19 pandemic

## Total inflows by country of origin – 2016-2020

Inflows to Cyprus						
Billion cigarettes	2016	2017	2018	2019	2020	
IWs with no country-specific labelling	0.06	0.05	0.06	0.06	0.04	
Northern Cyprus	0.00	0.01	0.03	0.07	0.02	
Duty Free Labelled	0.02	0.02	0.01	0.05	0.01	
Other	0.03	0.03	0.01	0.01	0.01	
<b>Total Inflows</b>	<b>0.12</b>	<b>0.10</b>	<b>0.12</b>	<b>0.20</b>	<b>0.09</b>	

## Total outflows by country of origin – 2016-2020

Outflows from Cyprus						
Billion cigarettes	2016	2017	2018	2019	2020	
UK	(0.03)	(0.03)	(0.01)	(0.03)	(0.03)	
Other	(0.03)	(0.02)	(0.01)	(0.01)	(0.01)	
<b>Total Outflows</b>	<b>(0.05)</b>	<b>(0.06)</b>	<b>(0.02)</b>	<b>(0.04)</b>	<b>(0.04)</b>	

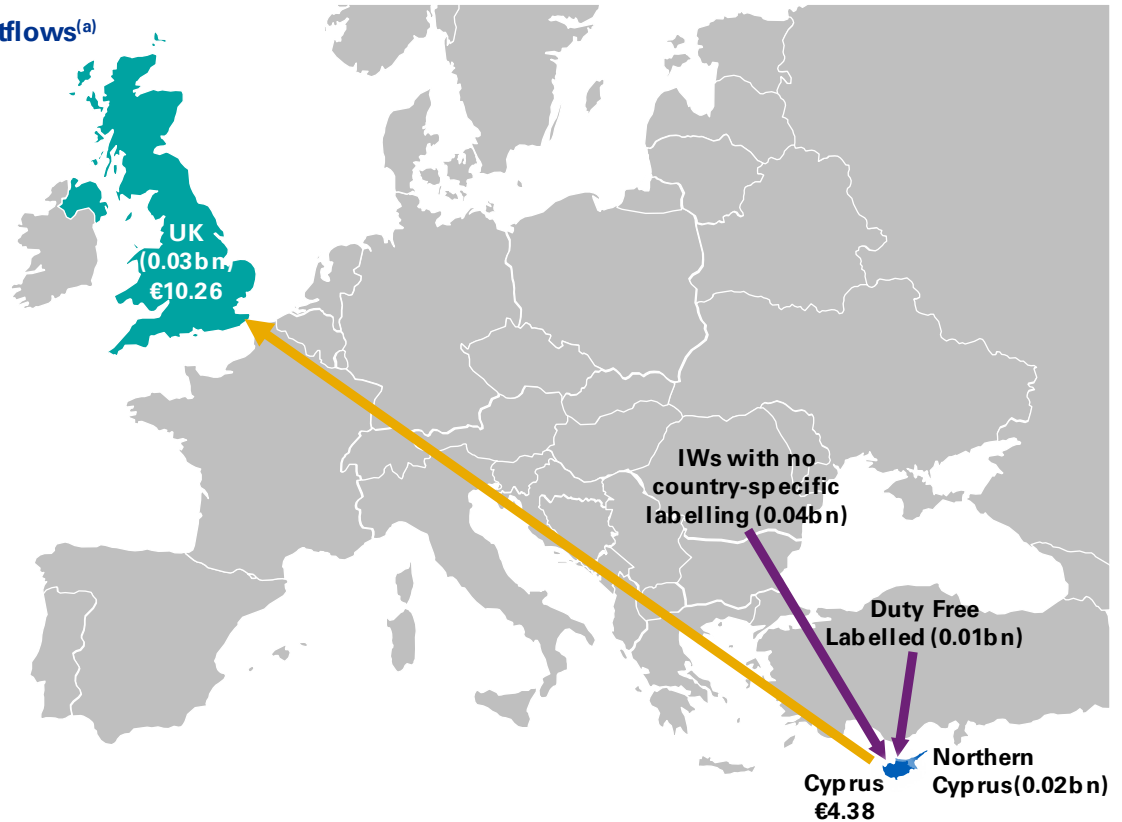
Note: Inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows. Remaining flows are included in the 'Other' category  
Source: KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section

# Key flows and C&C consumption patterns

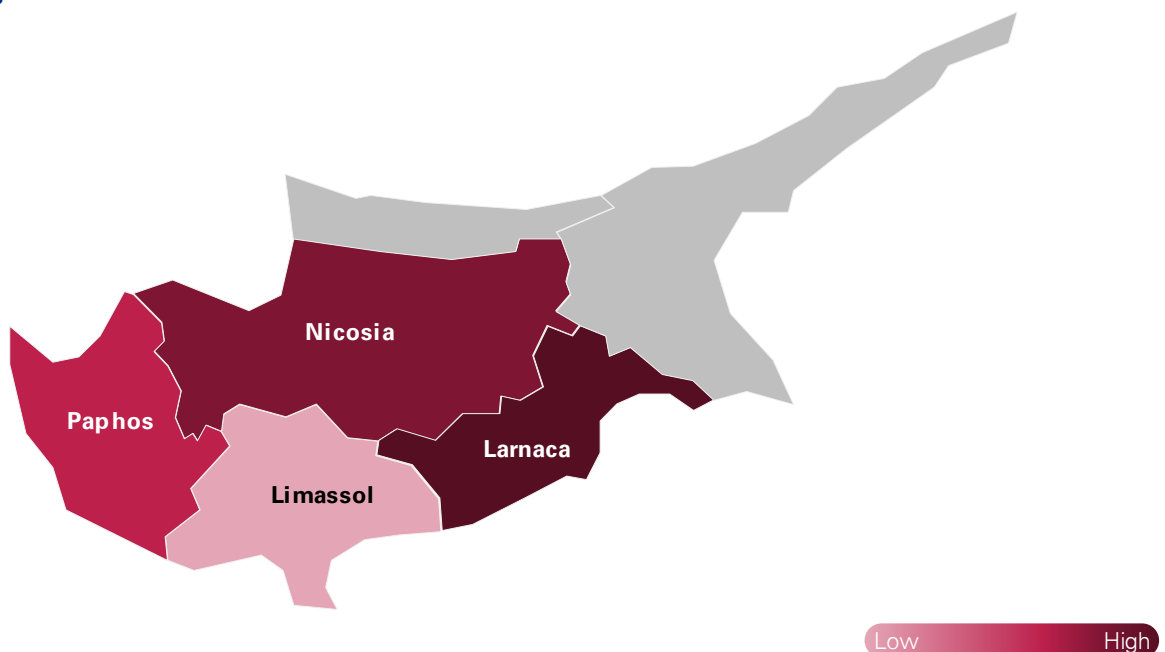
## Key inflows and outflows<sup>(a)</sup>

- Cyprus
- Source
- Destination
- Inflow
- Outflow

**Label description:**  
Country (Inflow/  
Outflow Volume)  
WAP



## C&C % by region<sup>(b)(c)</sup>



Note: (a) For countries with both inflows and outflows, only the larger of the two flows have been shown (b) C&C scale is relative to this market and is not comparable with other markets in the study, (c) Data not available for regions in grey

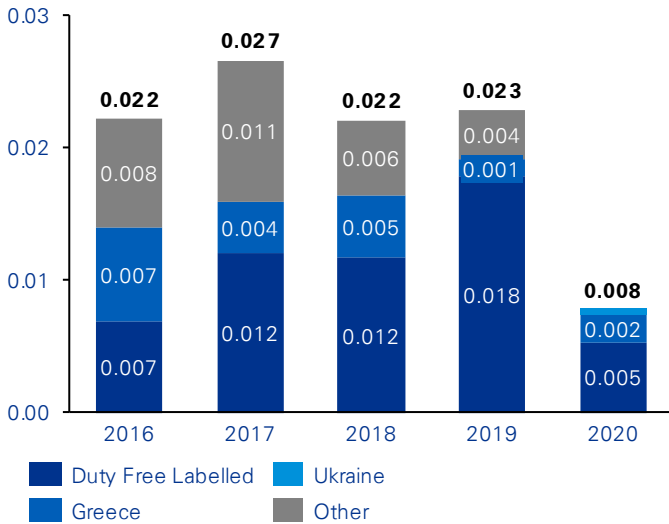
Source: (1) KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section



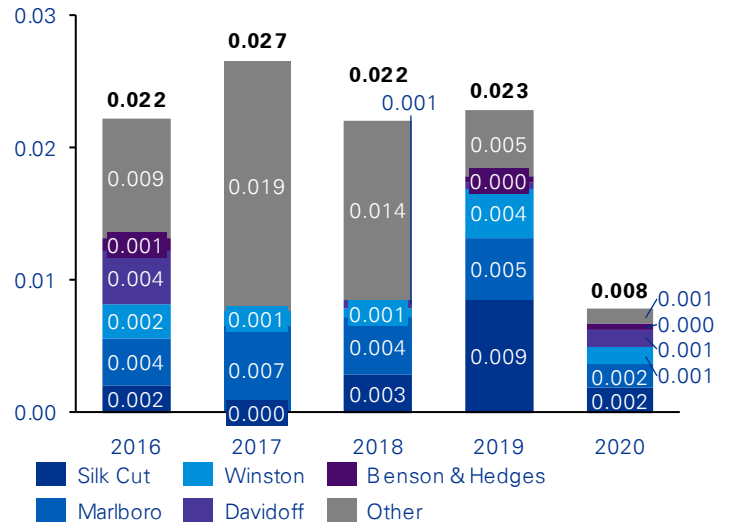
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# ND(L) and C&C flows

**ND(L) by country of origin – 2016-2020 (bn cigarettes)**

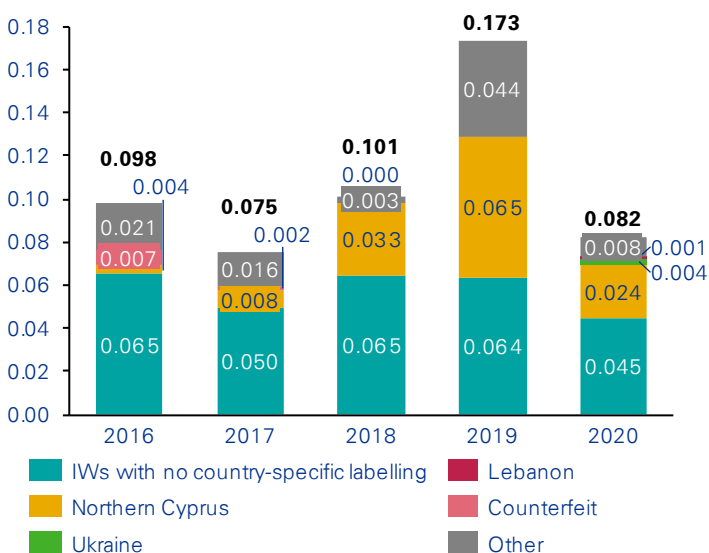


**ND(L) by brand – 2016-2020 (bn cigarettes)**

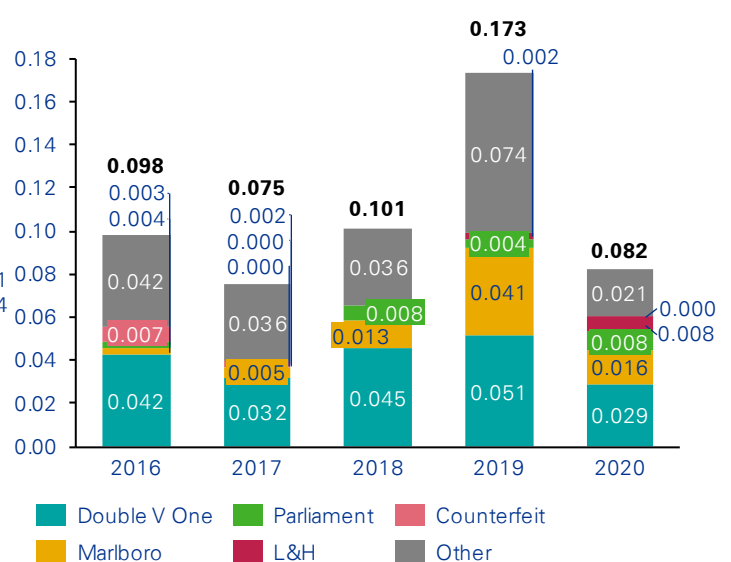


- ND(L) declined by 66% in 2020 against a backdrop of reduced traveller volumes due to COVID-19
- The decline in C&C was principally driven by declining flows from Northern Cyprus and a number of smaller source markets within the 'Other' category

**C&C by country of origin – 2016-2020 (bn cigarettes)**



**C&C by brand – 2016-2020 (bn cigarettes)**



Note: (a) C&C breakdown chart only includes counterfeit volumes related to brands of manufacturers who participate in the empty pack/yellow bag surveys

Source: (1) KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section



# Czech Republic



# C&C cigarette consumption and total consumption

13.2bn

Cigarettes consumed



-3.10bn on 2019

0.3bn

C&C cigarettes consumed



-0.50bn on 2019

1.9%

Of total consumption was C&C



-2.73%pts on 2019

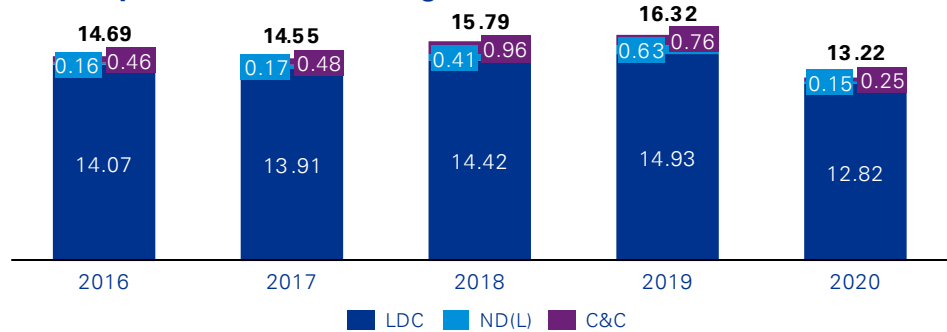
€37m

Estimated total tax revenue lost from C&C



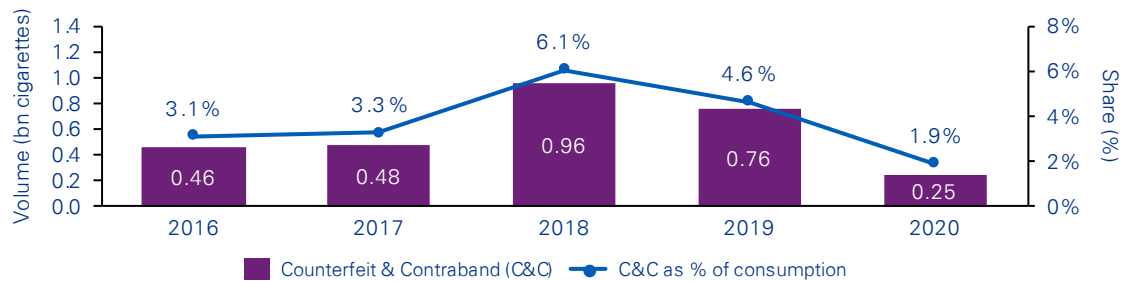
-€64m on 2019

Total consumption – 2016-2020 (bn cigarettes)

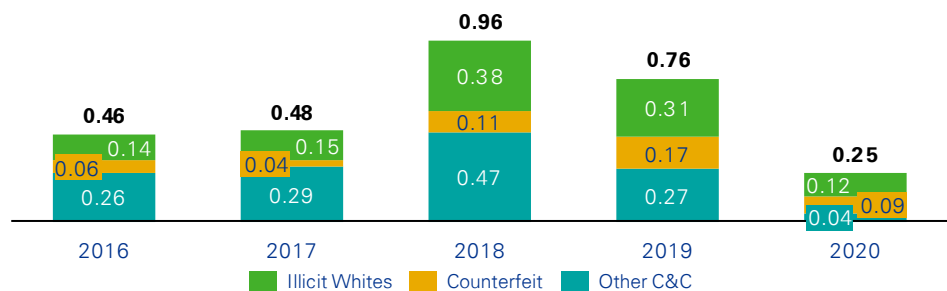


- C&C decreased to 1.9% of total cigarette consumption in 2020, falling by 2.7ppt. C&C volume declined from 0.76bn in 2019 to 0.25bn in 2020
- Illicit Whites, Counterfeit and Other C&C consumption all declined in 2020

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2016-2020



Breakdown of C&C consumption by type – 2016-2020 (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) KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section

# Manufactured cigarette consumption, inflows and outflows

## Total manufactured cigarette consumption – 2016-2020

Total Czech Republic Consumption						
Billion cigarettes	2016	2017	2018	2019	2020	2019-20 (%)
Legal Domestic Sales (LDS)	20.50	20.10	20.01	19.74	16.97	(14%)
Outflows	(6.43)	(6.19)	(5.58)	(4.81)	(4.15)	(14%)
Legal Domestic Consumption (LDC)	14.07	13.91	14.42	14.93	12.82	(14%)
Non-Domestic Legal (ND(L))	0.16	0.17	0.41	0.63	0.15	(77%)
Counterfeit and Contraband (C&C)	0.46	0.48	0.96	0.76	0.25	(67%)
Total Non-Domestic	0.62	0.64	1.37	1.39	0.40	(71%)
<b>Total Consumption</b>	<b>14.69</b>	<b>14.55</b>	<b>15.79</b>	<b>16.32</b>	<b>13.22</b>	<b>(19%)</b>

- Total consumption declined by 19% in 2020, principally driven by declining legal domestic sales and non-domestic inflows
- Inflows from all major source markets declined in 2020
- Outflows formed almost one quarter of total legal domestic sales in 2020, with approximately 90% of the outflows from Czech Republic to higher-priced neighbour Germany

## Total inflows by country of origin – 2016-2020

Inflows to Czech Republic					
Billion cigarettes	2016	2017	2018	2019	2020
Counterfeit	0.06	0.04	0.11	0.17	0.09
Belarus	0.07	0.09	0.15	0.10	0.06
Ukraine	0.15	0.15	0.23	0.17	0.05
IWs with no country-specific labelling	0.05	0.07	0.24	0.18	0.04
Germany	0.01	0.01	0.04	0.06	0.03
Other	0.27	0.28	0.61	0.70	0.13
<b>Total Inflows</b>	<b>0.62</b>	<b>0.64</b>	<b>1.37</b>	<b>1.39</b>	<b>0.40</b>

## Total outflows by country of origin – 2016-2020

Outflows from Czech Republic					
Billion cigarettes	2016	2017	2018	2019	2020
Germany	(5.45)	(5.00)	(4.68)	(4.09)	(3.68)
Other	(0.98)	(1.18)	(0.90)	(0.72)	(0.48)
<b>Total Outflows</b>	<b>(6.43)</b>	<b>(6.19)</b>	<b>(5.58)</b>	<b>(4.81)</b>	<b>(4.15)</b>

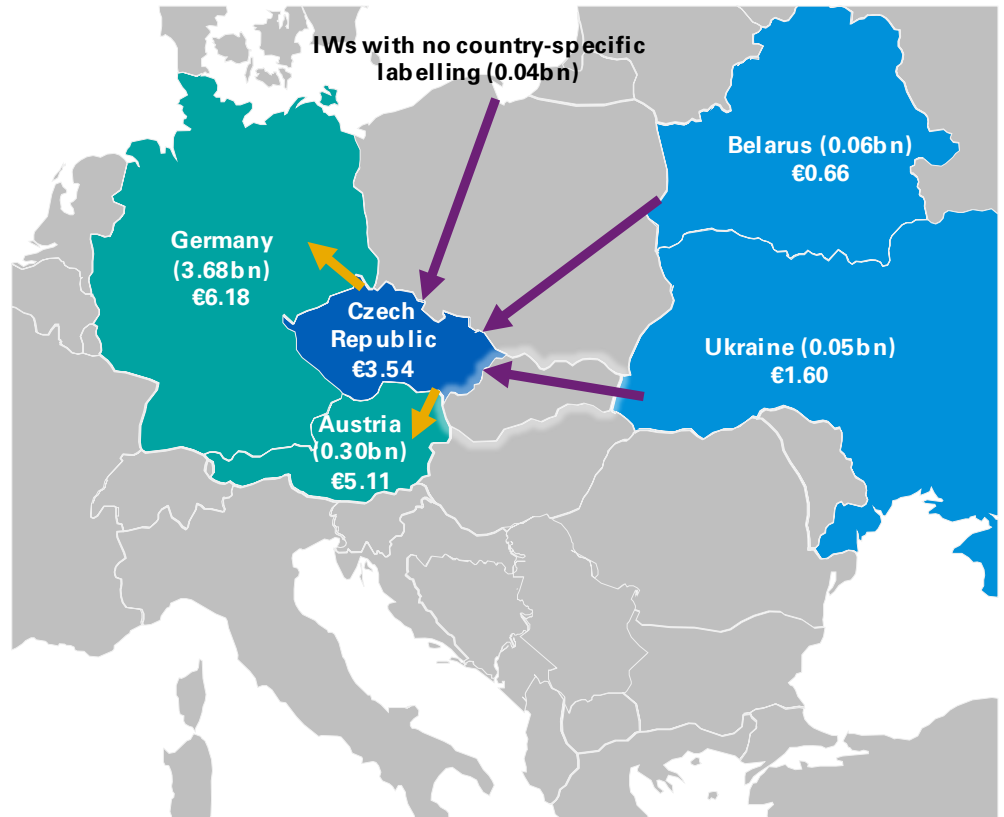
Note: Inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows. Remaining flows are included in the 'Other' category  
Source: (1) KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section

# Key flows and C&C consumption patterns

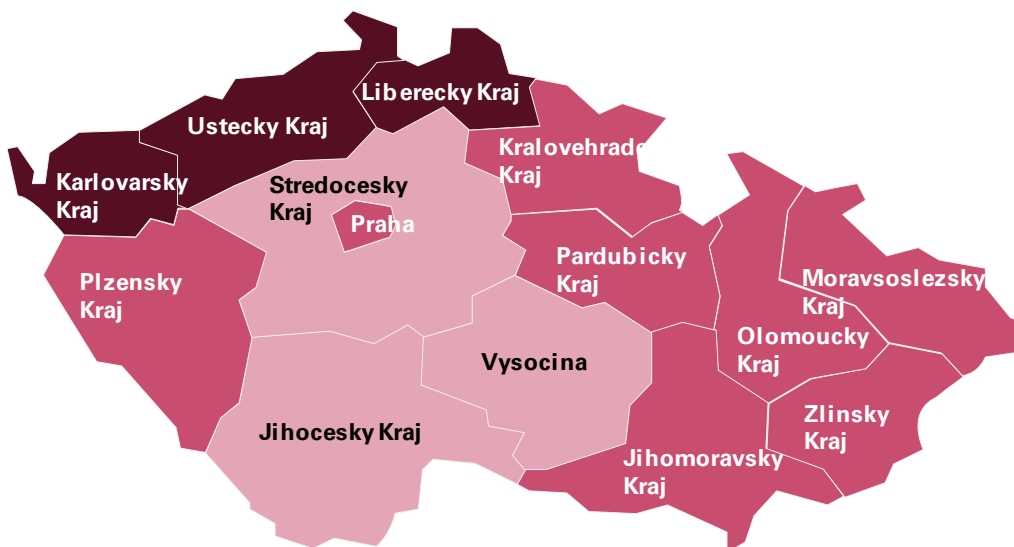
## Key inflows and outflows<sup>(a)</sup>

- Czech Republic
- Source
- Destination
- Inflow
- Outflow

**Label description:**  
Country (Inflow/  
Outflow Volume)  
WAP



## C&C % by region<sup>(b)(c)</sup>



Low High

Note: (a) For countries with both inflows and outflows, only the larger of the two flows have been shown (b) C&C scale is relative to this market and is not comparable with other markets in the study, (c) Data not available for regions in grey

Source: (1) KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section

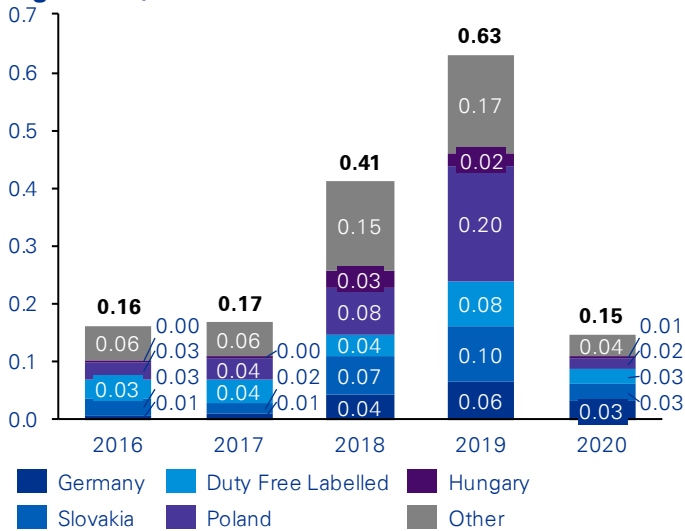


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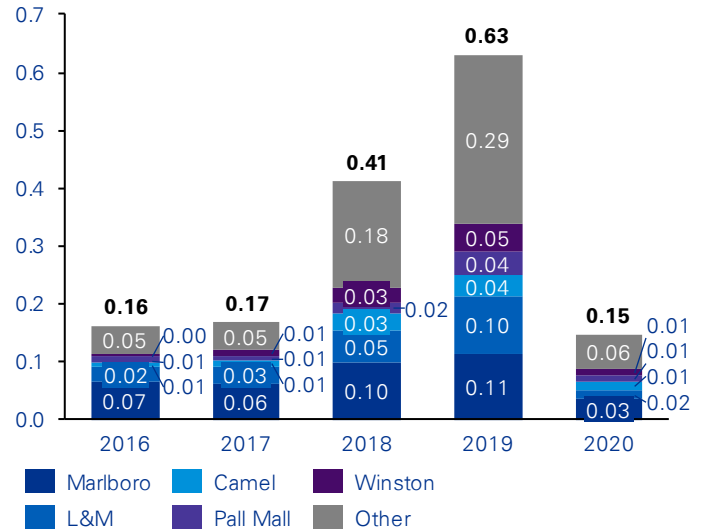


# ND(L) and C&C flows

**ND(L) by country of origin – 2016-2020 (bn cigarettes)**

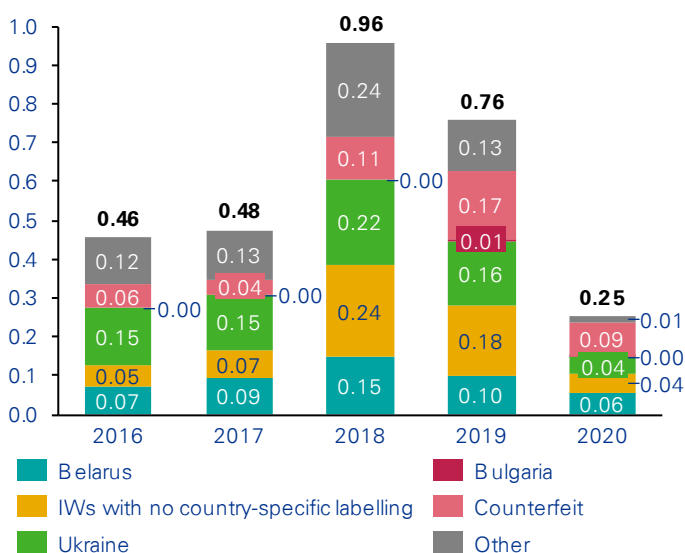


**ND(L) by brand – 2016-2020 (bn cigarettes)**

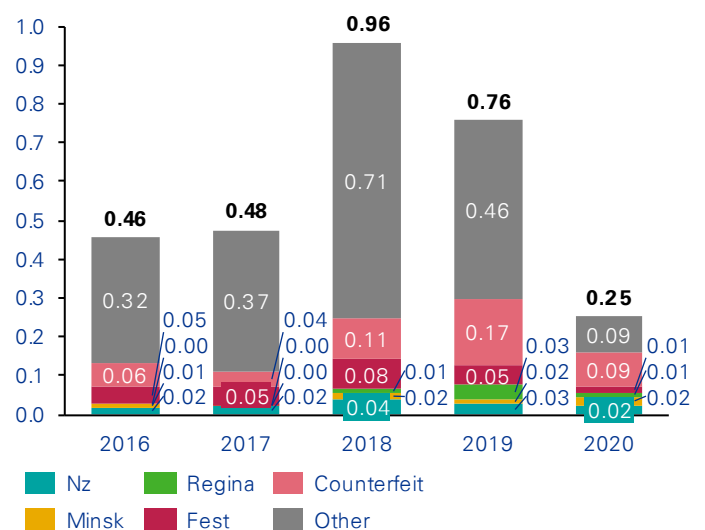


- Both non-domestic legal (ND(L)) and C&C volumes declined significantly in 2020
- The highest levels of C&C were found in the Karlovarsky Kraj, Liberecky Kraj and Ustecky Kraj regions with 39% of the C&C flow in these regions coming from Belarus, and with 42% being counterfeit

**C&C by country of origin – 2016-2020 (bn cigarettes)**



**C&C by brand – 2016-2020 (bn cigarettes)**

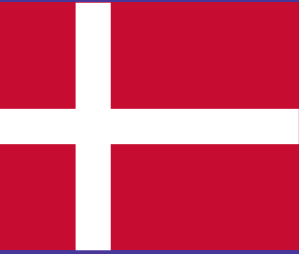


Note: (a) C&C breakdown chart only includes counterfeit volumes related to brands of manufacturers who participate in the empty pack/yellow bag surveys  
 Source: (1) KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section



# Denmark





# C&C cigarette consumption and total consumption

4.9bn

Cigarettes consumed



-1.27bn on 2019

0.1bn

C&C cigarettes consumed



-0.11bn on 2019

2.7%

Of total consumption was C&C



-1.20%pts on 2019

€38m

(DKK282m)<sup>(1)</sup>

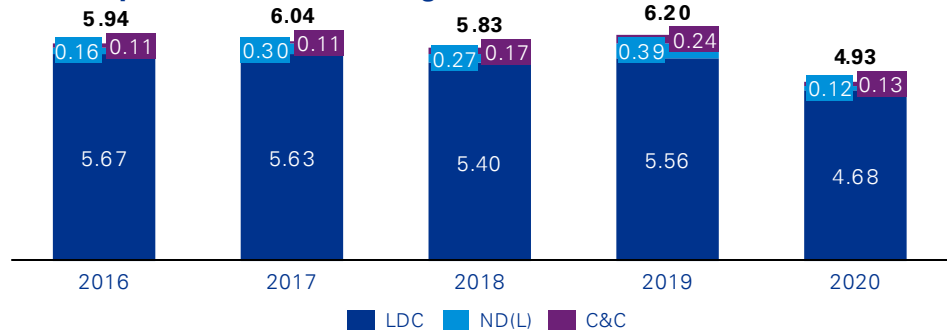
Estimated total tax revenue lost from C&C



-€14m on 2019

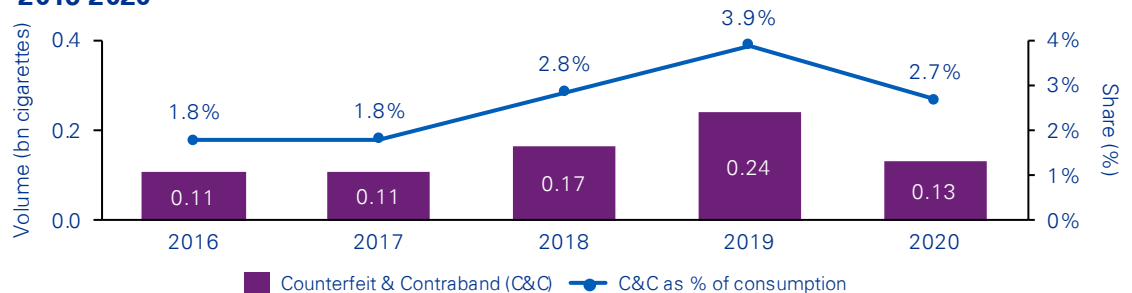


Total consumption – 2016-2020 (bn cigarettes)

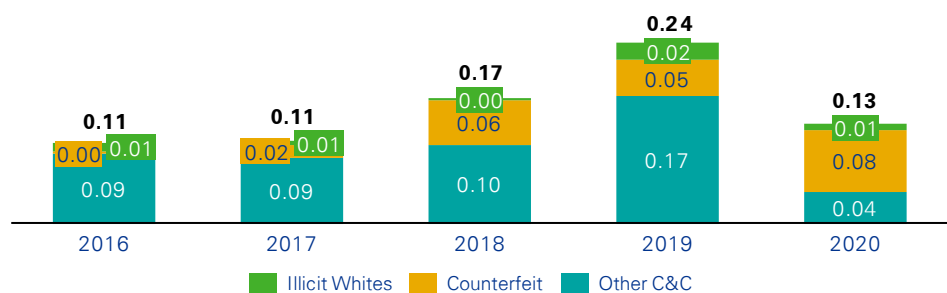


- C&C decreased to 2.7% of total consumption in 2020, reversing the trend for growth experienced since 2017
- An increase in Counterfeit inflows was more than offset by a decline in Other C&C

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2016-2020



Breakdown of C&C consumption by type – 2016-2020 (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

Sources: (1) EUR 1 = DEKK 7.44, InforEuro, European Commission, December 2020; (2) KPMG EU Flows Calculation 2020. 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 – 2016-2020

Total Denmark Consumption						
Billion cigarettes	2016	2017	2018	2019	2020	2019-20 (%)
Legal Domestic Sales (LDS)	5.78	5.74	5.51	5.68	4.75	(16%)
Outflows	(0.10)	(0.10)	(0.12)	(0.11)	(0.07)	(37%)
Legal Domestic Consumption (LDC)	5.67	5.63	5.40	5.56	4.68	(16%)
Non-Domestic Legal (ND(L))	0.16	0.30	0.27	0.39	0.12	(70%)
Counterfeit and Contraband (C&C)	0.11	0.11	0.17	0.24	0.13	(45%)
Total Non-Domestic	0.27	0.40	0.44	0.63	0.25	(61%)
<b>Total Consumption</b>	<b>5.94</b>	<b>6.04</b>	<b>5.83</b>	<b>6.20</b>	<b>4.93</b>	<b>(20%)</b>

- Total cigarette consumption decreased by 20%, driven by lower legal domestic sales against a backdrop of excise tax increases (from April 2020), and lower non-domestic inflows alongside travel restrictions and border closures as a result of COVID-19
- Duty Free inflows, historically the largest inflow source, declined by 77% in 2020, with Counterfeit becoming the largest inflow for the first time

## Total inflows by country of origin – 2016-2020

Inflows to Denmark						
Billion cigarettes	2016	2017	2018	2019	2020	
Counterfeit	0.00	0.02	0.06	0.05	0.08	
Duty Free Labelled	0.10	0.11	0.13	0.16	0.04	
Sweden	0.04	0.07	0.03	0.08	0.03	
Poland	0.02	0.02	0.01	0.02	0.03	
Bulgaria	0.01	0.01	0.02	0.01	0.02	
Other	0.10	0.18	0.19	0.31	0.06	
<b>Total Inflows</b>	<b>0.27</b>	<b>0.40</b>	<b>0.44</b>	<b>0.63</b>	<b>0.25</b>	

## Total outflows by country of origin – 2016-2020

Outflows from Denmark						
Billion cigarettes	2016	2017	2018	2019	2020	
Germany	(0.01)	(0.01)	(0.01)	(0.02)	(0.02)	
Netherlands	(0.02)	(0.02)	(0.01)	(0.02)	(0.01)	
Sweden	(0.01)	(0.02)	(0.02)	(0.02)	(0.01)	
UK	(0.01)	(0.01)	(0.01)	0.00	(0.01)	
France	0.00	(0.01)	(0.01)	(0.00)	(0.01)	
Other	(0.05)	(0.03)	(0.06)	(0.04)	(0.01)	
<b>Total Outflows</b>	<b>(0.10)</b>	<b>(0.10)</b>	<b>(0.12)</b>	<b>(0.11)</b>	<b>(0.07)</b>	

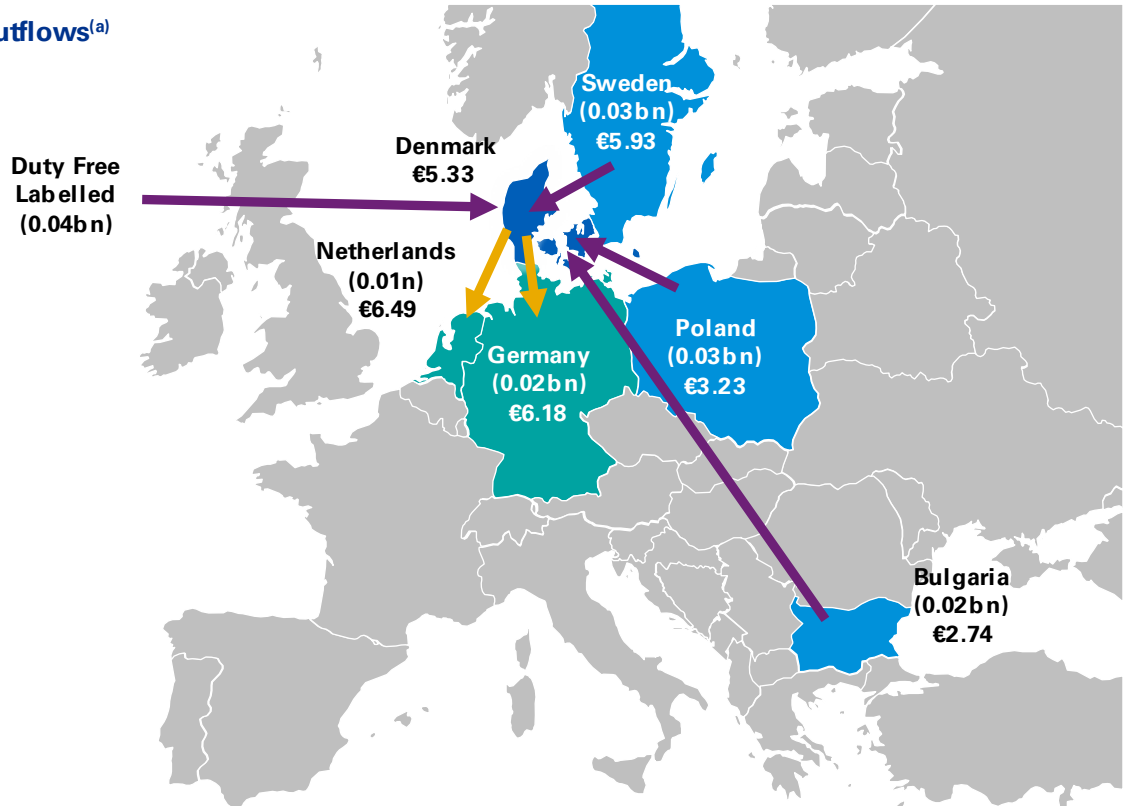
Note: Inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows. Remaining flows are included in the 'Other' category  
Source: KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section

# Key flows and C&C consumption patterns

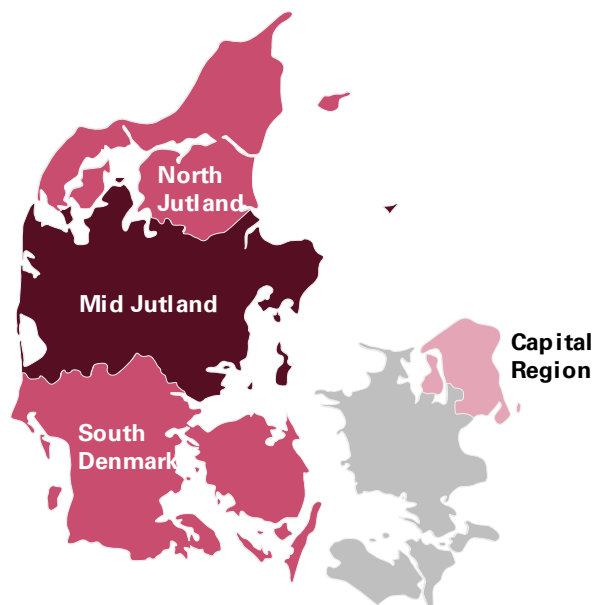
## Key inflows and outflows<sup>(a)</sup>

- Denmark
- Source
- Destination
- Inflow
- Outflow

**Label description:**  
Country (Inflow/  
Outflow Volume)  
WAP



## C&C % by region<sup>(b)(c)</sup>



Note: (a) For countries with both inflows and outflows, only the larger of the two flows have been shown (b) C&C scale is relative to this market and is not comparable with other markets in the study, (c) Data not available for regions in grey

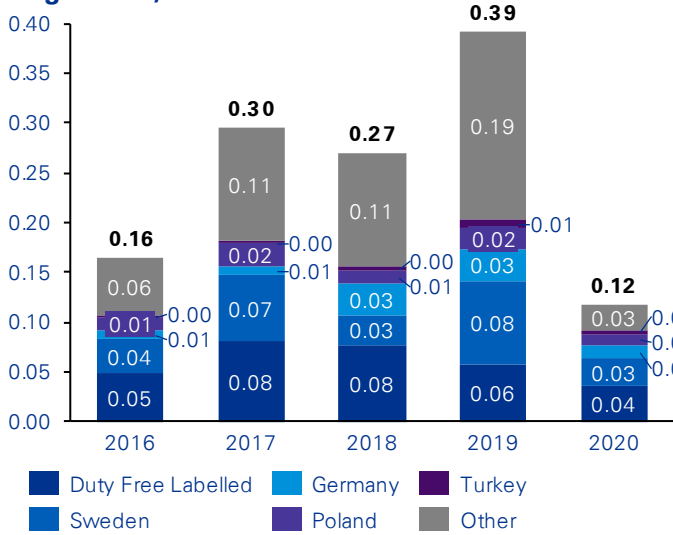
Source: (1) KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section



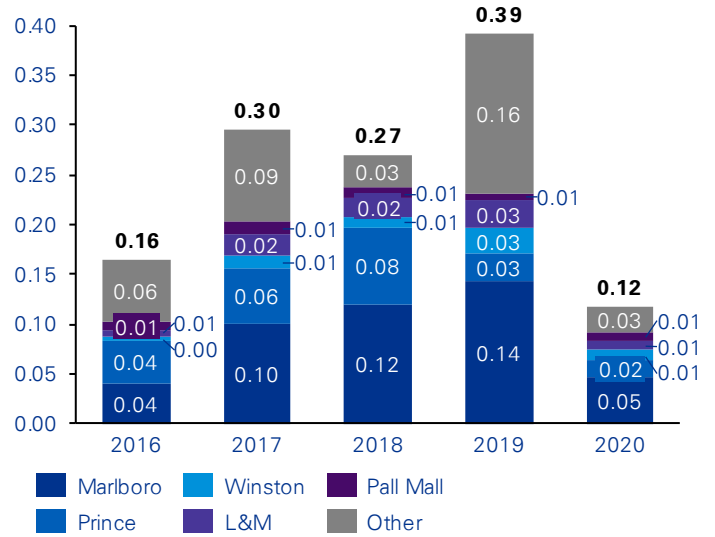
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# ND(L) and C&C flows

**ND(L) by country of origin – 2016-2020 (bn cigarettes)**



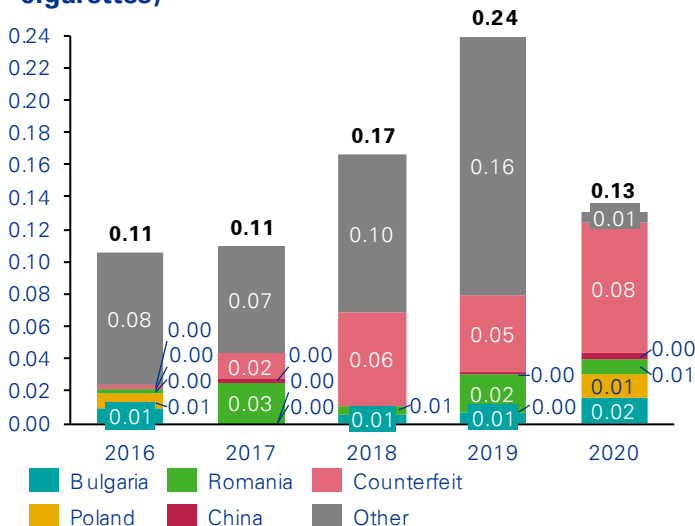
**ND(L) by brand – 2016-2020 (bn cigarettes)**



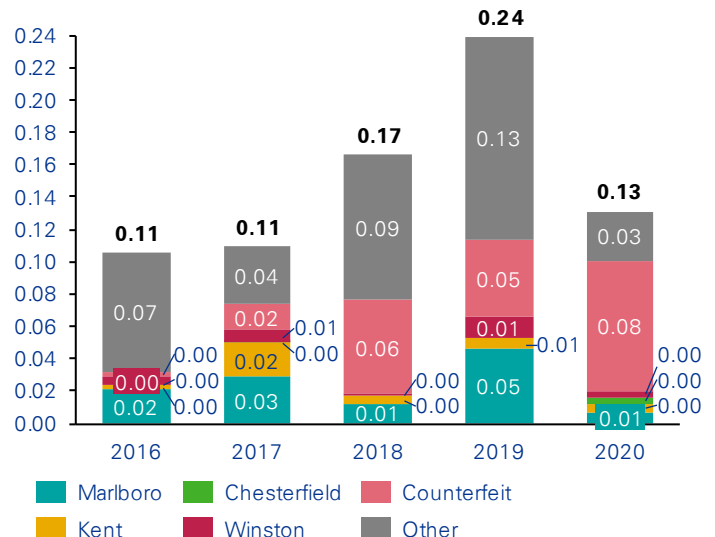
— Legal inflows (ND(L)) from all major sources declined in 2020

— C&C declined overall, albeit Counterfeit volume growth led to Counterfeit flows forming 62% of total C&C

**C&C by country of origin – 2016-2020 (bn cigarettes)**



**C&C by brand – 2016-2020 (bn cigarettes)**



Note: (a) C&C breakdown chart only includes counterfeit volumes related to brands of manufacturers who participate in the empty pack/yellow bag surveys  
 Source: (1) KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section



**KPMG**

Estonia



# C&C cigarette consumption and total consumption

1.3bn

Cigarettes consumed



-0.15bn on 2019

0.1bn

C&C cigarettes consumed



-0.02bn on 2019

6.7%

Of total consumption was C&C



-0.69%pts on 2019

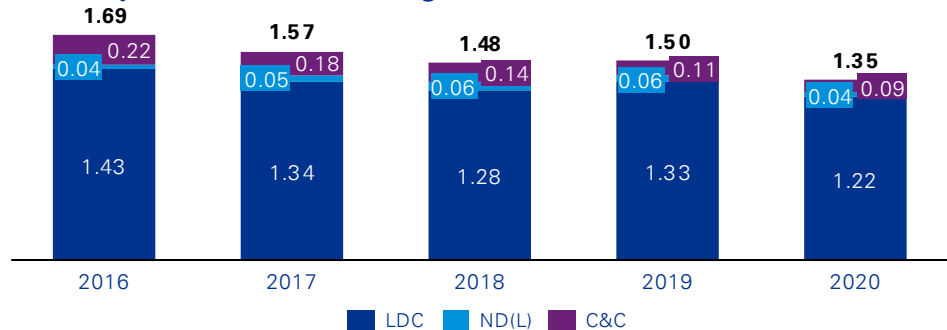
€16m

Estimated total tax revenue lost from C&C



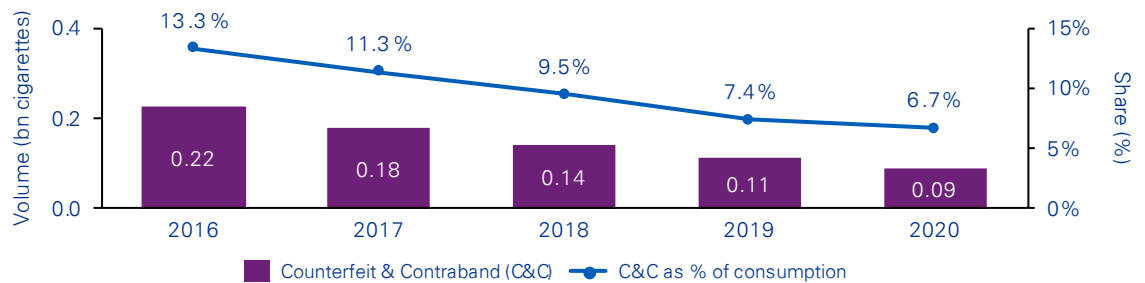
-€2m on 2019

**Total consumption – 2016-2020 (bn cigarettes)**

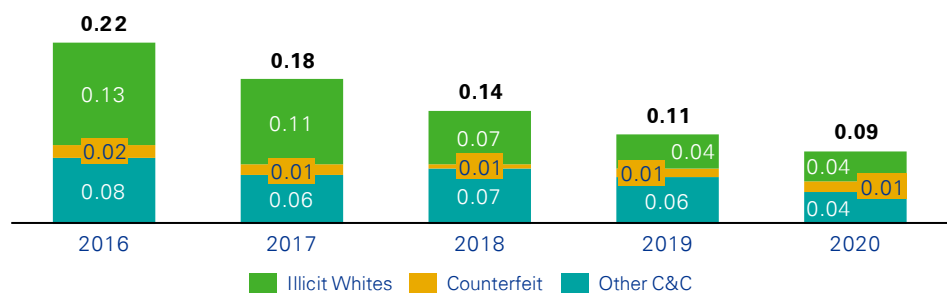


- C&C declined to 6.7% of total cigarette consumption in 2020, the lowest share observed in the reporting period
- The decline in C&C inflows was driven by lower Other C&C inflows

**Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2016-2020**



**Breakdown of C&C consumption by type – 2016-2020 (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 2020. For detailed methodology and a list of sources, refer to the methodology section



# Manufactured cigarette consumption, inflows and outflows

## Total manufactured cigarette consumption – 2016-2020

Total Estonia Consumption						
Billion cigarettes	2016	2017	2018	2019	2020	2019-20 (%)
Legal Domestic Sales (LDS)	1.74	1.65	1.54	1.56	1.46	(6%)
Outflows	(0.31)	(0.30)	(0.26)	(0.23)	(0.24)	6%
Legal Domestic Consumption (LDC)	1.43	1.34	1.28	1.33	1.22	(8%)
Non-Domestic Legal (ND(L))	0.04	0.05	0.06	0.06	0.04	(33%)
Counterfeit and Contraband (C&C)	0.22	0.18	0.14	0.11	0.09	(18%)
Total Non-Domestic	0.26	0.23	0.20	0.17	0.13	(23%)
<b>Total Consumption</b>	<b>1.69</b>	<b>1.57</b>	<b>1.48</b>	<b>1.50</b>	<b>1.35</b>	<b>(10%)</b>

- Total cigarette consumption declined by 10%, with both legal domestic sales and non-domestic inflows declining
- With the exception of Latvia, inflows from all major sources declined or remained stable in 2020
- Higher-priced Finland remains the principal outflow destination for Estonian cigarettes, accounting for 87% of the outflows from Estonia

## Total inflows by country of origin – 2016-2020

Inflows to Estonia						
Billion cigarettes	2016	2017	2018	2019	2020	
Duty Free Labelled	0.03	0.02	0.02	0.03	0.03	
Belarus	0.10	0.07	0.05	0.03	0.02	
Latvia	0.02	0.03	0.03	0.01	0.02	
Russia	0.07	0.07	0.05	0.05	0.02	
Counterfeit	0.02	0.01	0.01	0.01	0.01	
Other	0.03	0.02	0.04	0.03	0.02	
<b>Total Inflows</b>	<b>0.26</b>	<b>0.23</b>	<b>0.20</b>	<b>0.17</b>	<b>0.13</b>	

## Total outflows by country of origin – 2016-2020

Outflows from Estonia						
Billion cigarettes	2016	2017	2018	2019	2020	
Finland	(0.27)	(0.27)	(0.23)	(0.19)	(0.21)	
Other	(0.04)	(0.03)	(0.03)	(0.03)	(0.03)	
<b>Total Outflows</b>	<b>(0.31)</b>	<b>(0.30)</b>	<b>(0.26)</b>	<b>(0.23)</b>	<b>(0.24)</b>	

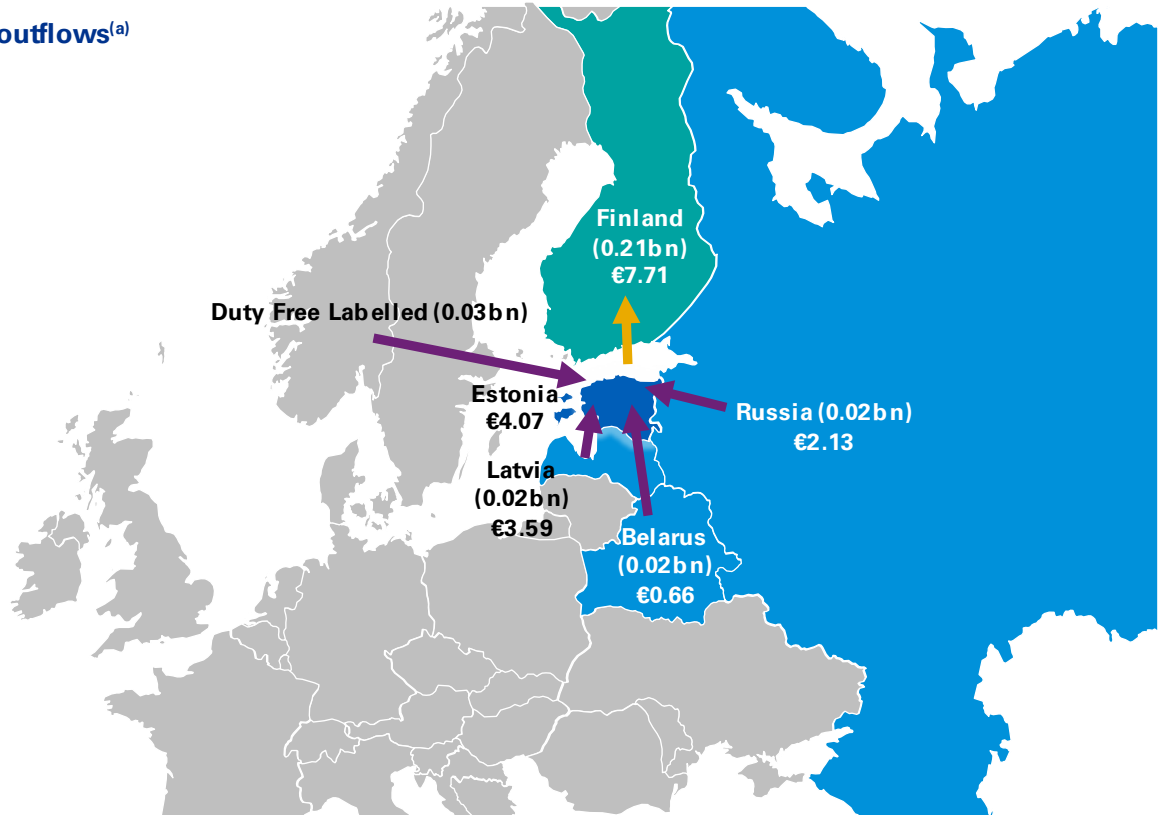
Note: Inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows. Remaining flows are included in the 'Other' category  
 Source: KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section

# Key flows and C&C consumption patterns

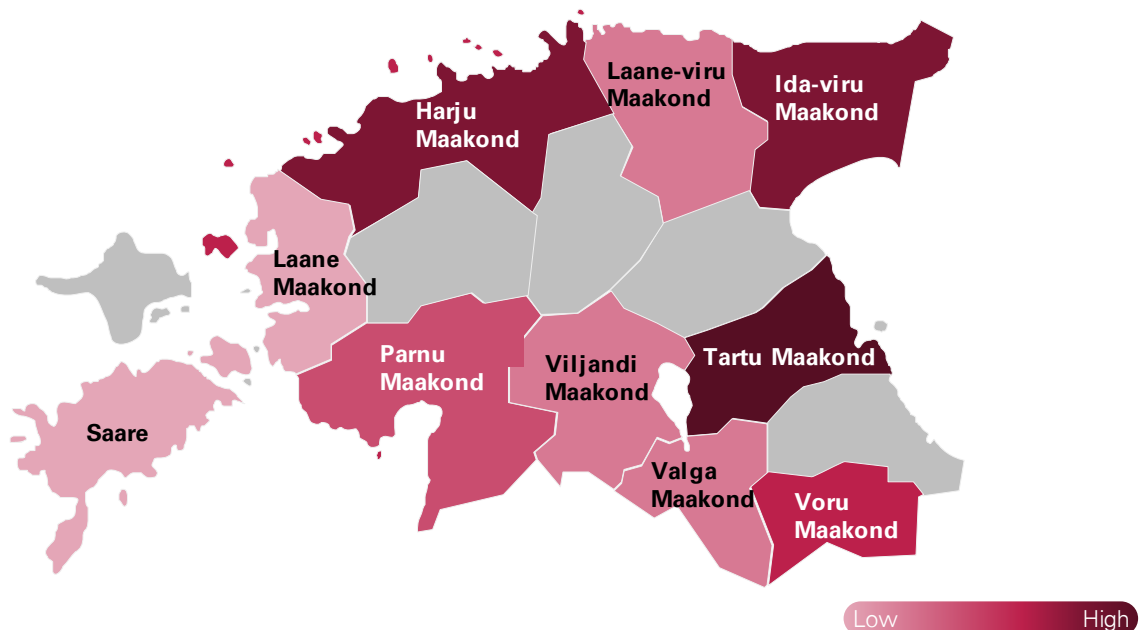
## Key inflows and outflows<sup>(a)</sup>

- Estonia
- Source
- Destination
- Inflow
- Outflow

**Label description:**  
Country (Inflow/  
Outflow Volume)  
WAP



## C&C % by region<sup>(b)(c)</sup>

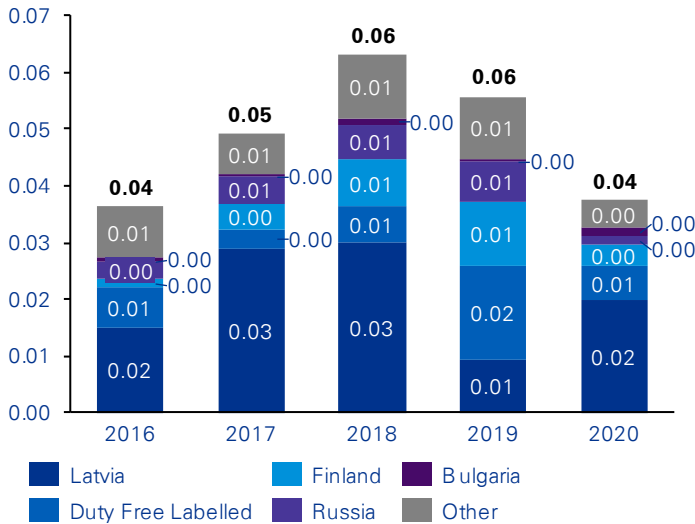


Note: (a) For countries with both inflows and outflows, only the larger of the two flows have been shown (b) C&C scale is relative to this market and is not comparable with other markets in the study, (c) Data not available for regions in grey

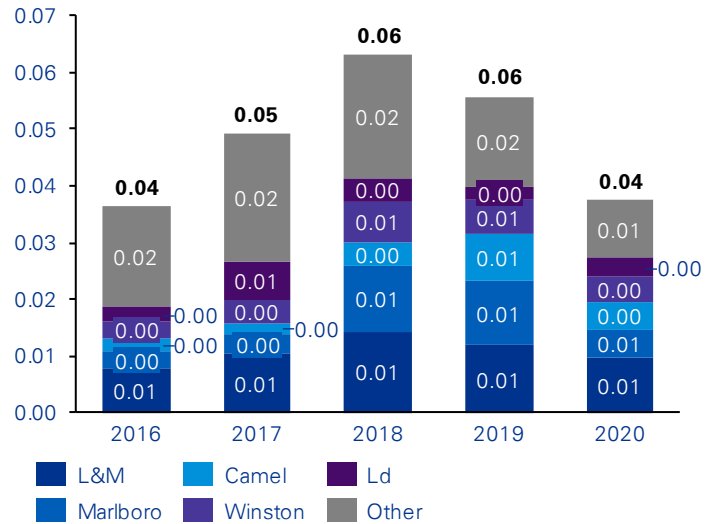
Source: (1) KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section

# ND(L) and C&C flows

**ND(L) by country of origin – 2016-2020 (bn cigarettes)**

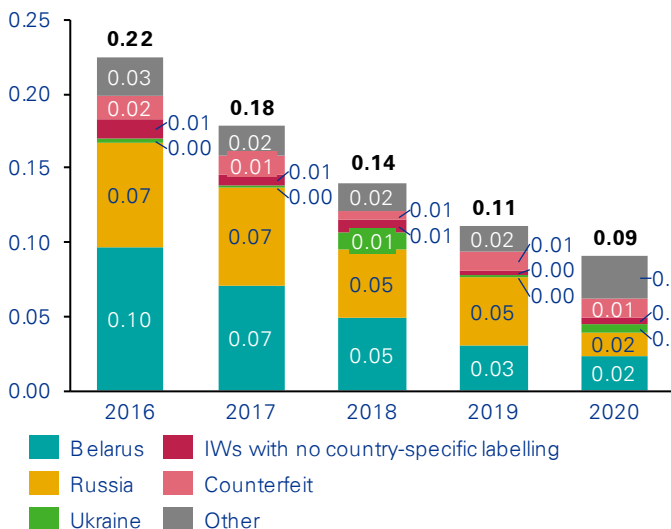


**ND(L) by brand – 2016-2020 (bn cigarettes)**

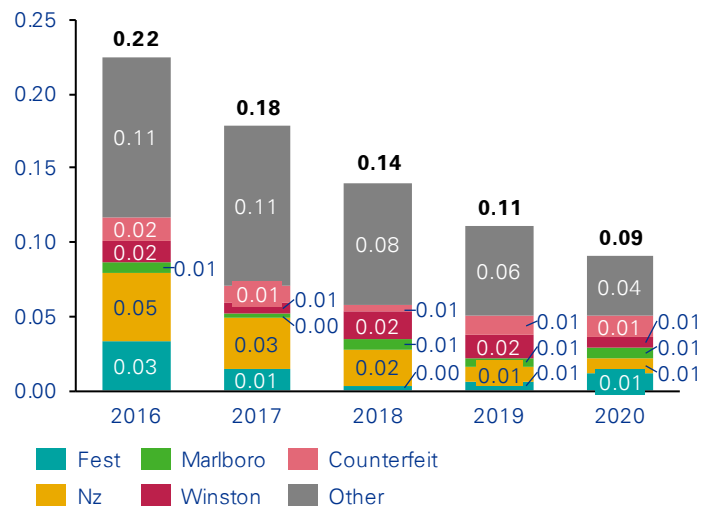


- Total legal inflows (ND(L)) declined by one third in 2020, with only legal flows from neighbouring Latvia increasing
- Despite declining volumes in 2020, the largest sources of illicit inflows remain Belarus and neighbouring Russia
- C&C levels were highest in the Tartu Maakond region in the East of the country

**C&C by country of origin – 2016-2020 (bn cigarettes)**



**C&C by brand – 2016-2020 (bn cigarettes)**



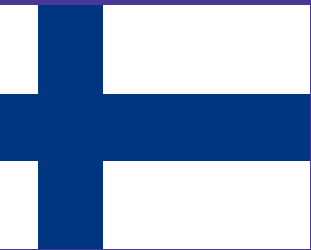
Note: (a) C&C breakdown chart only includes counterfeit volumes related to brands of manufacturers who participate in the empty pack/yellow bag surveys  
 Source: (1) KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section



**KPMG**

Finland





# C&C cigarette consumption and total consumption

4.0bn

Cigarettes consumed



-0.15bn on 2019

0.4bn

C&C cigarettes consumed



+0.04bn on 2019

9.7%

Of total consumption was C&C



+1.39%pts on 2019

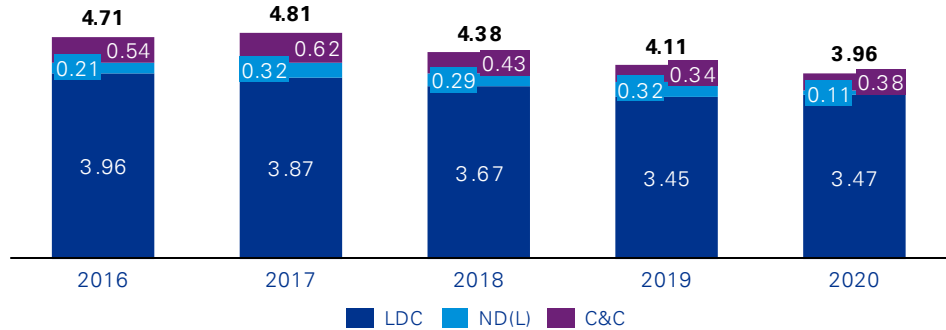
€133m

Estimated total tax revenue lost from C&C



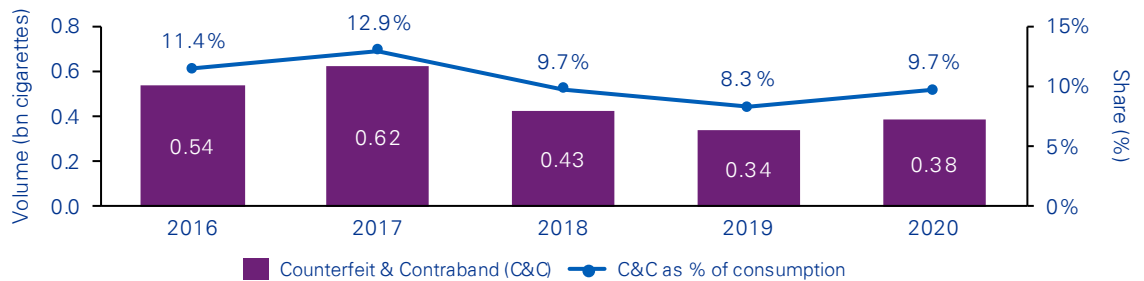
+€31m on 2019

Total consumption – 2016-2020 (bn cigarettes)

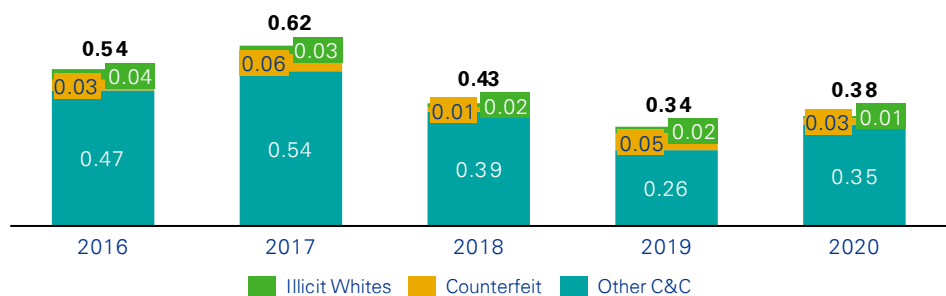


- C&C increased to 9.7% of total cigarette consumption in 2020
- Counterfeit and Illicit Whites inflow declines in 2020 were more than offset by an increase in Other C&C

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2016-2020



Breakdown of C&C consumption by type – 2016-2020 (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 2020. For detailed methodology and a list of sources, refer to the methodology section

# Manufactured cigarette consumption, inflows and outflows

## Total manufactured cigarette consumption – 2016-2020

Total Finland Consumption						
Billion cigarettes	2016	2017	2018	2019	2020	2019-20 (%)
Legal Domestic Sales (LDS)	4.00	3.91	3.72	3.48	3.48	0%
Outflows	(0.04)	(0.05)	(0.05)	(0.03)	(0.02)	(50%)
Legal Domestic Consumption (LDC)	3.96	3.87	3.67	3.45	3.47	1%
Non-Domestic Legal (ND(L))	0.21	0.32	0.29	0.32	0.11	(66%)
Counterfeit and Contraband (C&C)	0.54	0.62	0.43	0.34	0.38	13%
Total Non-Domestic	0.75	0.94	0.71	0.66	0.49	(26%)
<b>Total Consumption</b>	<b>4.71</b>	<b>4.81</b>	<b>4.38</b>	<b>4.11</b>	<b>3.96</b>	<b>(4%)</b>

- Despite increasing legal domestic consumption, consumption in Finland continued to decline (by 4%) due primarily to declining ND(L)
- Declining non-domestic flows were principally driven by reduced Duty Free inflows and reduced inflows from a number of smaller sources within the 'Other' category
  - Inflows from Estonia, where cigarette prices are over €3 per pack cheaper, increased by 8%
- Due to the relatively high price of cigarettes in Finland compared to neighbouring markets outflows are typically low, and declined further in 2020

## Total inflows by country of origin – 2016-2020

Inflows to Finland					
Billion cigarettes	2016	2017	2018	2019	2020
Estonia	0.27	0.27	0.23	0.19	0.21
Duty Free Labelled	0.22	0.25	0.21	0.21	0.13
Latvia	0.00	0.02	0.02	0.02	0.03
Counterfeit	0.03	0.06	0.01	0.05	0.03
Other	0.22	0.34	0.24	0.19	0.09
<b>Total Inflows</b>	<b>0.75</b>	<b>0.94</b>	<b>0.71</b>	<b>0.66</b>	<b>0.49</b>

## Total outflows by country of origin – 2016-2020

Outflows from Finland					
Billion cigarettes	2016	2017	2018	2019	2020
Estonia	(0.00)	(0.00)	(0.01)	(0.01)	(0.00)
Italy	0.00	0.00	(0.00)	0.00	(0.00)
Poland	0.00	0.00	0.00	0.00	(0.00)
Greece	(0.00)	0.00	0.00	0.00	(0.00)
Other	(0.04)	(0.04)	(0.04)	(0.02)	(0.00)
<b>Total Outflows</b>	<b>(0.04)</b>	<b>(0.05)</b>	<b>(0.05)</b>	<b>(0.03)</b>	<b>(0.02)</b>

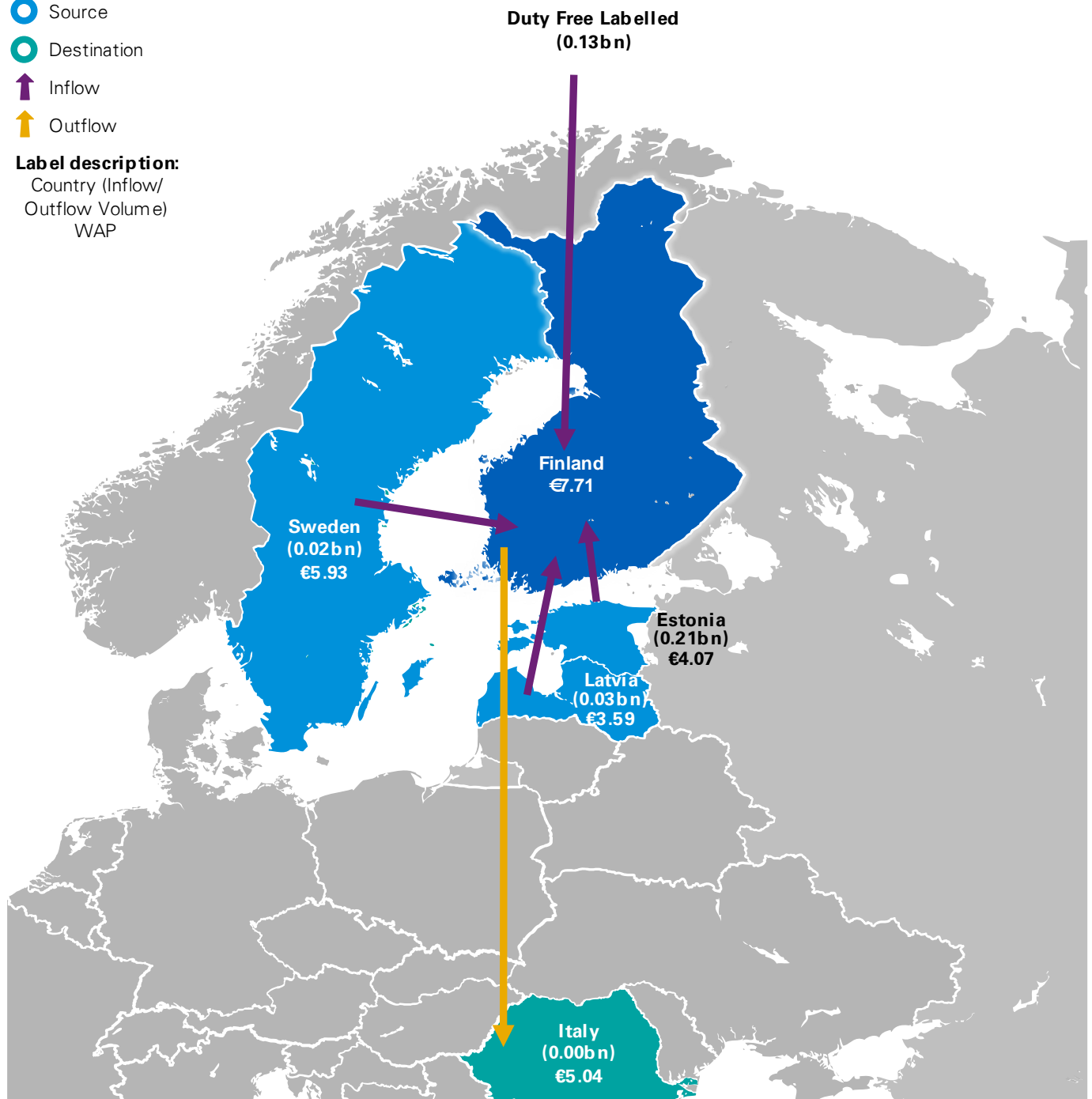
Note: Inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows. Remaining flows are included in the 'Other' category  
 Source: KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section

# Key flows

## Key inflows and outflows<sup>(a)</sup>

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

**Label description:**  
Country (Inflow/  
Outflow Volume)  
WAP

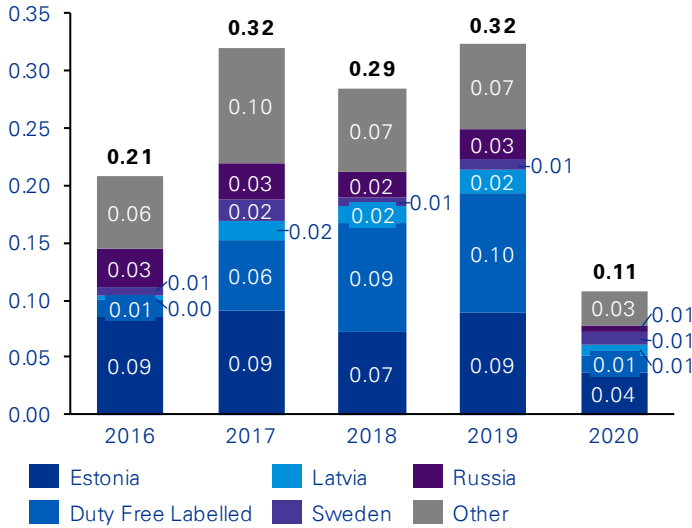


Note: (a) For countries with both inflows and outflows, only the larger of the two flows have been shown

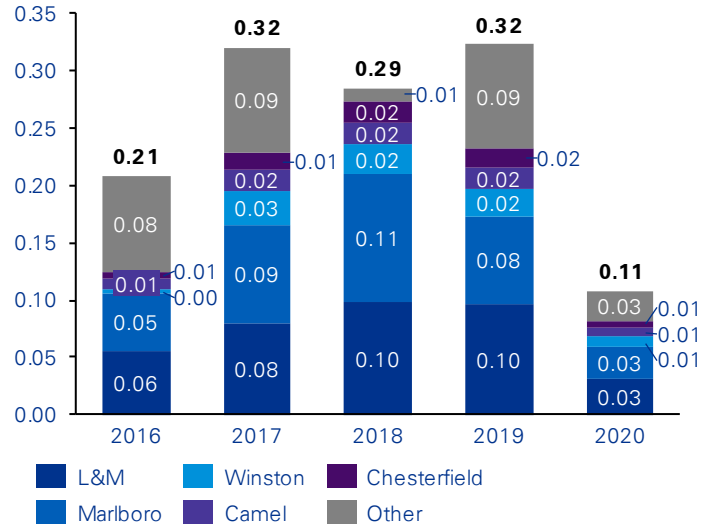
Source: (1) KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section

# ND(L) and C&C flows

**ND(L) by country of origin – 2016-2020 (bn cigarettes)**

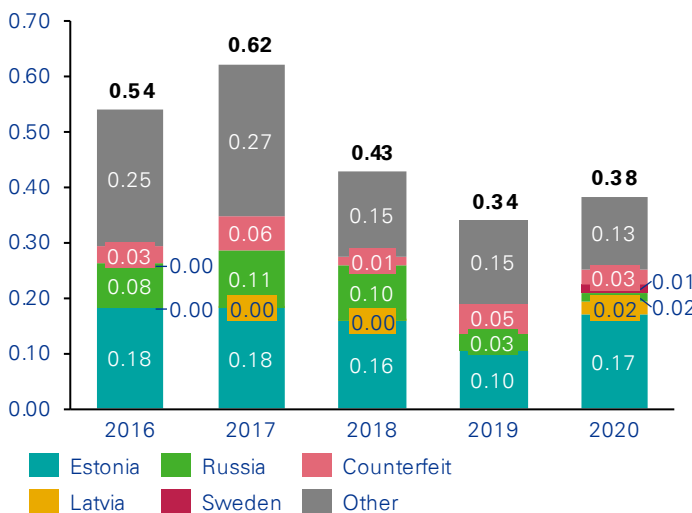


**ND(L) by brand – 2016-2020 (bn cigarettes)**

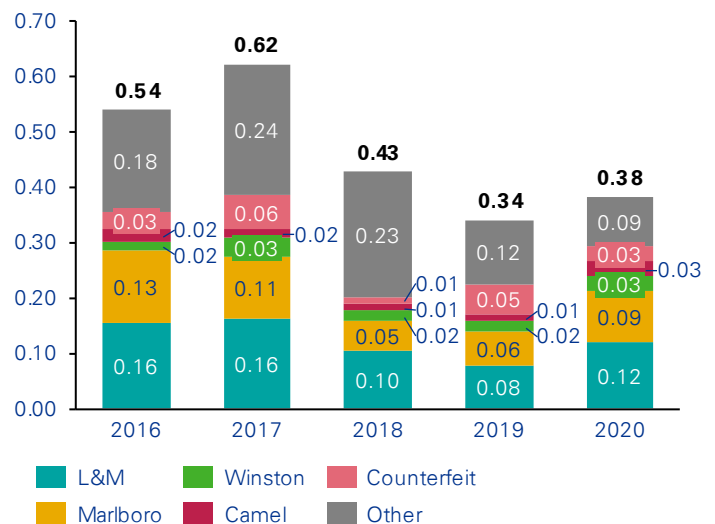


- Legal inflows (ND(L)) declined by 66% in 2020, driven by reduced travel and border closures as a result of COVID-19
- Increased inflows from Estonia were the principal source of C&C growth in 2020
  - Declining traveller volumes between Finland and Estonia in 2020 suggest that the increased non-domestic inflow is likely to be driven by C&C

**C&C by country of origin – 2016-2020 (bn cigarettes)**



**C&C by brand – 2016-2020 (bn cigarettes)**



Note: (a) C&C breakdown chart only includes counterfeit volumes related to brands of manufacturers who participate in the empty pack/yellow bag surveys  
 Source: (1) KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section





**KPMG**

France



# C&C cigarette consumption and total consumption

50.8bn

Cigarettes consumed



-1.37bn on 2019

11.7bn

C&C cigarettes consumed



+4.58bn on 2019

23.1%

Of total consumption was C&C



+9.39%pts on 2019

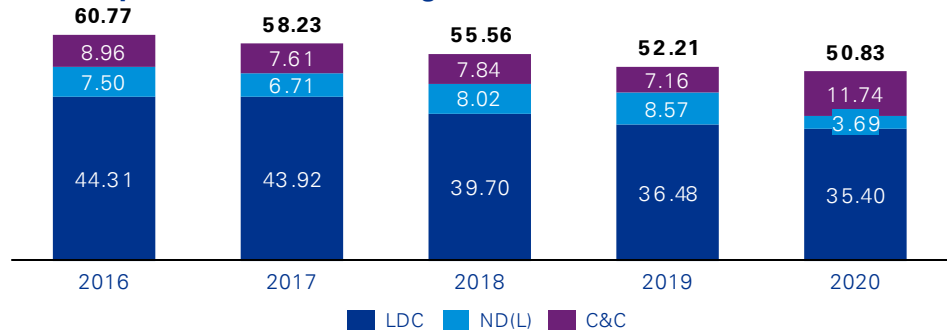
€4,292m

Estimated total tax revenue lost from C&C



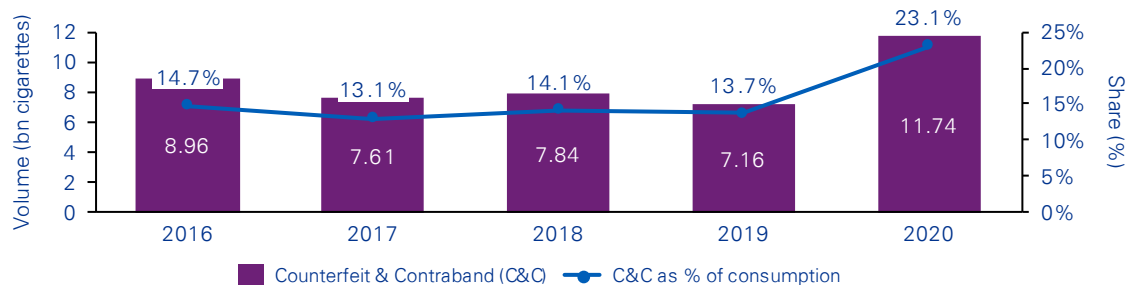
+€1,713m on 2019

**Total consumption – 2016-2020 (bn cigarettes)**

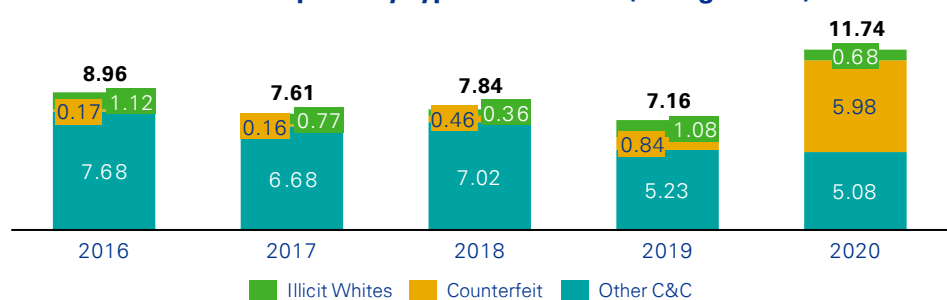


- C&C increased by 4.6bn (9.4 ppt) to reach 23.1% of total cigarette consumption in 2020; the highest in the EU
- This increase was the result of a 5.1bn or 609% increase in Counterfeit flows, marginally offset by declines in both Illicit Whites and Other C&C
- Counterfeit packs were predominantly of the brand Marlboro, the majority of which bore Duty Free labelling
- Empty pack survey results only identify Counterfeit packs of the Big 4 brands. Therefore, Counterfeit in France may be higher than the 5.98bn sticks estimated in this report

**Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2016-2020**



**Breakdown of C&C consumption by type – 2016-2020 (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) KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section

# Manufactured cigarette consumption, inflows and outflows

## Total manufactured cigarette consumption – 2016-2020

Total France Consumption						
Billion cigarettes	2016	2017	2018	2019	2020	2019-20 (%)
Legal Domestic Sales (LDS)	44.93	44.37	40.23	37.21	35.82	(4%)
Outflows	(0.61)	(0.45)	(0.53)	(0.73)	(0.42)	(42%)
Legal Domestic Consumption (LDC)	44.31	43.92	39.70	36.48	35.40	(3%)
Non-Domestic Legal (ND(L))	7.50	6.71	8.02	8.57	3.69	(57%)
Counterfeit and Contraband (C&C)	8.96	7.61	7.84	7.16	11.74	64%
Total Non-Domestic	16.46	14.31	15.86	15.73	15.44	(2%)
<b>Total Consumption</b>	<b>60.77</b>	<b>58.23</b>	<b>55.56</b>	<b>52.21</b>	<b>50.83</b>	<b>(3%)</b>

- Total cigarette consumption decreased by 3% to 50.8bn, with reduced legal domestic consumption and non-domestic consumption. Whilst cigarette consumption declined in 2020 we note that fine cut grew by 1.1bn cigarette equivalents, the first growth seen during the reporting period.<sup>(2)</sup> Wider tobacco consumption remained stable in 2020, compared to an average decline of 5.3% between 2016 to 2019
- C&C formed 76% of total inflows, an increase from 46% in 2019, with Counterfeit becoming the largest element of illicit consumption
- Non-domestic inflows from neighbouring lower-priced markets (Spain, Belgium and Luxembourg) decreased significantly due to COVID-19 related border closures and a change in the legal cigarette allowance for intra-EU travel. The legal limit was changed from 800 to 200 sticks for EU travellers from 31<sup>st</sup> July 2020
- Flows from Algeria, which has historically been a significant source of inflows to France, declined by 78% to 0.4bn cigarettes in 2020, as both air and sea travel between France and Algeria declined due to border closures and the cessation of flights from a major air carrier in late 2019<sup>(3)</sup>

## Total inflows by country of origin – 2016-2020

Inflows to France					
Billion cigarettes	2016	2017	2018	2019	2020
Counterfeit	0.16	0.16	0.46	0.84	5.98
Spain	2.63	2.84	3.61	4.08	2.77
Belgium	1.47	1.28	1.42	1.89	1.05
Luxembourg	0.84	1.09	1.15	1.26	0.72
Duty Free Labelled	2.01	1.44	1.33	1.15	0.51
Other	9.34	7.50	7.89	6.49	4.41
<b>Total Inflows</b>	<b>16.46</b>	<b>14.31</b>	<b>15.86</b>	<b>15.73</b>	<b>15.44</b>

## Total outflows by country of origin – 2016-2020

Outflows from France					
Billion cigarettes	2016	2017	2018	2019	2020
Netherlands	(0.08)	(0.15)	(0.10)	(0.08)	(0.16)
Belgium	(0.03)	(0.03)	(0.06)	(0.13)	(0.07)
Switzerland	(0.28)	(0.07)	(0.07)	(0.29)	(0.06)
Germany	(0.03)	(0.06)	(0.06)	(0.08)	(0.06)
Other	(0.19)	(0.15)	(0.25)	(0.15)	(0.07)
<b>Total Outflows</b>	<b>(0.61)</b>	<b>(0.45)</b>	<b>(0.53)</b>	<b>(0.73)</b>	<b>(0.42)</b>

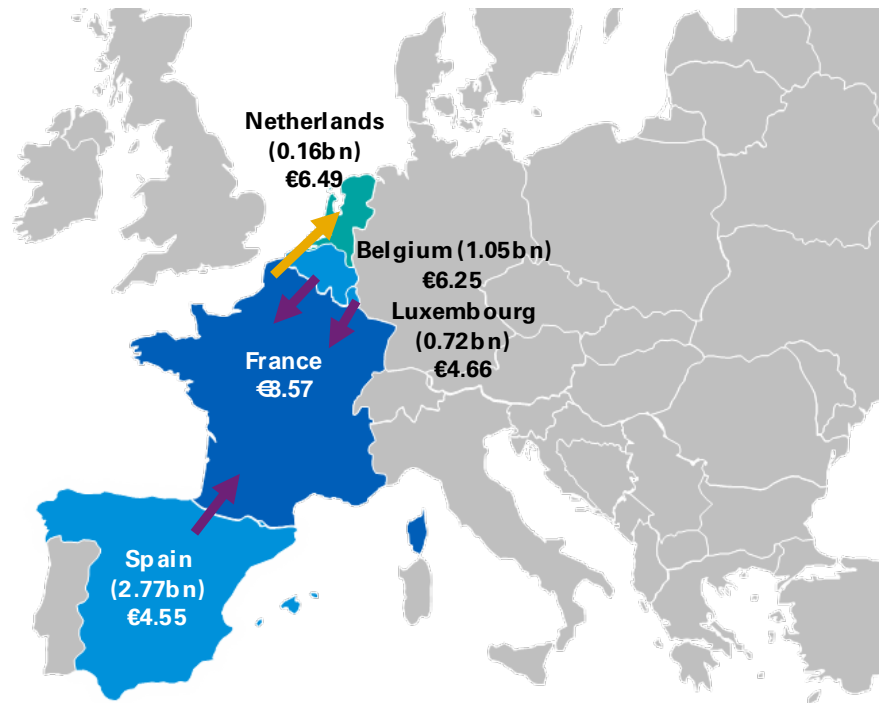
Note: Inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows. Remaining flows are included in the 'Other' category  
Sources: (1) KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section, (2) Euromonitor as at June 2021, (3) [Volotea Swoops Into Algerian Market Gap Left By Air Algérie Collapse, March 2021](#)

# Key flows and C&C consumption patterns

## Key inflows and outflows<sup>(a)</sup>

- France
- Source
- Destination
- Inflow
- Outflow

**Label description:**  
Country (Inflow/  
Outflow Volume)  
WAP



## C&C % by region<sup>(b)(c)</sup>



Note: (a) For countries with both inflows and outflows, only the larger of the two flows have been shown (b) C&C scale is relative to this market and is not comparable with other markets in the study, (c) Data not available for regions in grey

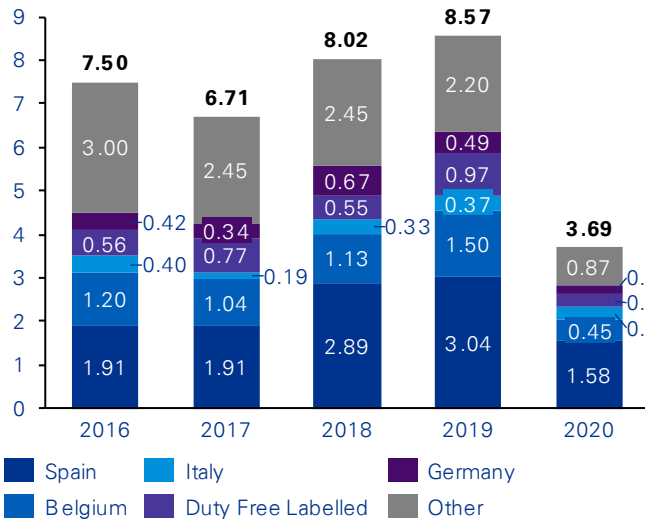
Source: (1) KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section



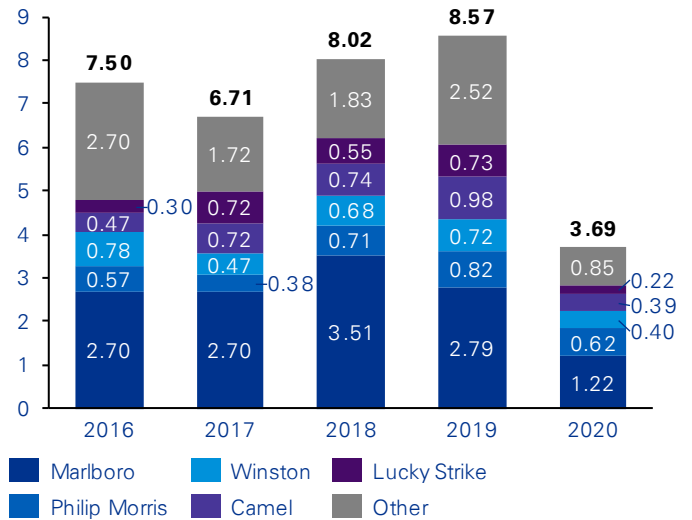
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# ND(L) and C&C flows

**ND(L) by country of origin – 2016-2020 (bn cigarettes)**

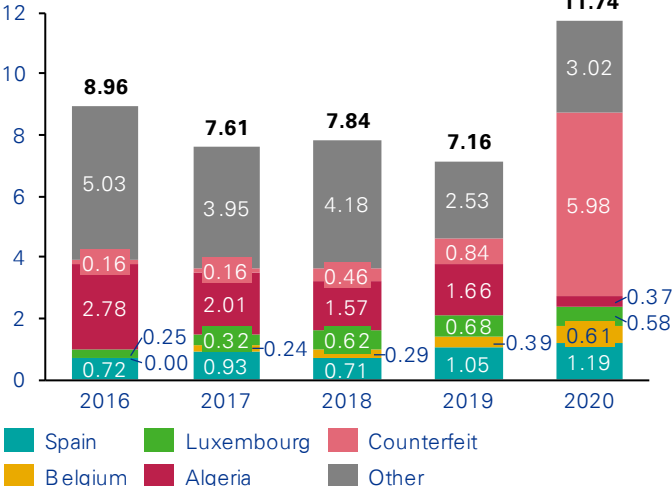


**ND(L) by brand – 2016-2020 (bn cigarettes)**

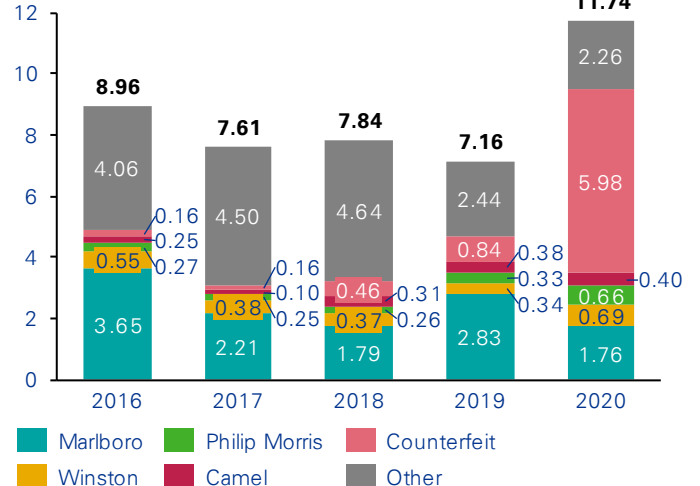


- Legal inflows (ND(L)) declined by 57% in 2020, with inflows from Spain, Belgium and Duty Free accounting for most of the reduction, alongside decreased inflows from a number of smaller markets within 'Other'
- Increasing C&C in 2020 was primarily driven by increased Counterfeit flows, which represented 11.8% of the total cigarettes consumed in 2020
  - Counterfeit volumes increased in each of the four empty pack collections in 2020, rising from 3.4% of cigarette consumption in the first collection to 20.9% in the fourth
  - 3.1% of counterfeit identified in 2020 was in plain packaging and 71% bore fake Duty Free packaging
  - The highest concentration of Counterfeit was in the Île-De-France and Auvergne-Rhône-Alpes regions
- C&C share of consumption was highest in Languedoc-Roussillon-Midi-Pyrénées in the South of France

**C&C by country of origin – 2016-2020 (bn cigarettes)**



**C&C by brand – 2016-2020 (bn cigarettes)**



Note: (a) C&C breakdown chart only includes counterfeit volumes related to brands of manufacturers who participate in the empty pack/yellow bag surveys  
 Source: (1) KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section



# Germany





# C&C cigarette consumption and total consumption

84.8bn

Cigarettes consumed



3.6bn

C&C cigarettes consumed



4.3%

Of total consumption was C&C

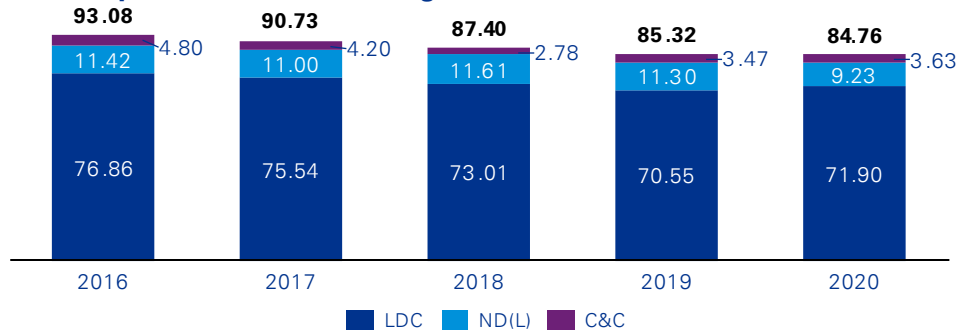


€764m

Estimated total tax revenue lost from C&C

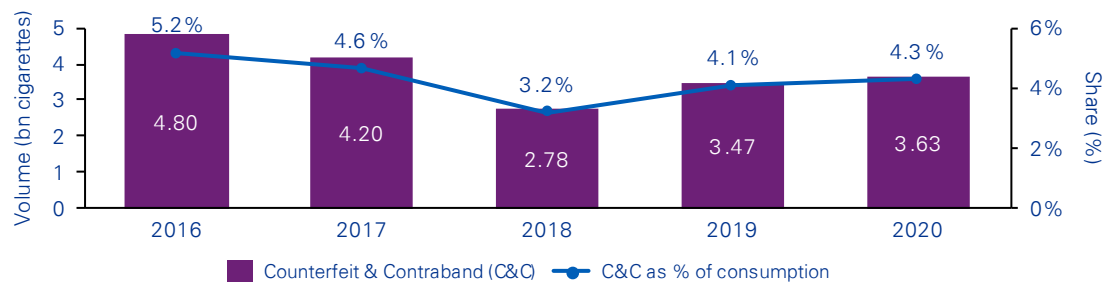


**Total consumption – 2016-2020 (bn cigarettes)**

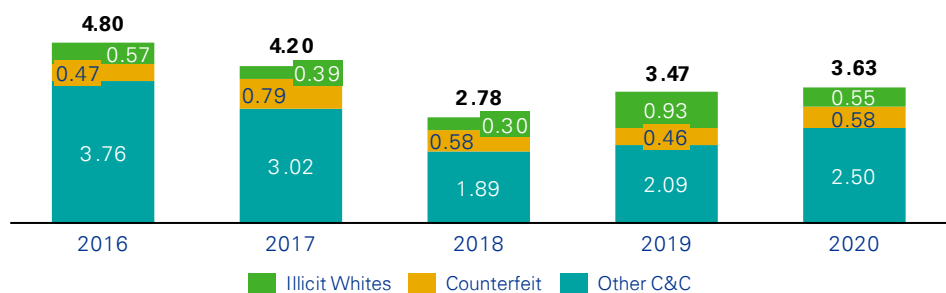


- C&C was 4.3% of total cigarette consumption in 2020, a small increase of 0.2ppt on 2019
- A decline in Illicit Whites inflows to 0.55bn in 2020 was offset by an increase in Other C&C, contributing to the overall increase in C&C

**Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2016-2020**



**Breakdown of C&C consumption by type – 2016-2020 (bn cigarettes)**



Notes: (a) 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, (b) In 2020, data for weighted Counterfeit packs was available for the first time in this study (historically, it was unweighted data for Counterfeit), resulting in a more precise Counterfeit estimate for 2020

Source: KPMG EU Flows Calculation 2020. 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 – 2016-2020

Total Germany Consumption						
Billion cigarettes	2016	2017	2018	2019	2020	2019-20 (%)
Legal Domestic Sales (LDS)	78.13	76.74	74.76	72.35	72.96	1%
Outflows	(1.27)	(1.20)	(1.75)	(1.80)	(1.06)	(41%)
Legal Domestic Consumption (LDC)	76.86	75.54	73.01	70.55	71.90	2%
Non-Domestic Legal (ND(L))	11.42	11.00	11.61	11.30	9.23	(18%)
Counterfeit and Contraband (C&C)	4.80	4.20	2.78	3.47	3.63	5%
Total Non-Domestic	16.22	15.19	14.39	14.77	12.86	(13%)
<b>Total Consumption</b>	<b>93.08</b>	<b>90.73</b>	<b>87.40</b>	<b>85.32</b>	<b>84.76</b>	<b>(1%)</b>

- Total consumption declined by 1%, with an increase in legal domestic consumption more than offset by declining non-domestic inflows. The main driver of this reduction in inflows was a 18% decline in Legal inflows (ND(L))
- The main sources of inflows into Germany were the neighbouring markets of Poland and the Czech Republic, which accounted for 65% of total inflows
- Outflows from Germany declined by 41%, with the largest reductions in outflows being to the neighbouring markets of France and the Netherlands

## Total inflows by country of origin – 2016-2020

Inflows to Germany					
Billion cigarettes	2016	2017	2018	2019	2020
Poland	4.57	4.46	4.20	4.94	4.66
Czech Republic	5.45	5.00	4.68	4.09	3.68
Duty Free Labelled	1.71	1.22	1.29	1.44	0.86
Counterfeit	0.47	0.79	0.58	0.46	0.58
Luxembourg	0.48	0.34	0.33	0.35	0.43
Other	3.55	3.39	3.30	3.50	2.64
<b>Total Inflows</b>	<b>16.22</b>	<b>15.19</b>	<b>14.39</b>	<b>14.77</b>	<b>12.86</b>

## Total outflows by country of origin – 2016-2020

Outflows from Germany					
Billion cigarettes	2016	2017	2018	2019	2020
France	(0.45)	(0.34)	(0.67)	(0.71)	(0.33)
Netherlands	(0.20)	(0.26)	(0.35)	(0.38)	(0.22)
Switzerland	(0.22)	(0.21)	(0.19)	(0.21)	(0.16)
Poland	(0.05)	(0.05)	(0.04)	(0.05)	(0.09)
Austria	(0.06)	(0.05)	(0.07)	(0.08)	(0.05)
Other	(0.29)	(0.30)	(0.43)	(0.36)	(0.21)
<b>Total Outflows</b>	<b>(1.27)</b>	<b>(1.20)</b>	<b>(1.75)</b>	<b>(1.80)</b>	<b>(1.06)</b>

Note: (a) Inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows. Remaining flows are included in the 'Other' category (b) In 2020, data for weighted Counterfeit packs was available for the first time in this study (historically, it was unweighted data for Counterfeit), resulting in a more precise Counterfeit estimate for 2020

Source: KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section  
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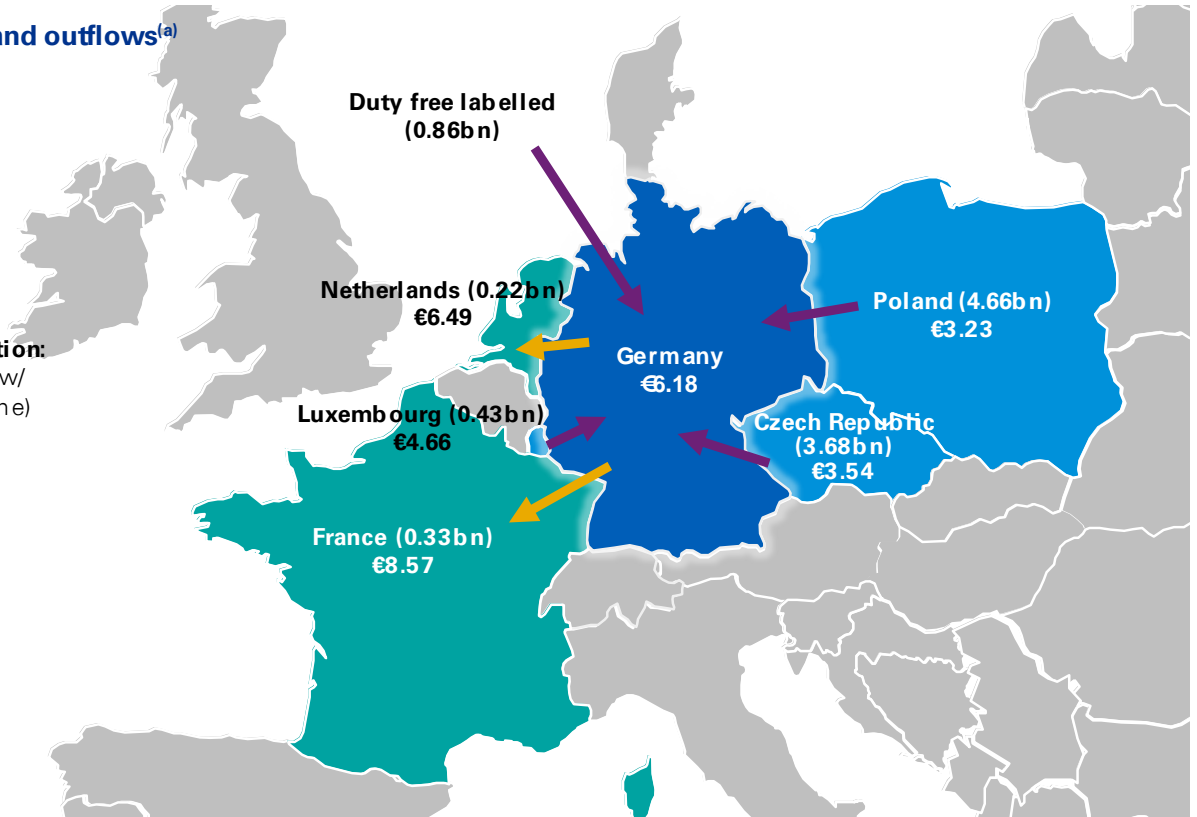


# Key flows and C&C consumption patterns

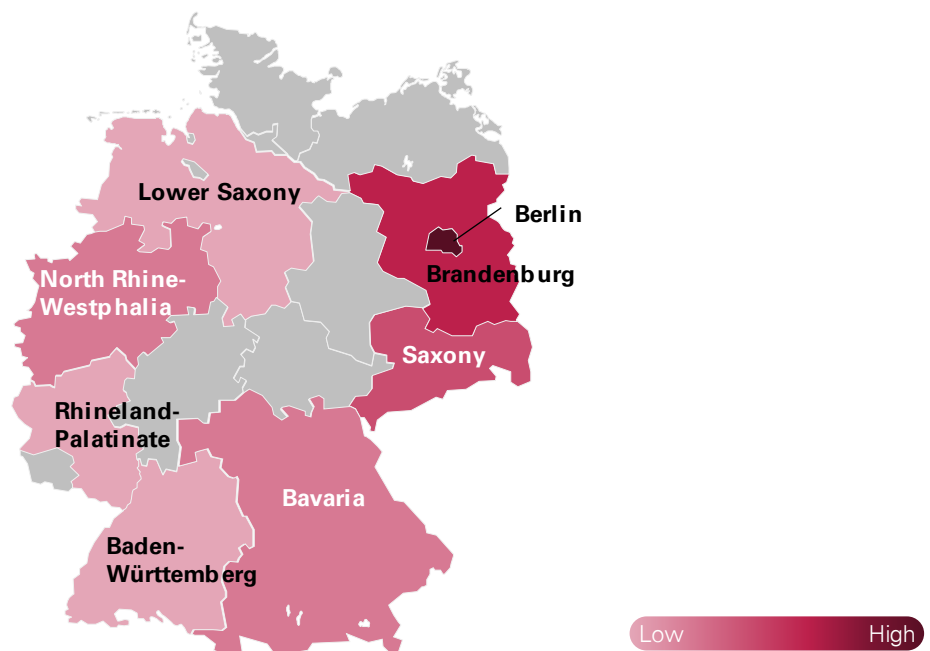
## Key inflows and outflows<sup>(a)</sup>

- Germany
- Source
- Destination
- ↑ Inflow
- ↑ Outflow

**Label description:**  
Country (Inflow/  
Outflow Volume)  
WAP



## C&C % by region<sup>(b)(c)</sup>

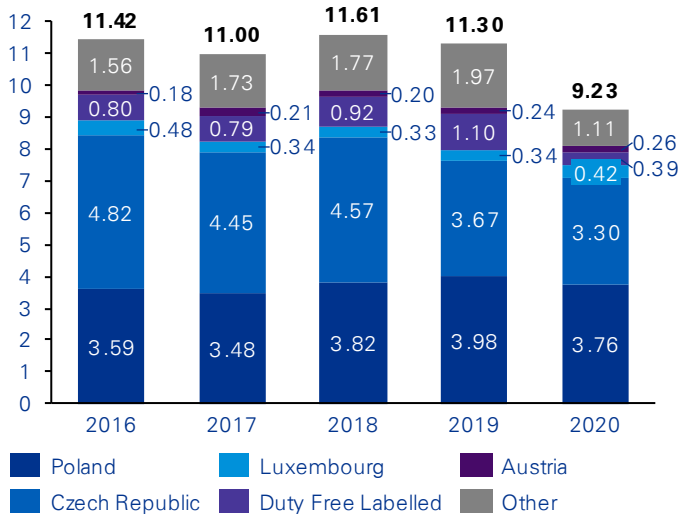


Note: (a) For countries with both inflows and outflows, only the larger of the two flows have been shown (b) C&C scale is relative to this market and is not comparable with other markets in the study, (c) Data not available for regions in grey

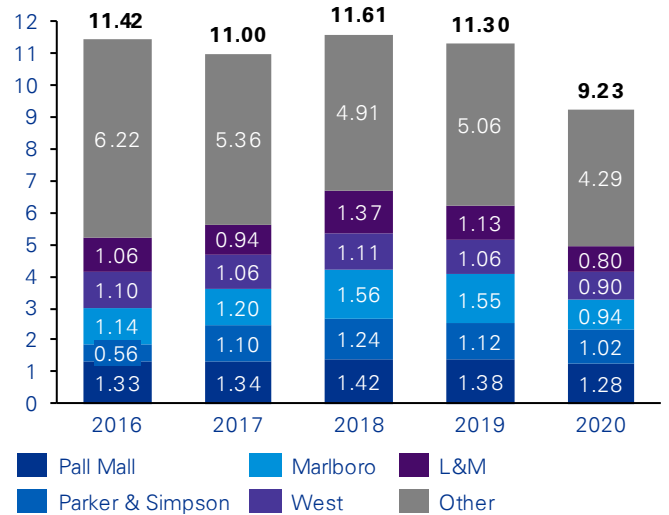
Source: (1) KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section

# ND(L) and C&C flows

**ND(L) by country of origin – 2016-2020 (bn cigarettes)**



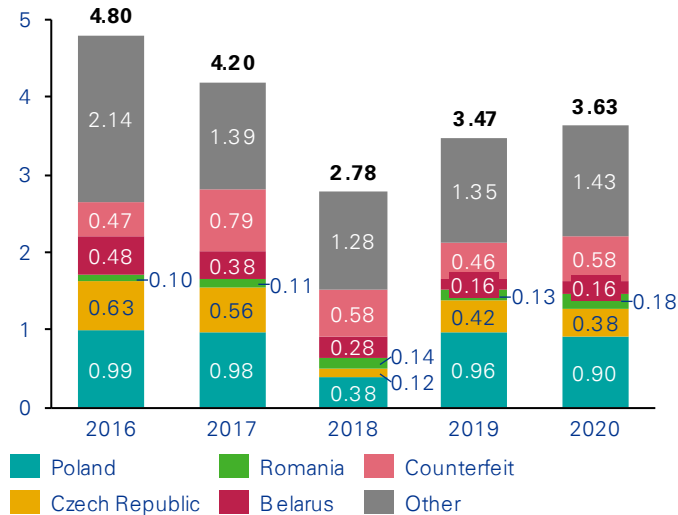
**ND(L) by brand – 2016-2020 (bn cigarettes)**



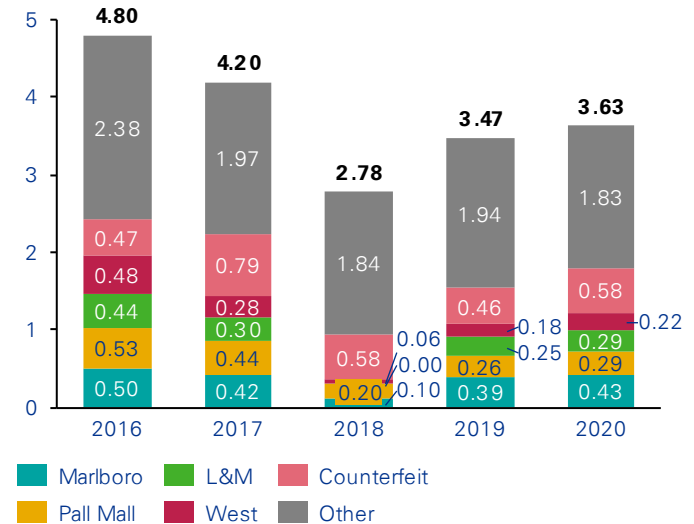
— Non-domestic legal (ND(L)) flows declined in 2020 as a result of border closures and travel restrictions. The main sources of ND(L) inflows remain Poland and the Czech Republic, with the majority of the flows considered legal due to high numbers of cross-border workers who were largely able to travel despite COVID related border closures, and high levels of cross-border shopping when restrictions were lifted

— C&C shares were highest in eastern Germany, with the highest share observed in Berlin

**C&C by country of origin – 2016-2020 (bn cigarettes)**



**C&C by brand – 2016-2020 (bn cigarettes)**



Note: (a) in 2020, data for weighted Counterfeit packs was available for the first time in this study (historically, it was unweighted data for Counterfeit), resulting in a more precise Counterfeit estimate for 2020 (b) C&C breakdown chart only includes counterfeit volumes related to brands of manufacturers who participate in the empty pack/yellow bag surveys

Source: (1) KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section



**KPMG**

# Greece





# C&C cigarette consumption and total consumption

13.8bn

Cigarettes consumed



-1.57bn on 2019

3.1bn

C&C cigarettes consumed



-0.35bn on 2019

22.4%

Of total consumption was C&C



+0.03%pts on 2019

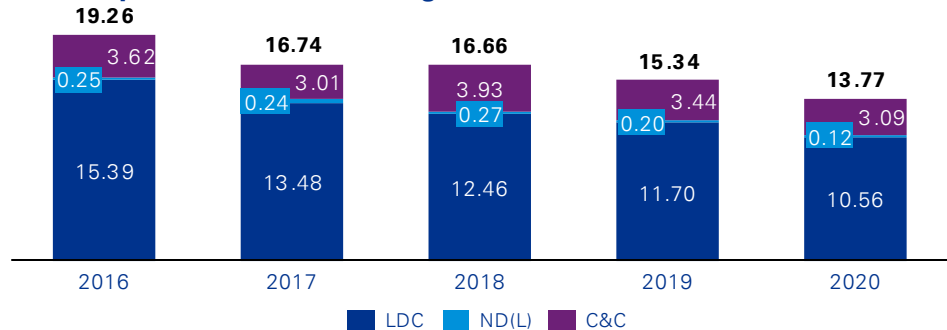
€551m

Estimated total tax revenue lost from C&C



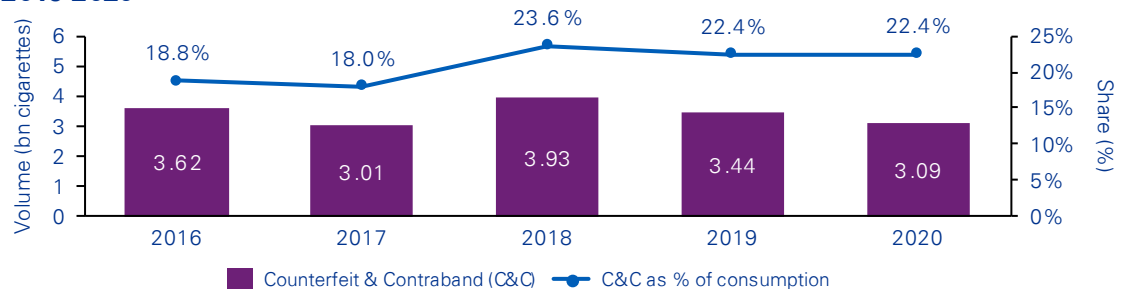
-€59m on 2019

**Total consumption – 2016-2020 (bn cigarettes)**

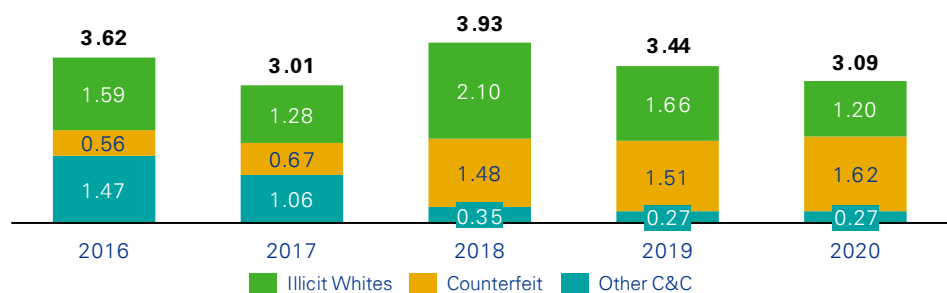


- C&C declined to 3.09bn in 2020, remaining stable at 22.4% of cigarette consumption, the second highest level of C&C incidence in this study
- Over 90% of C&C in 2020 was Counterfeit or Illicit Whites. While Counterfeit volume reached the highest level recorded in the reporting period, IW volume was at its lowest
- Greece recorded the second largest Counterfeit volume in the EU, behind France

**Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2016-2020**



**Breakdown of C&C consumption by type – 2016-2020 (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 2020. For detailed methodology and a list of sources, refer to the methodology section

# Manufactured cigarette consumption, inflows and outflows

## Total manufactured cigarette consumption – 2016-2020

Total Greece Consumption						
Billion cigarettes	2016	2017	2018	2019	2020	2019-20 (%)
Legal Domestic Sales (LDS)	15.77	13.82	12.80	12.14	10.94	(10%)
Outflows	(0.38)	(0.34)	(0.34)	(0.44)	(0.38)	(13%)
Legal Domestic Consumption (LDC)	15.39	13.48	12.46	11.70	10.56	(10%)
Non-Domestic Legal (ND(L))	0.25	0.24	0.27	0.20	0.12	(40%)
Counterfeit and Contraband (C&C)	3.62	3.01	3.93	3.44	3.09	(10%)
Total Non-Domestic	3.87	3.25	4.20	3.64	3.21	(12%)
<b>Total Consumption</b>	<b>19.26</b>	<b>16.74</b>	<b>16.66</b>	<b>15.34</b>	<b>13.77</b>	<b>(10%)</b>

- Total cigarette consumption decreased by 10%, driven by declining legal domestic sales and decreasing non-domestic consumption
- Inflows to Greece largely comprised of Counterfeit and Illicit Whites
- Outflows declined by 13%.
  - Outflows from Greece were mainly to countries for which Greece is a popular holiday destination, such as Germany, Italy and France

## Total inflows by country of origin – 2016-2020

Inflows to Greece					
Billion cigarettes	2016	2017	2018	2019	2020
Counterfeit	0.56	0.67	1.48	1.51	1.62
IWs with no country-specific labelling	1.54	1.27	2.10	1.61	1.15
Other	1.77	1.31	0.62	0.52	0.45
<b>Total Inflows</b>	<b>3.87</b>	<b>3.25</b>	<b>4.20</b>	<b>3.64</b>	<b>3.21</b>

## Total outflows by country of origin – 2016-2020

Outflows from Greece					
Billion cigarettes	2016	2017	2018	2019	2020
Germany	(0.11)	(0.12)	(0.13)	(0.15)	(0.12)
Italy	(0.01)	(0.01)	(0.05)	(0.02)	(0.07)
France	(0.09)	(0.04)	(0.06)	(0.05)	(0.04)
Netherlands	(0.01)	(0.01)	(0.02)	(0.02)	(0.03)
UK	(0.08)	(0.08)	(0.02)	(0.07)	(0.02)
Other	(0.08)	(0.07)	(0.07)	(0.12)	(0.09)
<b>Total Outflows</b>	<b>(0.38)</b>	<b>(0.34)</b>	<b>(0.34)</b>	<b>(0.44)</b>	<b>(0.38)</b>

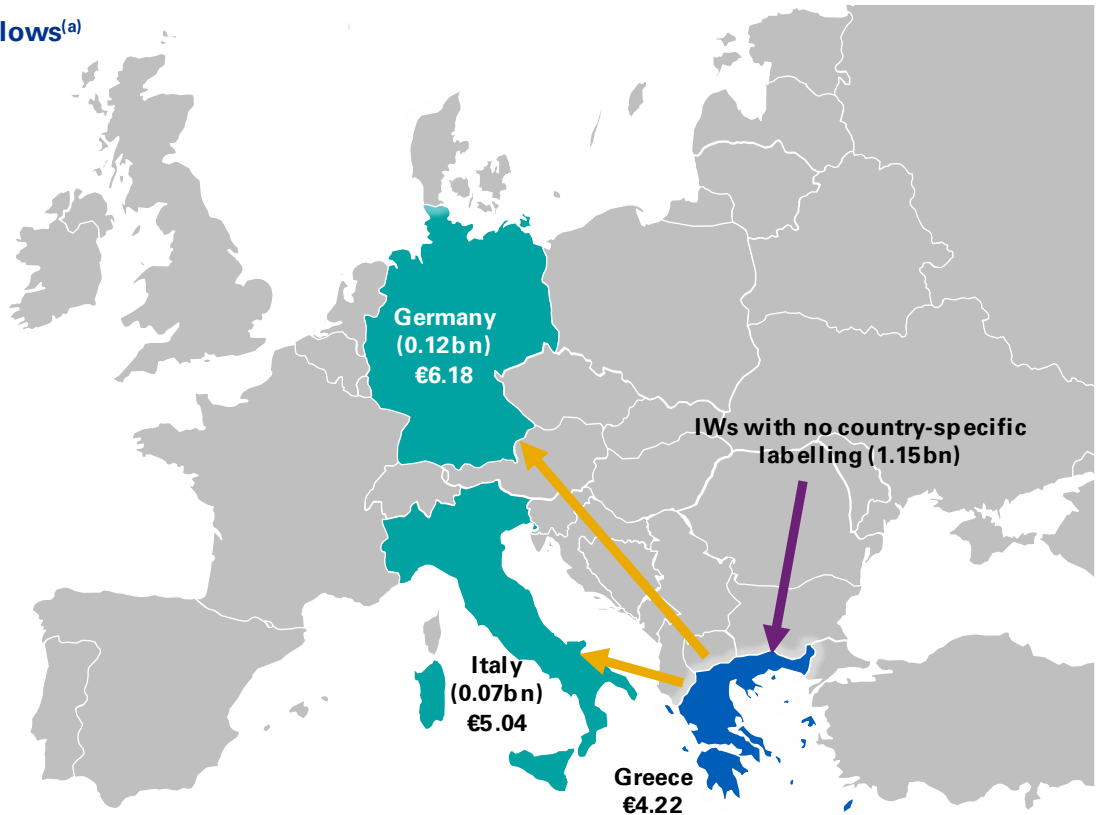
Note: Inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows. Remaining flows are included in the 'Other' category  
 Source: KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section

# Key flows and C&C consumption patterns

## Key inflows and outflows<sup>(a)</sup>

- Greece
- Source
- Destination
- Inflow
- Outflow

**Label description:**  
Country (Inflow/  
Outflow Volume)  
WAP



## C&C % by region<sup>(b)(c)</sup>

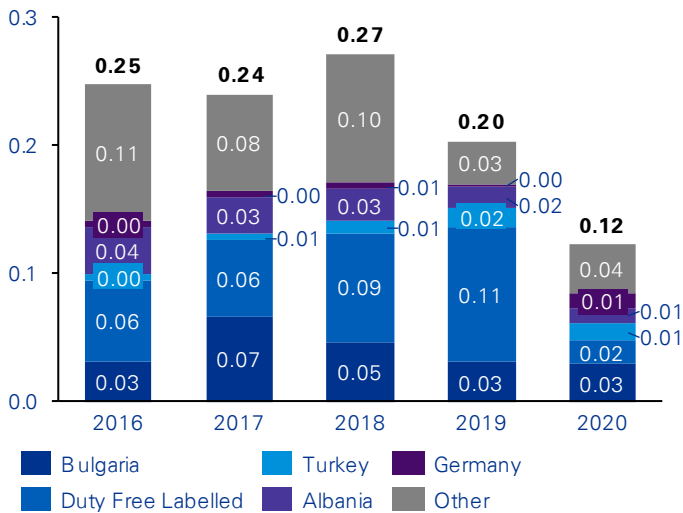


Note: (a) For countries with both inflows and outflows, only the larger of the two flows have been shown (b) C&C scale is relative to this market and is not comparable with other markets in the study, (c) Data not available for regions in grey

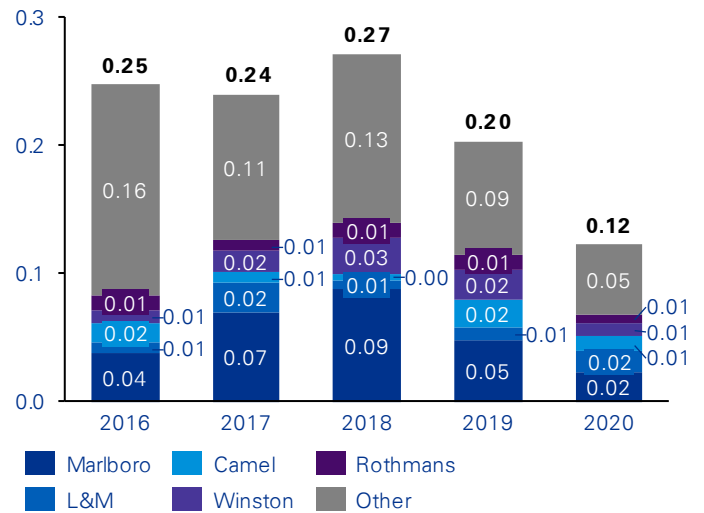
Source: (1) KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section

# ND(L) and C&C flows

**ND(L) by country of origin – 2016-2020 (bn cigarettes)**

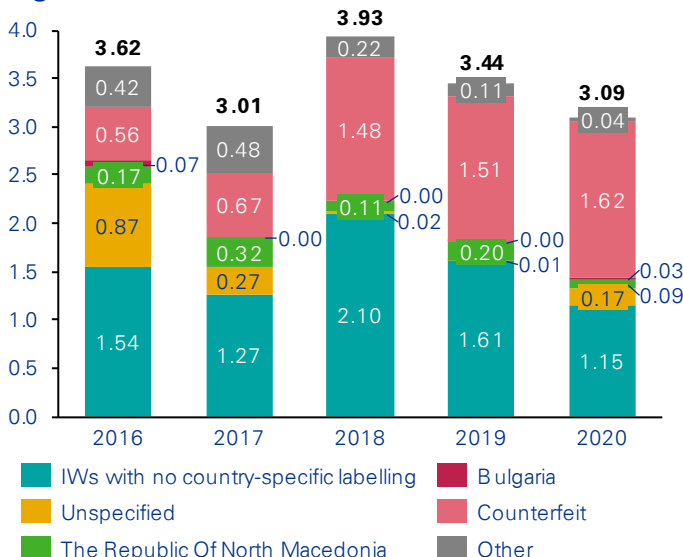


**ND(L) by brand – 2016-2020 (bn cigarettes)**

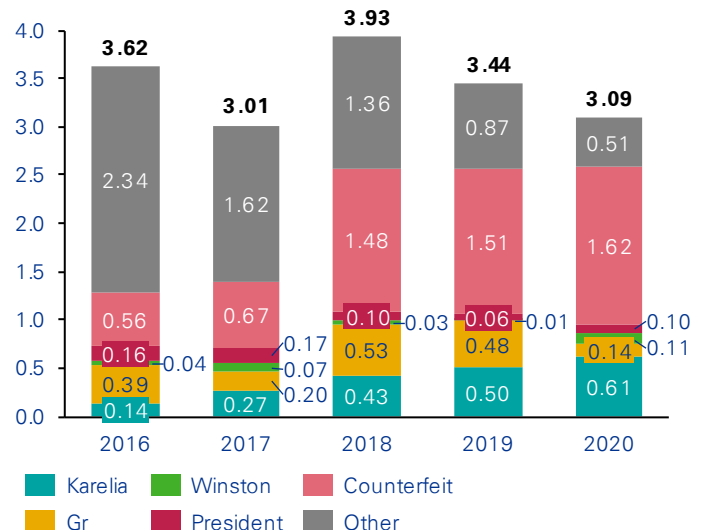


- ND(L) declined by 40% in 2020 against a backdrop of COVID-19 related travel restrictions with Duty Free representing the largest decline (83%),
- Excluding Counterfeit, which forms 52% of C&C, Karelia was the most prevalent C&C brand, accounting for 20% of total C&C in 2020

**C&C by country of origin – 2016-2020 (bn cigarettes)**



**C&C by brand – 2016-2020 (bn cigarettes)**



Note: (a) C&C breakdown chart only includes counterfeit volumes related to brands of manufacturers who participate in the empty pack/yellow bag surveys

Sources: (1) KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section



# Hungary







# C&C cigarette consumption and total consumption

7.9bn

Cigarettes consumed



-0.64bn on 2019

0.3bn

C&C cigarettes consumed



-0.30bn on 2019

4.1%

Of total consumption was C&C



-3.18%pts on 2019

€48m

(Ft17,335m)<sup>(1)</sup>

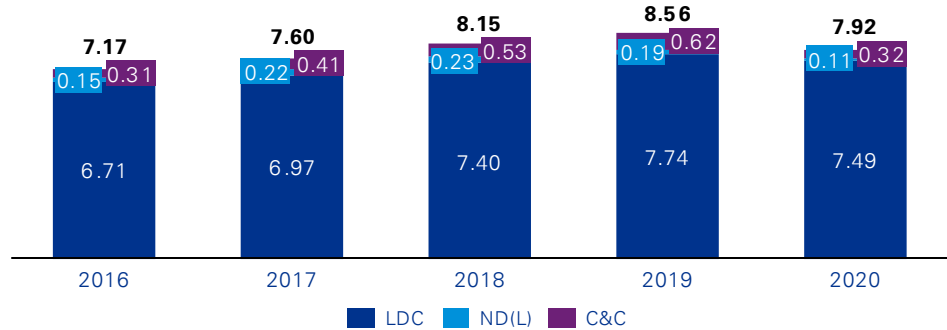
Estimated total tax revenue lost from C&C



-€36m on 2019

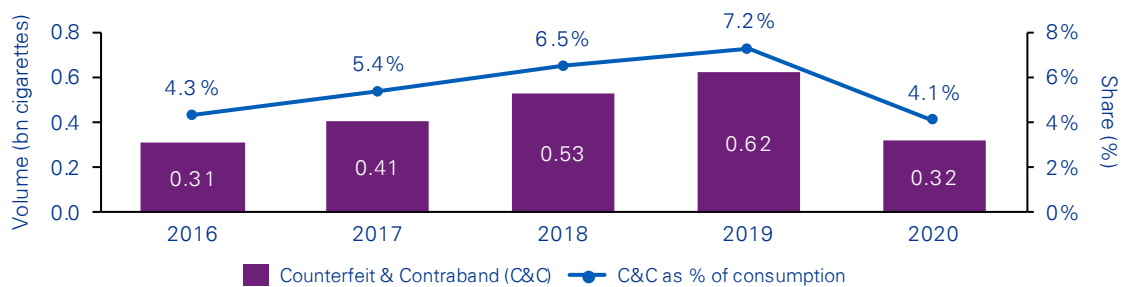


Total consumption – 2016-2020 (bn cigarettes)

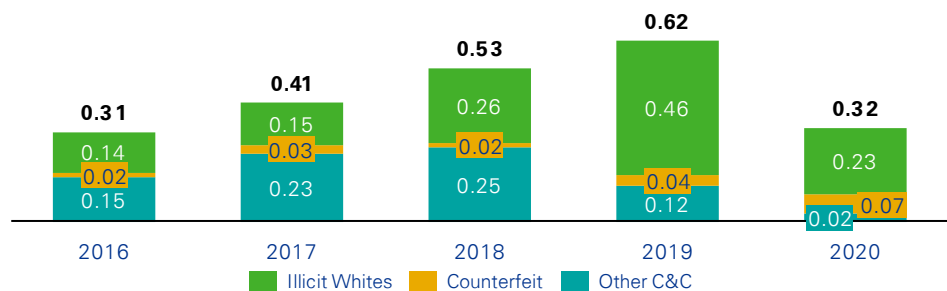


- C&C decreased to 4.1% of total consumption in 2020, reversing a longer-term increasing trend
- C&C flows declined by 0.3bn cigarettes, principally driven by a decline in Illicit Whites and Other C&C but partly offset by a small increase in Counterfeit

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2016-2020



Breakdown of C&C consumption by type – 2016-2020 (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

Sources: (1) EUR 1 = Ft 362.32, InforEuro, European Commission, December 2020; (2) KPMG EU Flows Calculation 2020. 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 – 2016-2020

Total Hungarian Consumption						
Billion cigarettes	2016	2017	2018	2019	2020	2019-20 (%)
Legal Domestic Sales (LDS)	7.44	7.59	7.99	8.21	7.73	(6%)
Outflows	(0.73)	(0.62)	(0.59)	(0.46)	(0.25)	(47%)
Legal Domestic Consumption (LDC)	6.71	6.97	7.40	7.74	7.49	(3%)
Non-Domestic Legal (ND(L))	0.15	0.22	0.23	0.19	0.11	(44%)
Counterfeit and Contraband (C&C)	0.31	0.41	0.53	0.62	0.32	(48%)
Total Non-Domestic	0.46	0.63	0.76	0.81	0.43	(47%)
<b>Total Consumption</b>	<b>7.17</b>	<b>7.60</b>	<b>8.15</b>	<b>8.56</b>	<b>7.92</b>	<b>(7%)</b>

- Total consumption decreased by 7% in 2020, reversing the growth trend seen since 2016 and primarily driven by lower non-domestic inflows against a backdrop of border closures and travel disruption related to COVID-19
- Illicit Whites with no country-specific labelling declined in 2020 but remained the largest source of inflows
- Counterfeit continued to increase and reached 0.07bn in 2020, the highest in the reporting period
- Inflows from neighbouring Ukraine, historically a major source country, declined by 79% to reach 0.04bn while inflows from Belarus increased to 0.06bn
- Neighbouring Austria remains the main outflow destination from Hungary, with flows declining by 37% in 2020

## Total inflows by country of origin – 2016-2020

Inflows to Hungary					
Billion cigarettes	2016	2017	2018	2019	2020
IWs with no country-specific labelling	0.12	0.13	0.29	0.44	0.16
Counterfeit	0.02	0.03	0.02	0.04	0.07
Belarus	0.01	0.01	0.01	0.00	0.06
Ukraine	0.15	0.25	0.20	0.17	0.04
Duty Free Labelled	0.02	0.03	0.03	0.02	0.02
Other	0.14	0.18	0.21	0.13	0.09
<b>Total Inflows</b>	<b>0.46</b>	<b>0.63</b>	<b>0.76</b>	<b>0.81</b>	<b>0.43</b>

## Total outflows by country of origin – 2016-2020

Outflows from Hungary					
Billion cigarettes	2016	2017	2018	2019	2020
Austria	(0.40)	(0.31)	(0.24)	(0.23)	(0.14)
Germany	(0.09)	(0.09)	(0.11)	(0.07)	(0.04)
France	(0.01)	(0.01)	(0.03)	(0.02)	(0.01)
Slovenia	(0.01)	(0.00)	(0.03)	(0.00)	(0.01)
Other	(0.23)	(0.21)	(0.17)	(0.14)	(0.04)
<b>Total Outflows</b>	<b>(0.73)</b>	<b>(0.62)</b>	<b>(0.59)</b>	<b>(0.46)</b>	<b>(0.25)</b>

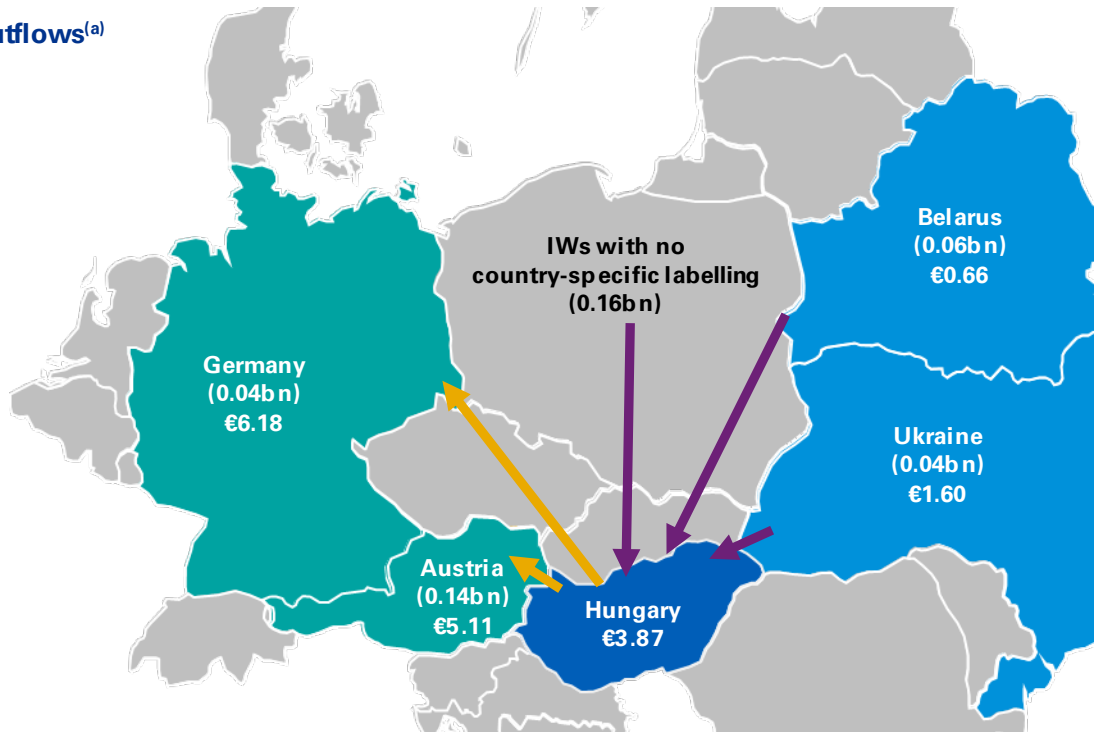
Note: Inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows. Remaining flows are included in the 'Other' category  
 Source: KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section

# Key flows and C&C consumption patterns

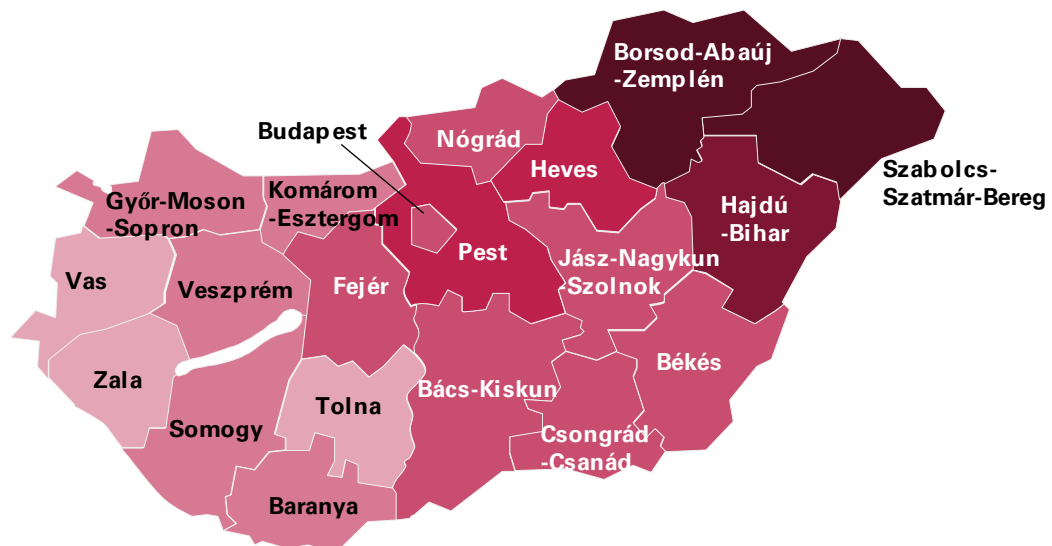
## Key inflows and outflows<sup>(a)</sup>

- Hungary
- Source
- Destination
- Inflow
- Outflow

**Label description:**  
Country (Inflow/  
Outflow Volume)  
WAP



## C&C % by region<sup>(b)(c)</sup>



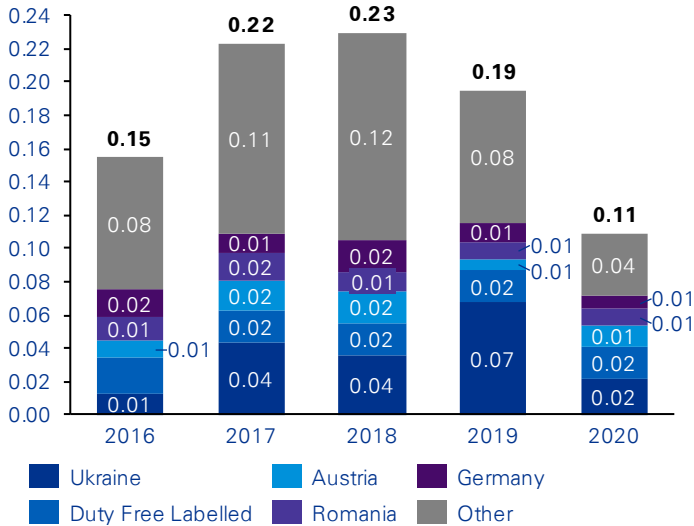
Low High

Note: (a) For countries with both inflows and outflows, only the larger of the two flows have been shown (b) C&C scale is relative to this market and is not comparable with other markets in the study, (c) Data not available for regions in grey

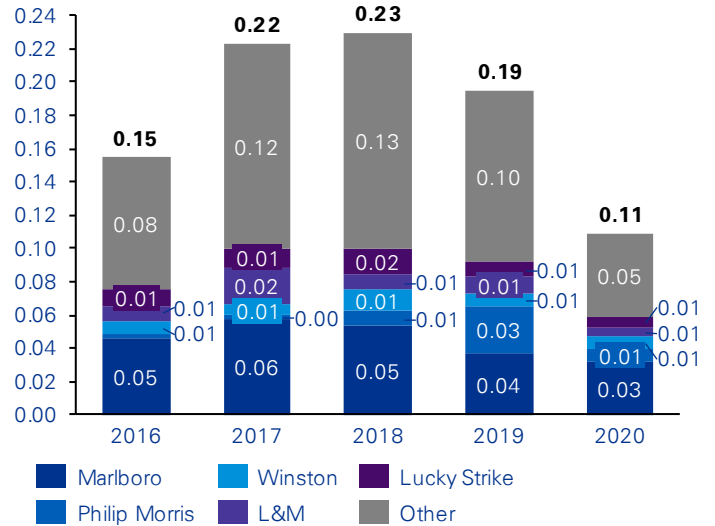
Source: (1) KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section

# ND(L) and C&C flows

**ND(L) by country of origin – 2016-2020 (bn cigarettes)**

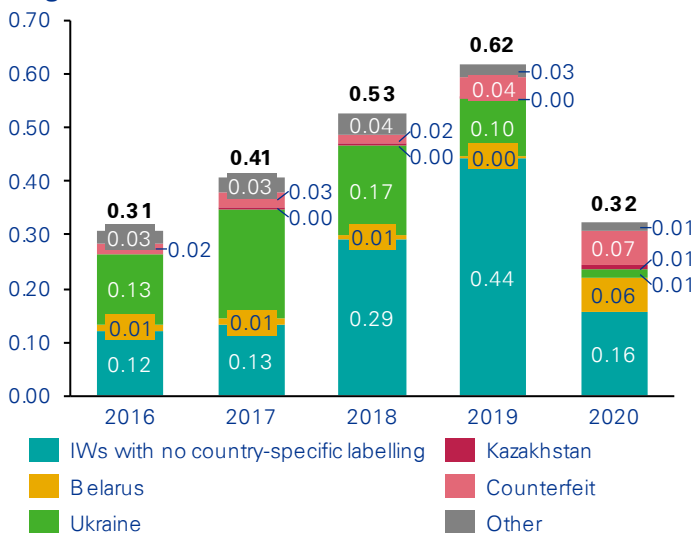


**ND(L) by brand – 2016-2020 (bn cigarettes)**

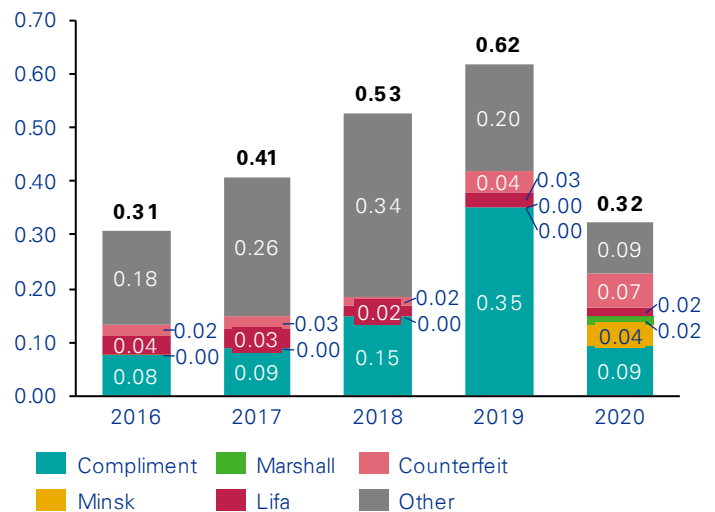


- Legal inflows (ND(L)) declined by 44% in 2020
- The C&C decline was driven by reduced inflows of Illicit Whites with no country-specific labelling and reduced inflows from Ukraine
- C&C consumption was highest in the North East regions bordering Ukraine

**C&C by country of origin – 2016-2020 (bn cigarettes)**



**C&C by brand – 2016-2020 (bn cigarettes)**



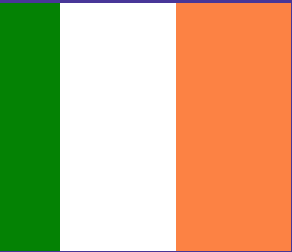
Note: (a) C&C breakdown chart only includes counterfeit volumes related to brands of manufacturers who participate in the empty pack/yellow bag surveys  
 Source: (1) KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section



**KPMG**

Ireland





# C&C cigarette consumption and total consumption

3.4bn

Cigarettes consumed



-0.39bn on 2019

0.6bn

C&C cigarettes consumed



-0.08bn on 2019

17.3%

Of total consumption was C&C



-0.23%pts on 2019

€301m

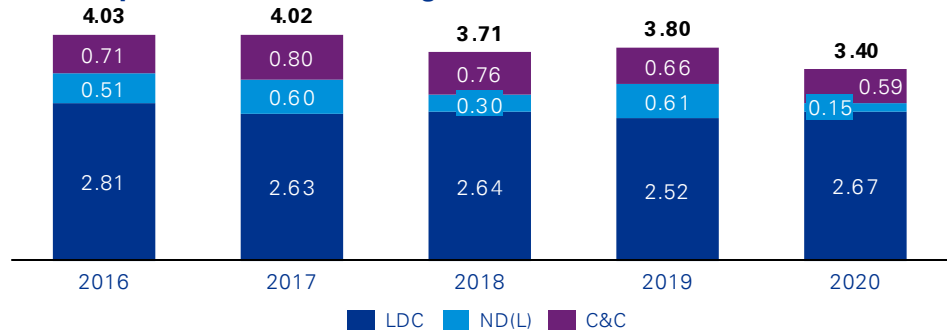
Estimated total tax revenue lost from C&C



-€21m on 2019

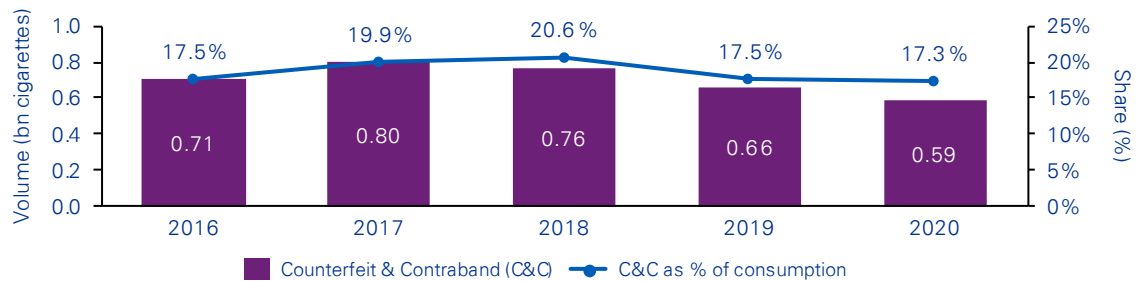


**Total consumption – 2016-2020 (bn cigarettes)**

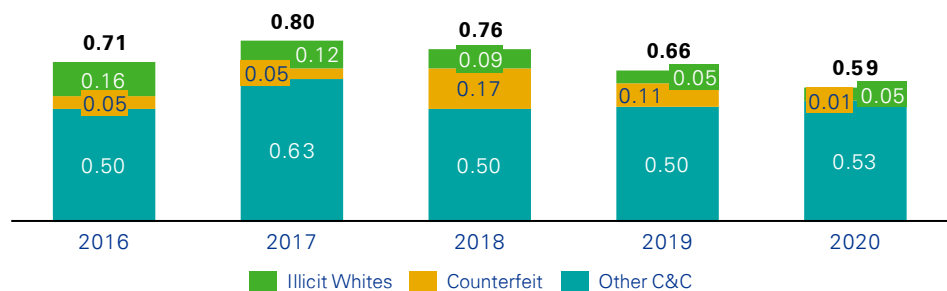


- C&C formed 17.3% of total consumption in 2020, a 0.2ppt decline on 2019, with the reduction driven by lower Counterfeit flows
- No Counterfeit packs with plain packaging were found during the empty pack survey

**Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2016-2020**



**Breakdown of C&C consumption by type – 2016-2020 (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 2020. For detailed methodology and a list of sources, refer to the methodology section

# Manufactured cigarette consumption, inflows and outflows

## Total manufactured cigarette consumption – 2016-2020

Total Ireland Consumption						
Billion cigarettes	2016	2017	2018	2019	2020	2019-20 (%)
Legal Domestic Sales (LDS)	2.90	2.73	2.75	2.55	2.70	6%
Outflows	(0.09)	(0.10)	(0.11)	(0.03)	(0.03)	1%
Legal Domestic Consumption (LDC)	2.81	2.63	2.64	2.52	2.67	6%
Non-Domestic Legal (ND(L))	0.51	0.60	0.30	0.61	0.15	(76%)
Counterfeit and Contraband (C&C)	0.71	0.80	0.76	0.66	0.59	(11%)
Total Non-Domestic	1.22	1.40	1.07	1.27	0.73	(42%)
<b>Total Consumption</b>	<b>4.03</b>	<b>4.02</b>	<b>3.71</b>	<b>3.80</b>	<b>3.40</b>	<b>(10%)</b>

- Total consumption declined by 10%, driven by declining non-domestic consumption against a backdrop of travel restrictions as a result of the COVID-19 pandemic
- While total inflows to Ireland have declined by 42%, inflows from Romania, Poland and Unspecified sources (where it is not possible to identify the intended country of consumption) have increased
- As one of the highest priced markets in the EU, outflows from Ireland are small

## Total inflows by country of origin – 2016-2020

Inflows to Ireland					
Billion cigarettes	2016	2017	2018	2019	2020
Romania	0.08	0.10	0.17	0.11	0.19
Unspecified	0.00	0.01	0.00	0.00	0.11
Poland	0.11	0.10	0.10	0.06	0.09
Duty Free Labelled	0.15	0.20	0.14	0.14	0.08
UK	0.12	0.12	0.06	0.12	0.02
Other	0.76	0.87	0.59	0.84	0.23
<b>Total Inflows</b>	<b>1.22</b>	<b>1.40</b>	<b>1.07</b>	<b>1.27</b>	<b>0.73</b>

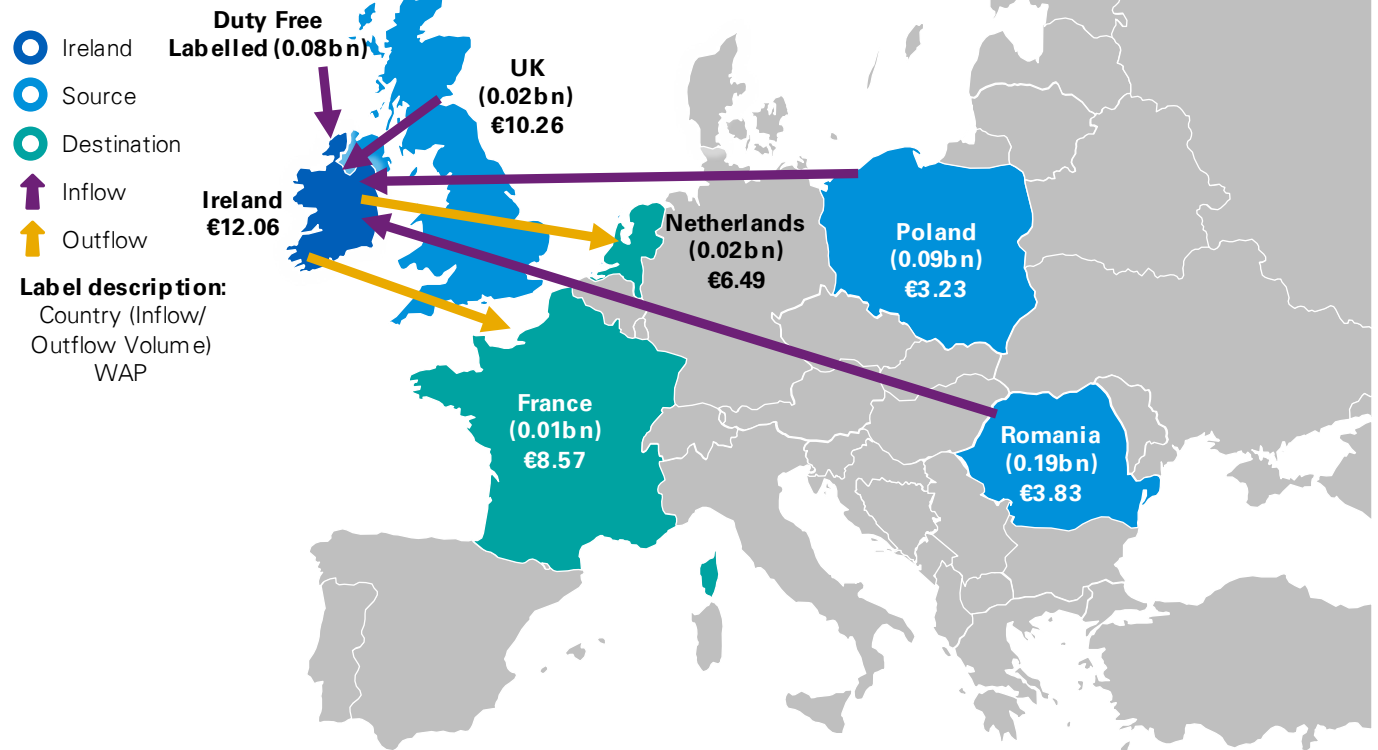
## Total outflows by country of origin – 2016-2020

Outflows from Ireland					
Billion cigarettes	2016	2017	2018	2019	2020
Netherlands	(0.02)	(0.02)	(0.02)	(0.01)	(0.02)
France	0.00	(0.00)	(0.00)	(0.00)	(0.01)
Other	(0.07)	(0.08)	(0.08)	(0.02)	(0.00)
<b>Total Outflows</b>	<b>(0.09)</b>	<b>(0.10)</b>	<b>(0.11)</b>	<b>(0.03)</b>	<b>(0.03)</b>

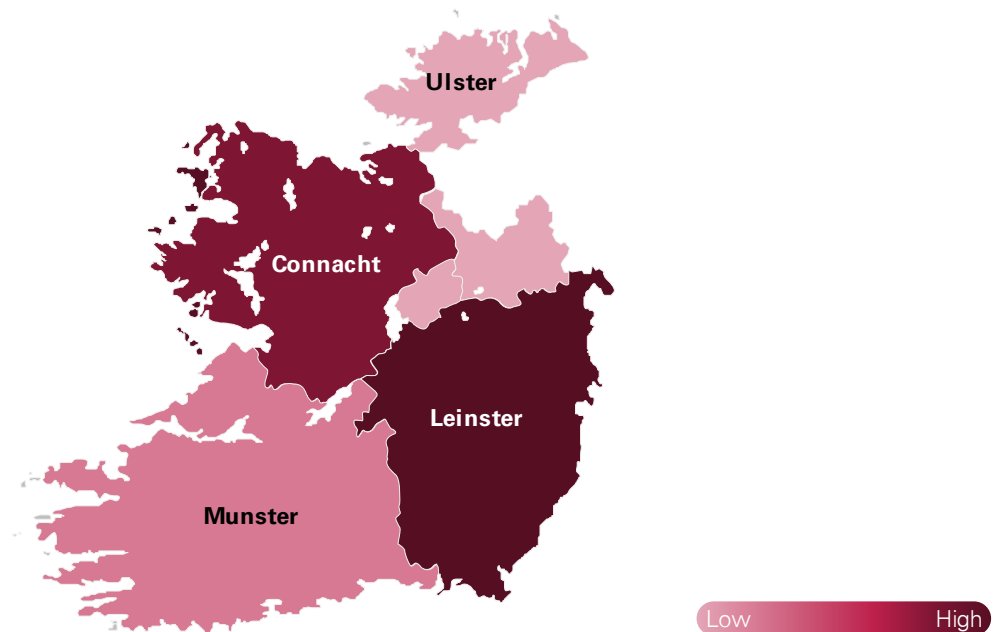
Note: Inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows. Remaining flows are included in the 'Other' category  
 Source: KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section

# Key flows and C&C consumption patterns

## Key inflows and outflows<sup>(a)</sup>



## C&C % by region<sup>(b)(c)</sup>



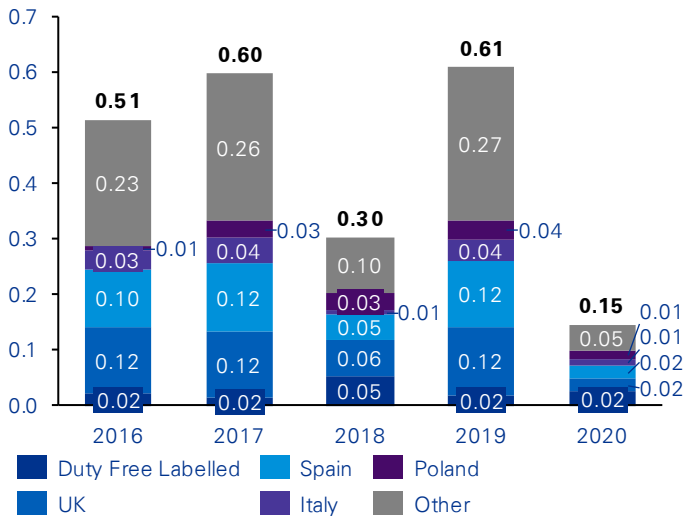
Note: (a) For countries with both inflows and outflows, only the larger of the two flows have been shown (b) C&C scale is relative to this market and is not comparable with other markets in the study, (c) Data not available for regions in grey

Source: (1) KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section

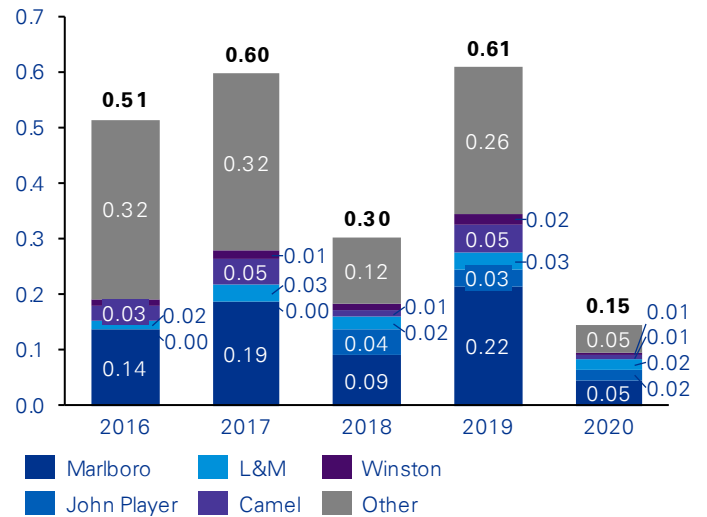


# ND(L) and C&C flows

**ND(L) by country of origin – 2016-2020 (bn cigarettes)**

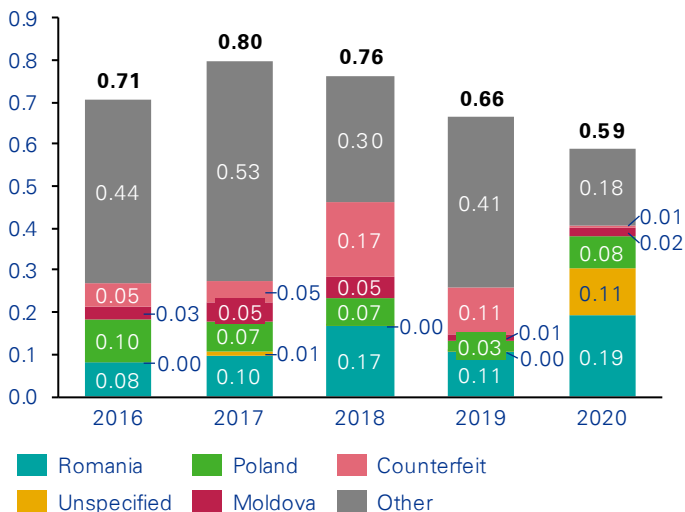


**ND(L) by brand – 2016-2020 (bn cigarettes)**

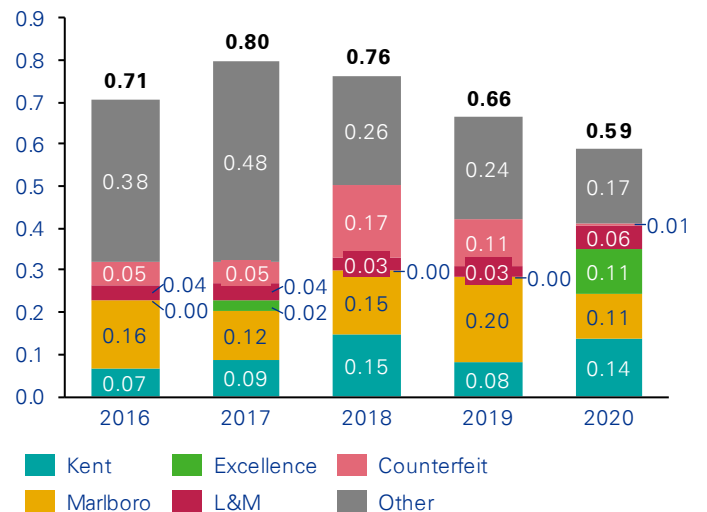


- Legal (ND(L)) inflows declined by 76% in 2020, driven by lower inflows from the UK and Spain
- Total C&C declined 11% in 2020 driven by reduced illicit inflows from a number of smaller markets within the 'Other' category, despite an increase in illicit flows from Romania, Poland and Unspecified origins
- Counterfeit volumes reduced to the lowest level seen in the reporting period

**C&C by country of origin – 2016-2020 (bn cigarettes)**



**C&C by brand – 2016-2020 (bn cigarettes)**



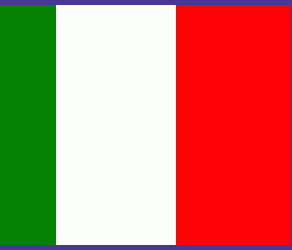
Note: (a) C&C breakdown chart only includes counterfeit volumes related to brands of manufacturers who participate in the empty pack/yellow bag surveys  
 Source: (1) KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section



**KPMG**

Italy





# C&C cigarette consumption and total consumption

63.7bn

Cigarettes consumed



-3.74bn on 2019

2.2bn

C&C cigarettes consumed



-0.43bn on 2019

3.4%

Of total consumption was C&C



-0.45 %pts on 2019

€427m

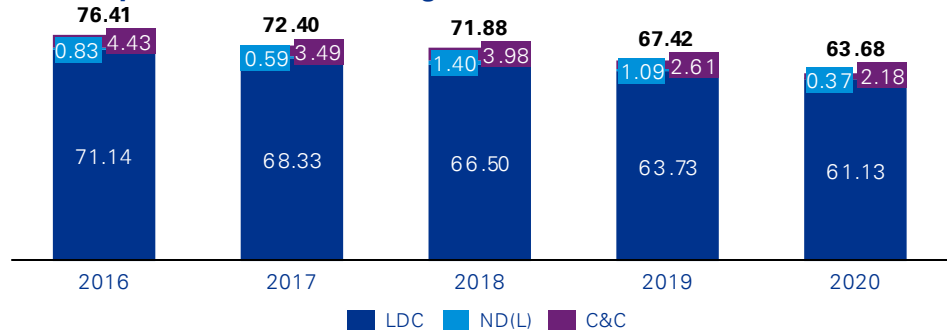
Estimated total tax revenue lost from C&C



-€68m on 2019

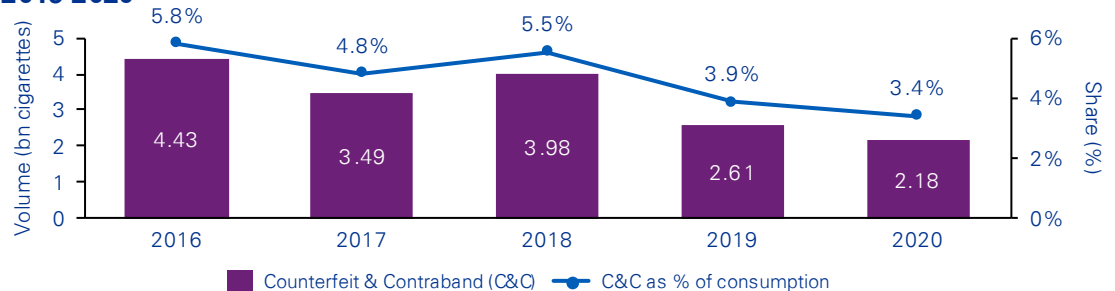


Total consumption – 2016-2020 (bn cigarettes)

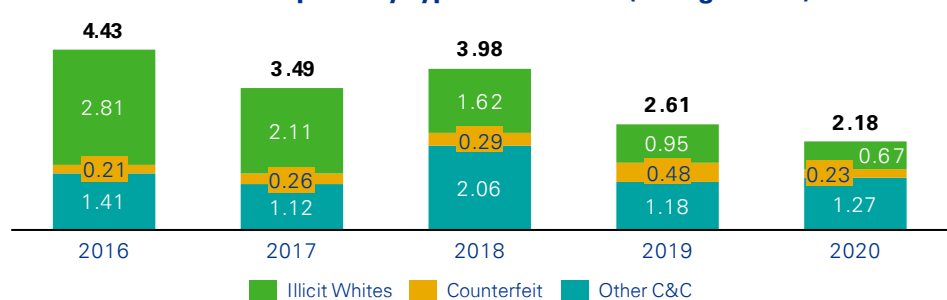


- C&C declined to 3.4% of total cigarette consumption in 2020, the lowest level seen in the reporting period.
- Illicit Whites and Counterfeit flows declined, partly offset by an increase in Other C&C

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2016-2020



Breakdown of C&C consumption by type – 2016-2020 (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

Sources: (1) KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section

# Manufactured cigarette consumption, inflows and outflows

## Total manufactured cigarette consumption – 2016-2020

Total Italy Consumption						
Billion cigarettes	2016	2017	2018	2019	2020	2019-20 (%)
Legal Domestic Sales (LDS)	72.05	69.33	67.46	64.63	61.74	(4%)
Outflows	(0.91)	(1.00)	(0.97)	(0.90)	(0.61)	(33%)
Legal Domestic Consumption (LDC)	71.14	68.33	66.50	63.73	61.13	(4%)
Non-Domestic Legal (ND(L))	0.83	0.59	1.40	1.09	0.37	(66%)
Counterfeit and Contraband (C&C)	4.43	3.49	3.98	2.61	2.18	(16%)
Total Non-Domestic	5.26	4.08	5.38	3.70	2.55	(31%)
<b>Total Consumption</b>	<b>76.41</b>	<b>72.40</b>	<b>71.88</b>	<b>67.42</b>	<b>63.68</b>	<b>(6%)</b>

- Total cigarette consumption declined by 6% in 2020, continuing the trend seen in 2019. The decline is principally driven by reduced legal domestic sales and is supported by the continuing growth of e-cigarettes, heated tobacco and other smokeless products in the market<sup>(1)</sup>
- Illicit Whites with no country-specific labelling remains the largest inflow to Italy, albeit with a decline of 0.22bn cigarettes in 2020
- Counterfeit volumes decreased to 0.23bn in 2020, the lowest level recorded since 2017
- Outflows declined by 33%, against a backdrop of travel restrictions throughout 2020. France remained the largest destination for Italian cigarettes

## Total inflows by country of origin – 2016-2020

Inflows to Italy					
Billion cigarettes	2016	2017	2018	2019	2020
IWs with no country-specific labelling	2.47	1.39	1.60	0.82	0.60
Slovenia	0.15	0.12	0.18	0.41	0.45
Duty Free Labelled	0.40	0.41	0.77	0.68	0.45
Counterfeit	0.20	0.26	0.29	0.48	0.23
Albania	0.02	0.01	0.08	0.08	0.09
Other	2.02	1.89	2.46	1.23	0.72
<b>Total Inflows</b>	<b>5.26</b>	<b>4.08</b>	<b>5.38</b>	<b>3.70</b>	<b>2.55</b>

## Total outflows by country of origin – 2016-2020

Outflows from Italy					
Billion cigarettes	2016	2017	2018	2019	2020
France	(0.40)	(0.35)	(0.33)	(0.38)	(0.31)
Germany	(0.10)	(0.07)	(0.16)	(0.10)	(0.08)
Netherlands	(0.07)	(0.17)	(0.14)	(0.07)	(0.06)
UK	(0.05)	(0.05)	(0.03)	(0.05)	(0.03)
Other	(0.29)	(0.35)	(0.31)	(0.30)	(0.12)
<b>Total Outflows</b>	<b>(0.91)</b>	<b>(1.00)</b>	<b>(0.97)</b>	<b>(0.90)</b>	<b>(0.61)</b>

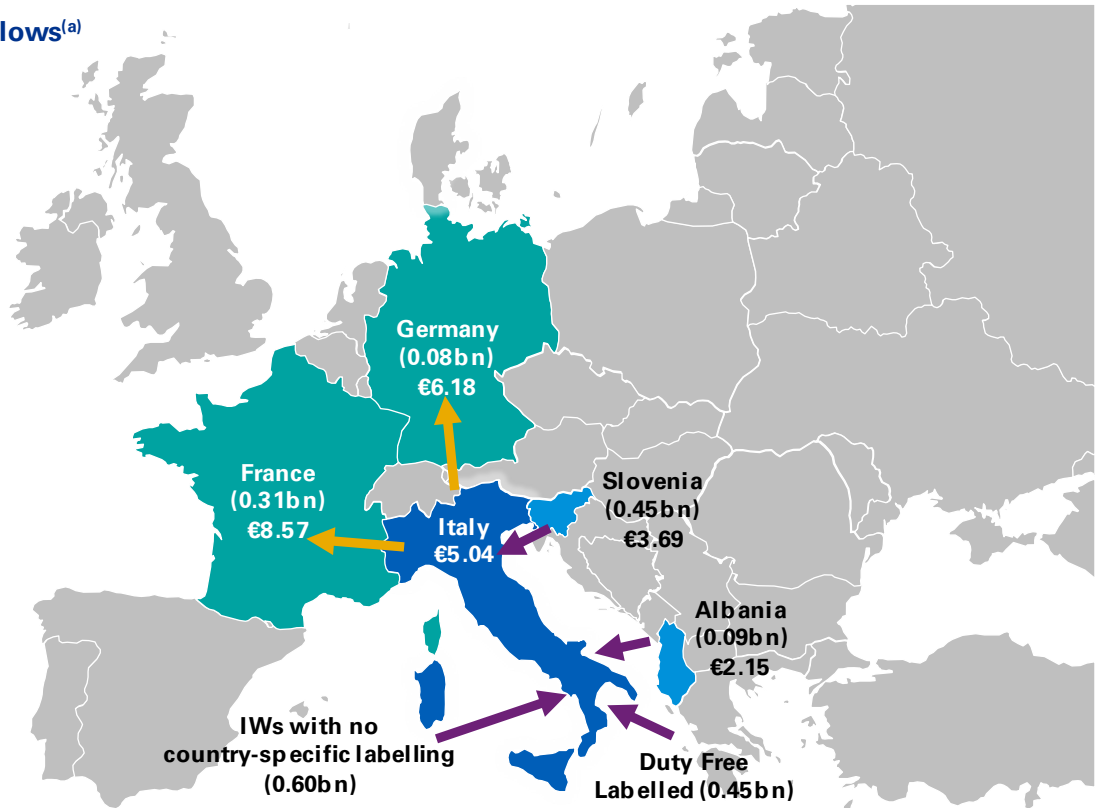
Note: Inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows. Remaining flows are included in the 'Other' category  
Source: KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section (1) Euromonitor as at May 2021

# Key flows and C&C consumption patterns

## Key inflows and outflows<sup>(a)</sup>

- Italy
- Source
- Destination
- Inflow
- Outflow

**Label description:**  
Country (Inflow/  
Outflow Volume)  
WAP



## C&C % by region<sup>(b)(c)</sup>



Low High

Note: (a) For countries with both inflows and outflows, only the larger of the two flows have been shown (b) C&C scale is relative to this market and is not comparable with other markets in the study, (c) Data not available for regions in grey

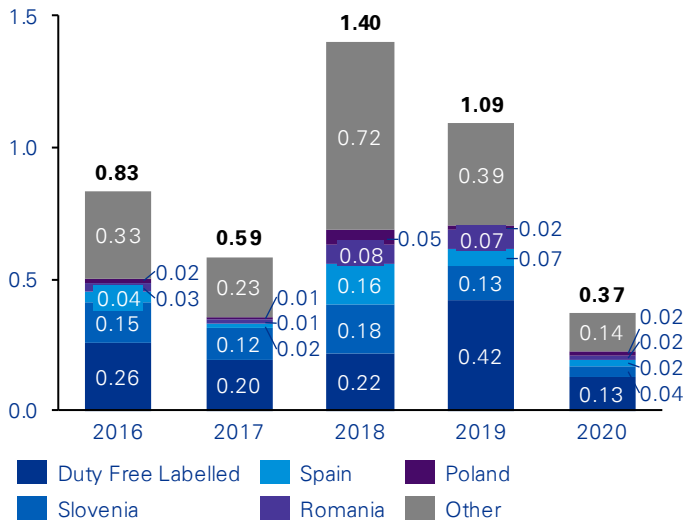
Source: (1) KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section



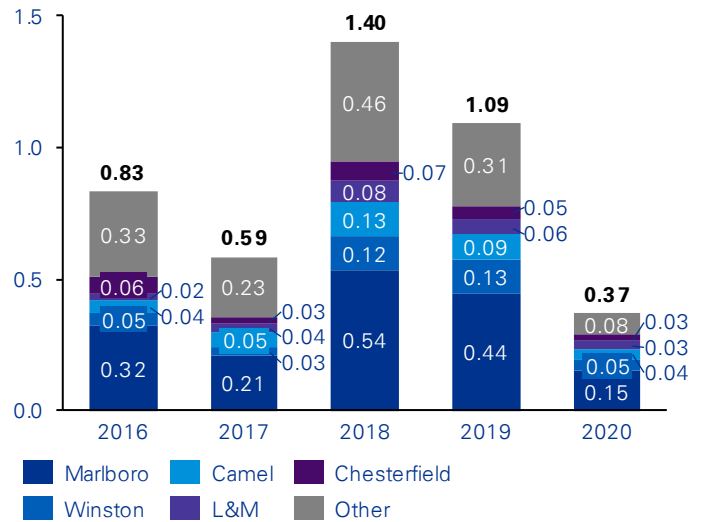
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# ND(L) and C&C flows

**ND(L) by country of origin – 2016-2020 (bn cigarettes)**

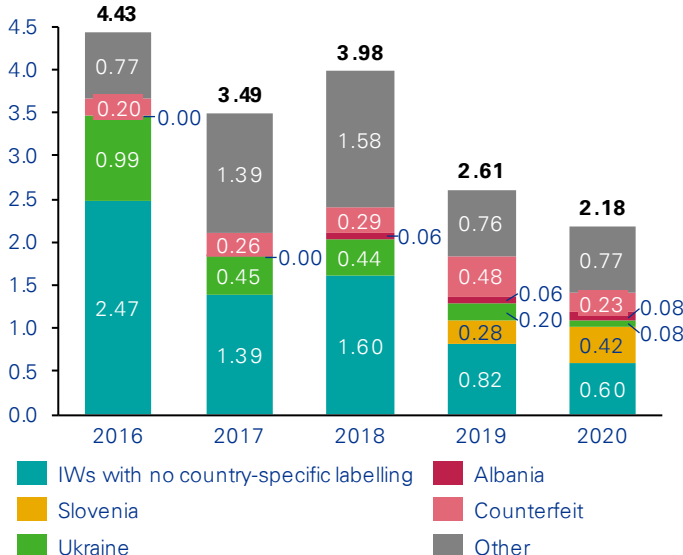


**ND(L) by brand – 2016-2020 (bn cigarettes)**

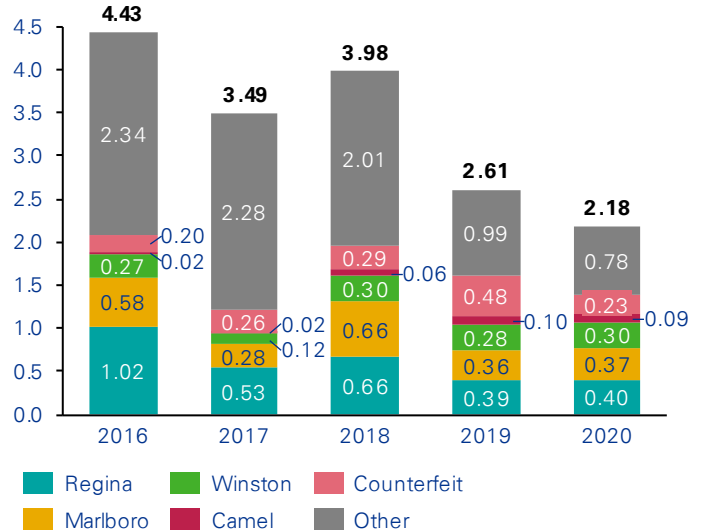


- Against a backdrop of COVID-19 related travel restrictions, ND(L) declined by 66% in 2020, with Duty Free experiencing the largest decline
- C&C inflows from Slovenia increased in 2020, as a greater share of consumption was found in areas far from the border region, suggesting that consumption of Slovenian cigarettes in Italy was not solely due to legal cross-border shoppers
- Friuli Venezia Giulia and the Campania regions continued to have the highest levels of C&C in 2020

**C&C by country of origin – 2016-2020 (bn cigarettes)**



**C&C by brand – 2016-2020 (bn cigarettes)**



Note: (a) C&C breakdown chart only includes counterfeit volumes related to brands of manufacturers who participate in the empty pack/yellow bag surveys

Source: (1) KPMG EU Flows Calculation 2020. 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



-0.01bn on 2019

0.4bn

C&C cigarettes consumed



+0.10bn on 2019

19.1%

Of total consumption was C&C



+4.99% pts on 2019

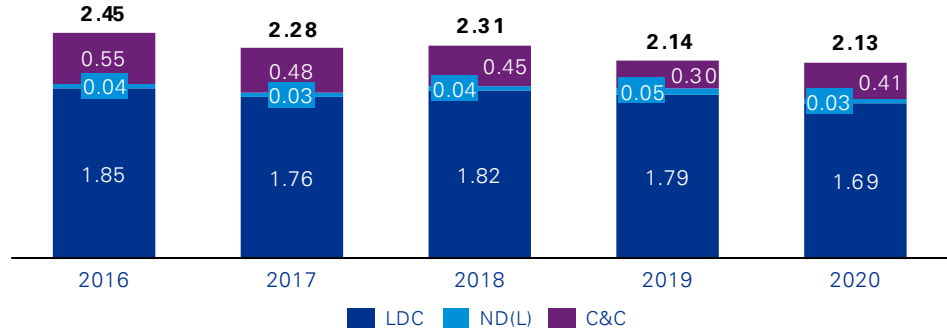
€59m

Estimated total tax revenue lost from C&C



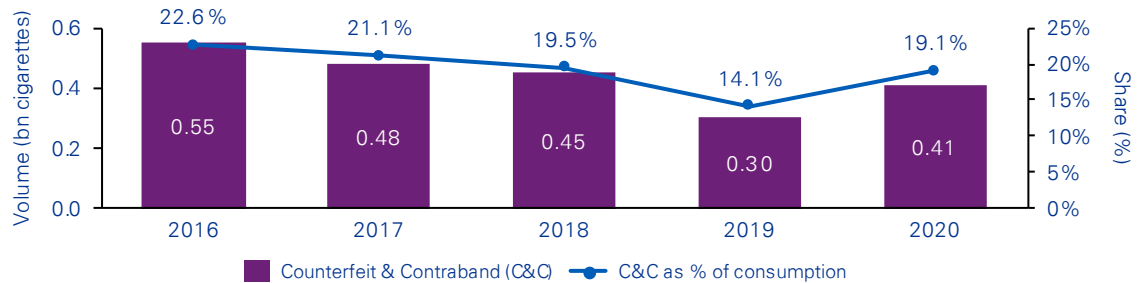
+€19m on 2019

Total consumption – 2016-2020 (bn cigarettes)

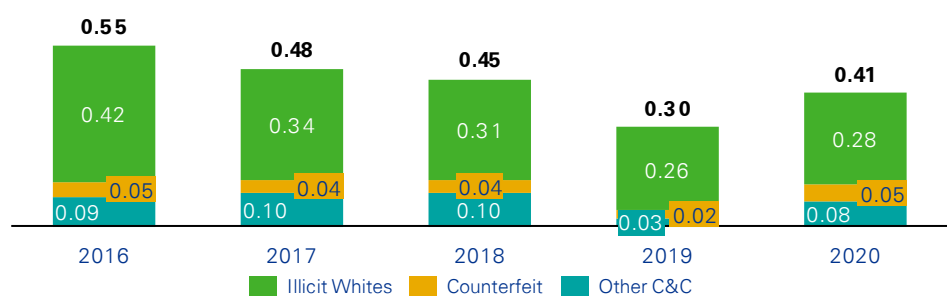


— After three years of decline, C&C increased to 19.1% of total consumption, with Illicit Whites, Counterfeit and Other C&C flows increasing

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2016-2020



Breakdown of C&C consumption by type – 2016-2020 (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 2020. For detailed methodology and a list of sources, refer to the methodology section



# Manufactured cigarette consumption, inflows and outflows

## Total manufactured cigarette consumption – 2016-2020

Total Latvia Consumption						
Billion cigarettes	2016	2017	2018	2019	2020	2019-20 (%)
Legal Domestic Sales (LDS)	1.947	1.886	1.940	1.902	1.803	(5%)
Outflows	(0.097)	(0.123)	(0.119)	(0.116)	(0.111)	(4%)
Legal Domestic Consumption (LDC)	1.851	1.763	1.821	1.787	1.693	(5%)
Non-Domestic Legal (ND(L))	0.045	0.033	0.040	0.052	0.028	(47%)
Counterfeit and Contraband (C&C)	0.552	0.481	0.451	0.302	0.406	34%
Total Non-Domestic	0.593	0.514	0.491	0.354	0.434	23%
<b>Total Consumption</b>	<b>2.444</b>	<b>2.276</b>	<b>2.312</b>	<b>2.141</b>	<b>2.127</b>	<b>(1%)</b>

- Total cigarette consumption saw a relatively small 1% decline in 2020, with a decline in legal domestic consumption offset by an increase in non-domestic inflows
- Non-domestic inflows were principally driven by increased Belarus and Counterfeit inflows, as well as an increase in a number of smaller volume inflows within the 'Other' category
- Finland, Estonia and Sweden continue to be the key destinations for outflows from Latvia

## Total inflows by country of origin – 2016-2020

Inflows to Latvia					
Billion cigarettes	2016	2017	2018	2019	2020
Belarus	0.408	0.343	0.324	0.268	0.291
Counterfeit	0.045	0.037	0.037	0.021	0.052
Other	0.139	0.133	0.130	0.065	0.092
<b>Total Inflows</b>	<b>0.593</b>	<b>0.514</b>	<b>0.491</b>	<b>0.354</b>	<b>0.434</b>

## Total outflows by country of origin – 2016-2020

Outflows from Latvia					
Billion cigarettes	2016	2017	2018	2019	2020
Finland	(0.004)	(0.017)	(0.017)	(0.021)	(0.031)
Estonia	(0.015)	(0.029)	(0.030)	(0.009)	(0.020)
Sweden	(0.012)	(0.017)	(0.011)	(0.037)	(0.013)
Ireland	(0.007)	(0.005)	(0.006)	(0.006)	(0.011)
Poland	(0.002)	(0.002)	(0.005)	(0.002)	(0.009)
Other	(0.057)	(0.053)	(0.050)	(0.040)	(0.027)
<b>Total Outflows</b>	<b>(0.097)</b>	<b>(0.123)</b>	<b>(0.119)</b>	<b>(0.116)</b>	<b>(0.111)</b>

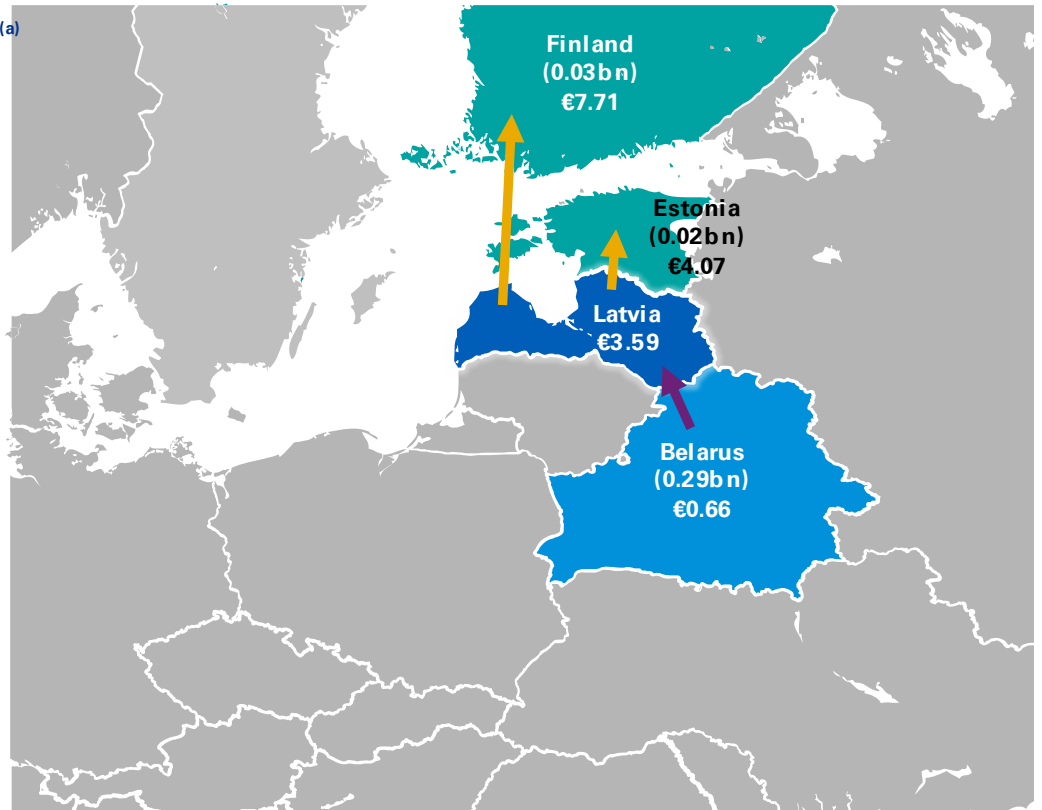
Note: Inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows. Remaining flows are included in the 'Other' category  
 Source: KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section

# Key flows and C&C consumption patterns

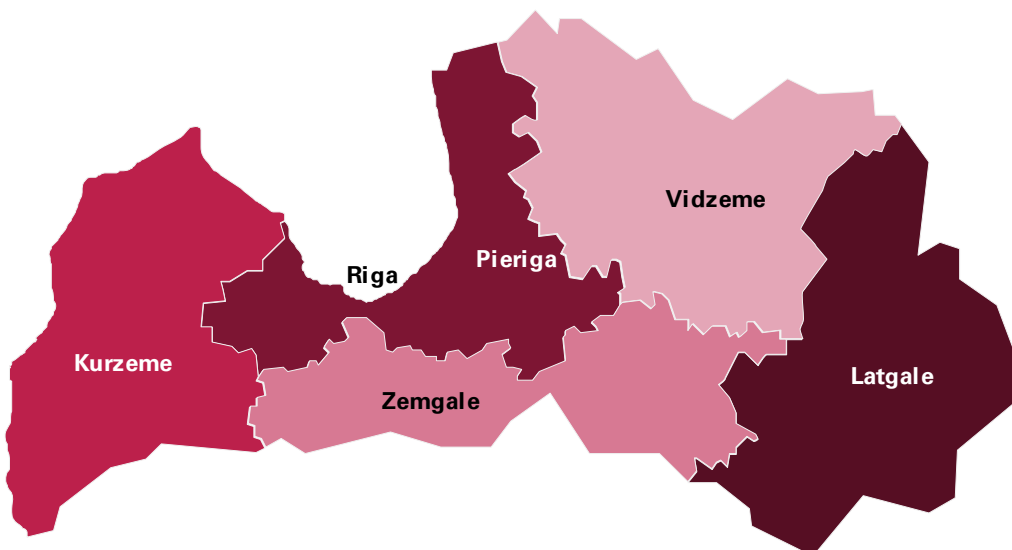
## Key inflows and outflows<sup>(a)</sup>

- Latvia
- Source
- Destination
- Inflow
- Outflow

**Label description:**  
Country (Inflow/  
Outflow Volume)  
WAP



## C&C % by region<sup>(b)(c)</sup>



Low High

Note: (a) For countries with both inflows and outflows, only the larger of the two flows have been shown (b) C&C scale is relative to this market and is not comparable with other markets in the study, (c) Data not available for regions in grey

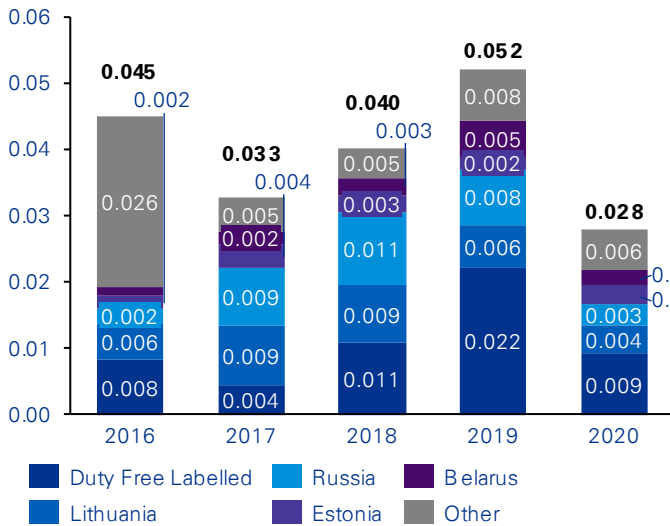
Source: (1) KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section



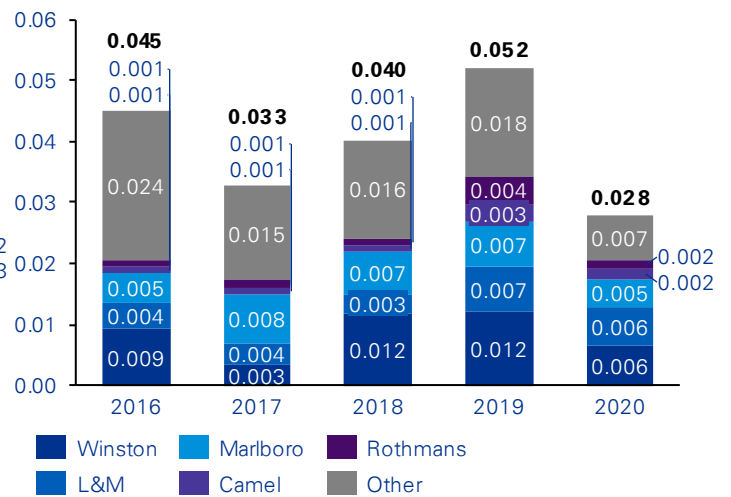
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# ND(L) and C&C flows

**ND(L) by country of origin – 2016-2020 (bn cigarettes)**

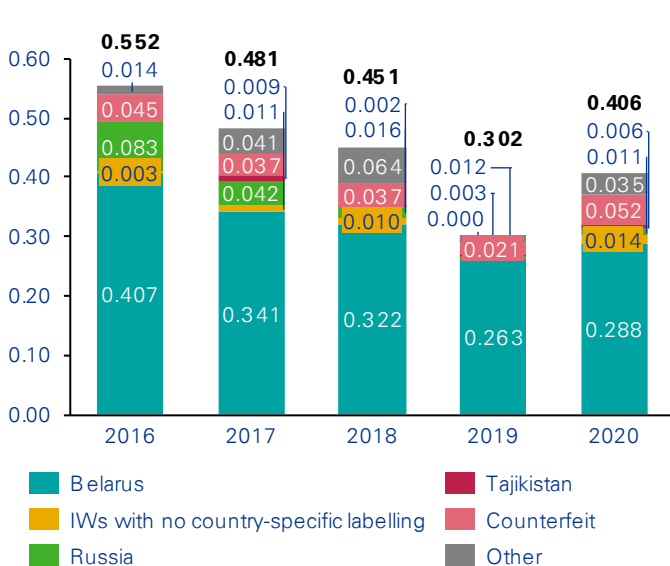


**ND(L) by brand – 2016-2020 (bn cigarettes)**

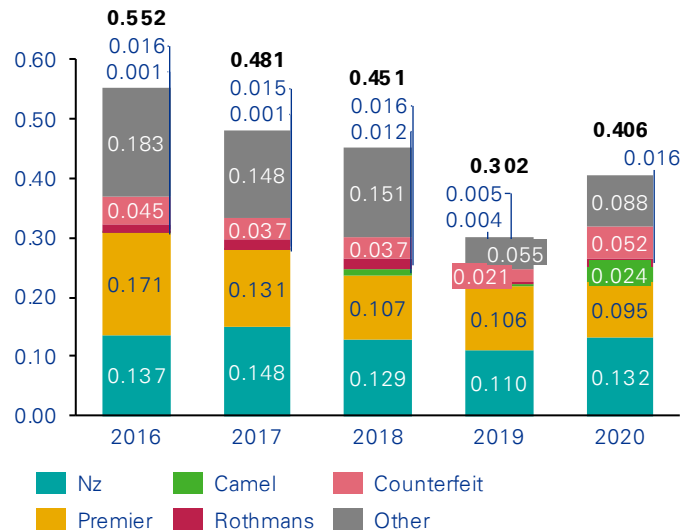


- ND(L) declined in 2020 to the lowest level in the reporting period against a backdrop of travel restrictions and border closures due to COVID-19
- The majority of inflows from Belarus are considered C&C as land border crossings have a 40 cigarette import limit, leading to a low legal share
- Counterfeit inflows increased in 2020 to the highest level seen in the reporting period
- The highest levels of C&C were detected in the Latgale region bordering Belarus and Russia

**C&C by country of origin – 2016-2020 (bn cigarettes)**



**C&C by brand – 2016-2020 (bn cigarettes)**



Note: (a) C&C breakdown chart only includes counterfeit volumes related to brands of manufacturers who participate in the empty pack/yellow bag surveys

Source: (1) KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section

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**KPMG**

Lithuania





# C&C cigarette consumption and total consumption

2.88bn

Cigarettes consumed



-0.18bn on 2019

0.58bn

C&C cigarettes consumed



+0.04bn on 2019

20.2%

Of total consumption was C&C



+2.49%pts on 2019

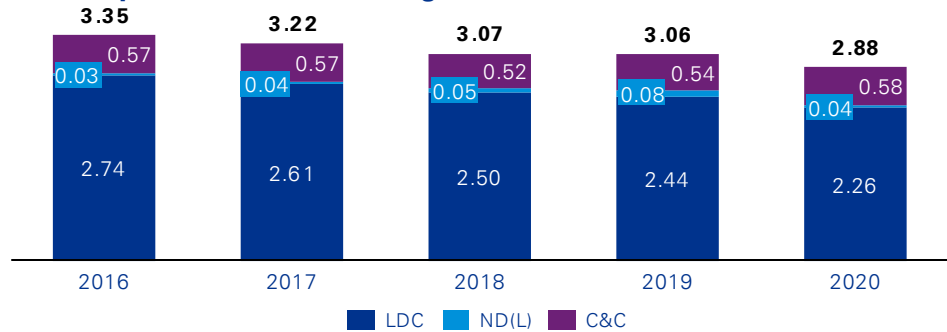
€82m

Estimated total tax revenue lost from C&C



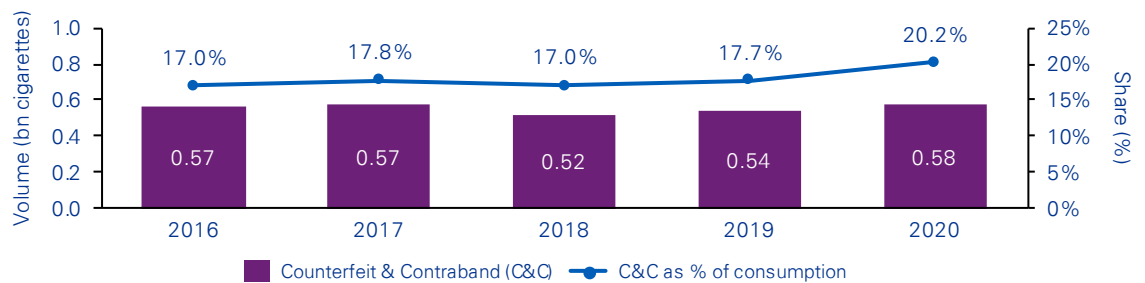
+€14m on 2019

Total consumption – 2016-2020 (bn cigarettes)

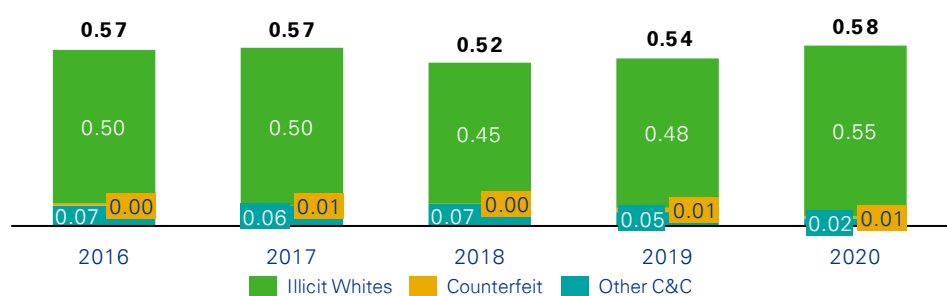


- C&C increased to 20.2% of cigarette consumption in 2020, continuing the growing trend since 2018
- Illicit Whites accounted for 94% of the total C&C in 2020, with the inflow increasing to 0.55bn cigarettes

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2016-2020



Breakdown of C&C consumption by type – 2016-2020 (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 2020. For detailed methodology and a list of sources, refer to the methodology section

# Manufactured cigarette consumption, inflows and outflows

## Total manufactured cigarette consumption – 2016-2020

Total Lithuania Consumption						
Billion cigarettes	2016	2017	2018	2019	2020	2019-20 (%)
Legal Domestic Sales (LDS)	3.13	2.94	2.79	2.68	2.41	(10%)
Outflows	(0.39)	(0.33)	(0.29)	(0.24)	(0.16)	(36%)
Legal Domestic Consumption (LDC)	2.74	2.61	2.50	2.44	2.26	(7%)
Non-Domestic Legal (ND(L))	0.03	0.04	0.05	0.08	0.04	(51%)
Counterfeit and Contraband (C&C)	0.57	0.57	0.52	0.54	0.58	7%
Total Non-Domestic	0.60	0.61	0.57	0.62	0.62	(0%)
<b>Total Consumption</b>	<b>3.35</b>	<b>3.22</b>	<b>3.07</b>	<b>3.06</b>	<b>2.88</b>	<b>(6%)</b>

- Total cigarette consumption declined by 6% in 2020, driven by a decline in the legal domestic consumption
- Non domestic inflows remained stable as an increase in C&C was offset by a decline in ND(L)
- Flows from neighbouring Belarus increased and accounted for 88% of the inflows in 2020

## Total inflows by country of origin – 2016-2020

Inflows to Lithuania					
Billion cigarettes	2016	2017	2018	2019	2020
Belarus	0.49	0.51	0.46	0.49	0.55
Other	0.12	0.10	0.11	0.14	0.07
<b>Total Inflows</b>	<b>0.60</b>	<b>0.61</b>	<b>0.57</b>	<b>0.62</b>	<b>0.62</b>

## Total outflows by country of origin – 2016-2020

Outflows from Lithuania					
Billion cigarettes	2016	2017	2018	2019	2020
Germany	(0.02)	(0.02)	(0.03)	(0.04)	(0.03)
UK	(0.16)	(0.10)	(0.11)	(0.07)	(0.02)
Ireland	(0.03)	(0.02)	(0.02)	(0.01)	(0.02)
Norway	(0.09)	(0.09)	(0.05)	(0.05)	(0.02)
Sweden	(0.01)	(0.01)	(0.00)	(0.02)	(0.02)
Other	(0.08)	(0.08)	(0.07)	(0.05)	(0.04)
<b>Total Outflows</b>	<b>(0.39)</b>	<b>(0.33)</b>	<b>(0.29)</b>	<b>(0.24)</b>	<b>(0.16)</b>

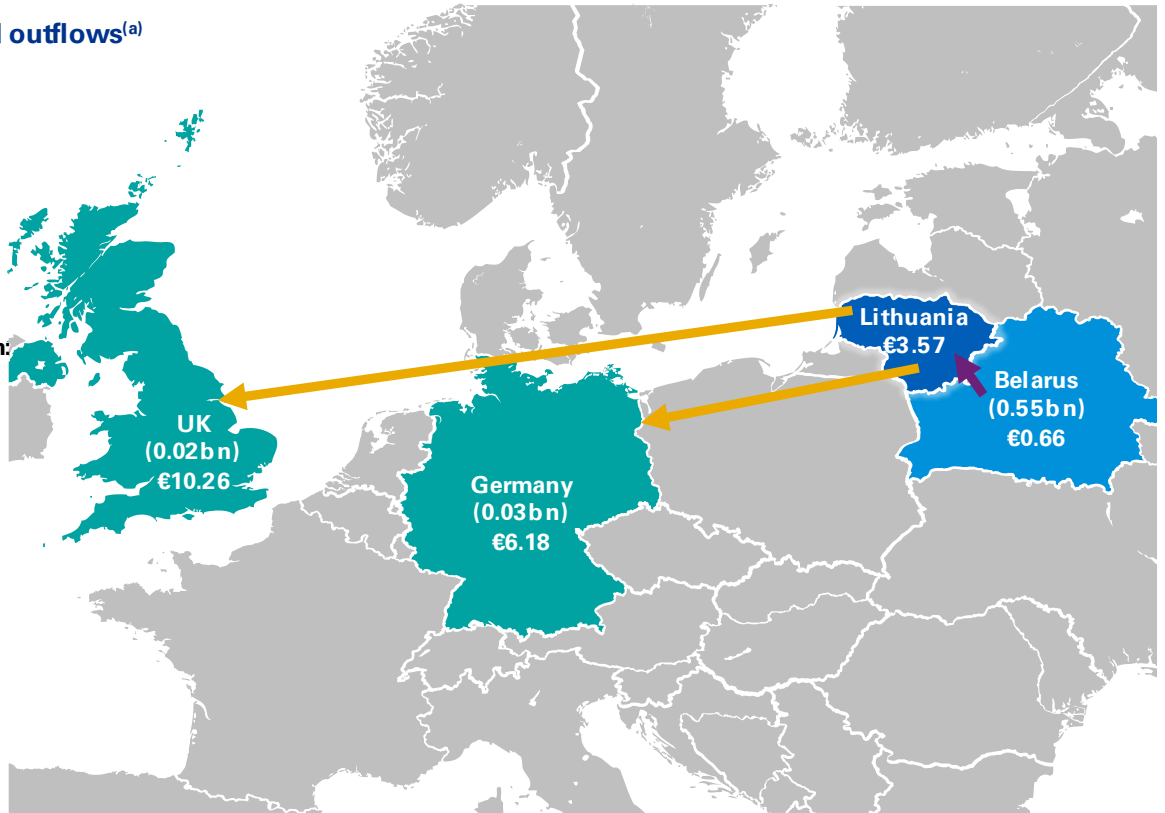
Note: Inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows. Remaining flows are included in the 'Other' category  
 Source: KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section

# Key flows and C&C consumption patterns

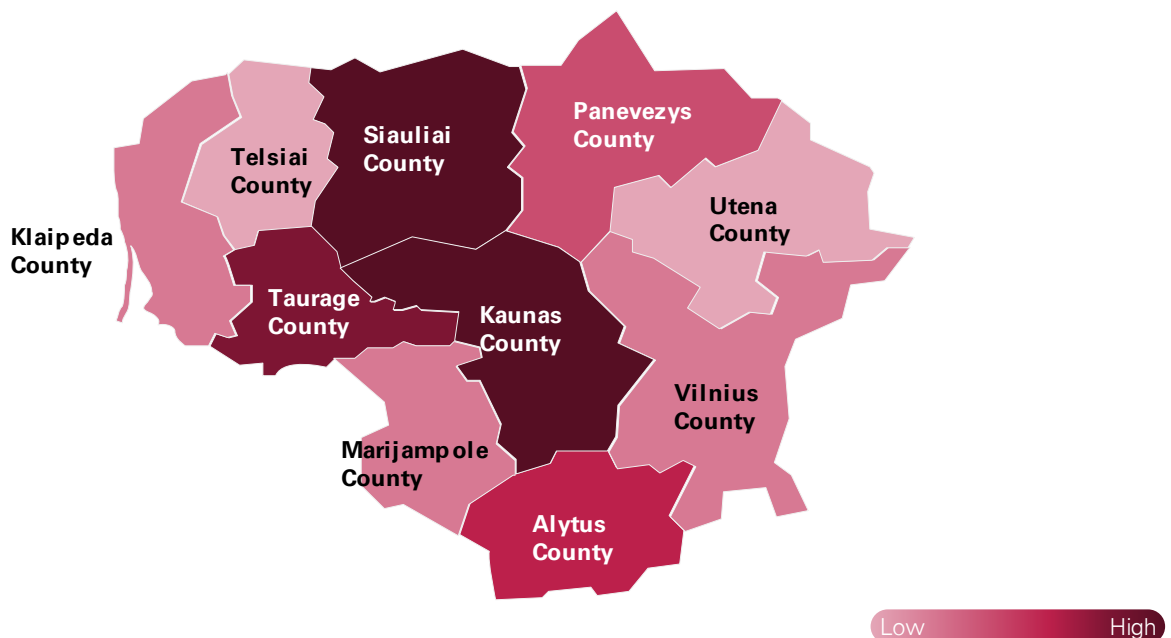
## Key inflows and outflows<sup>(a)</sup>

- Lithuania
- Source
- Destination
- Inflow
- Outflow

**Label description:**  
Country (Inflow/  
Outflow Volume)  
WAP



## C&C % by region<sup>(b)(c)</sup>

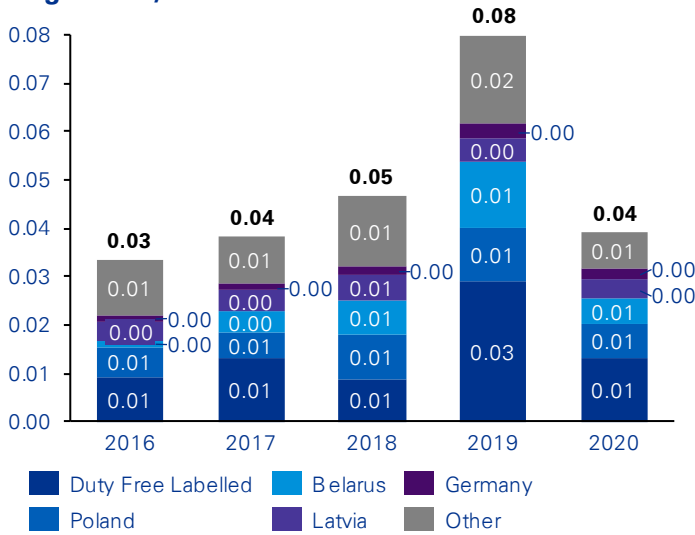


Note: (a) For countries with both inflows and outflows, only the larger of the two flows have been shown (b) C&C scale is relative to this market and is not comparable with other markets in the study, (c) Data not available for regions in grey

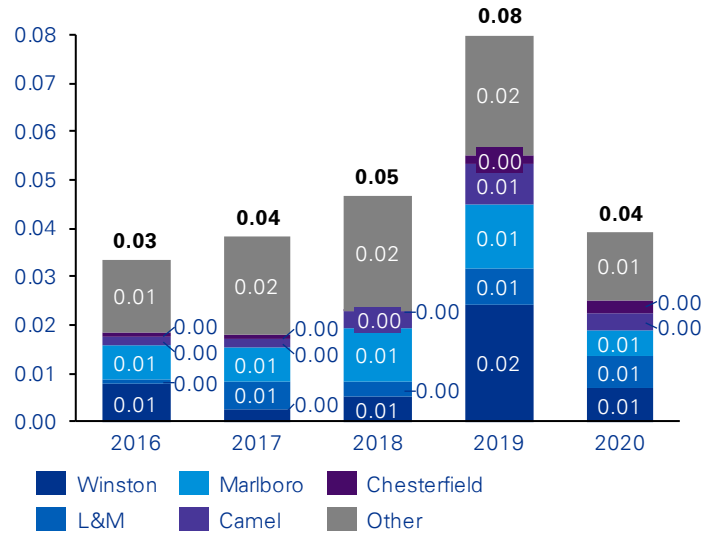
Source: (1) KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section

# ND(L) and C&C flows

**ND(L) by country of origin – 2016-2020 (bn cigarettes)**

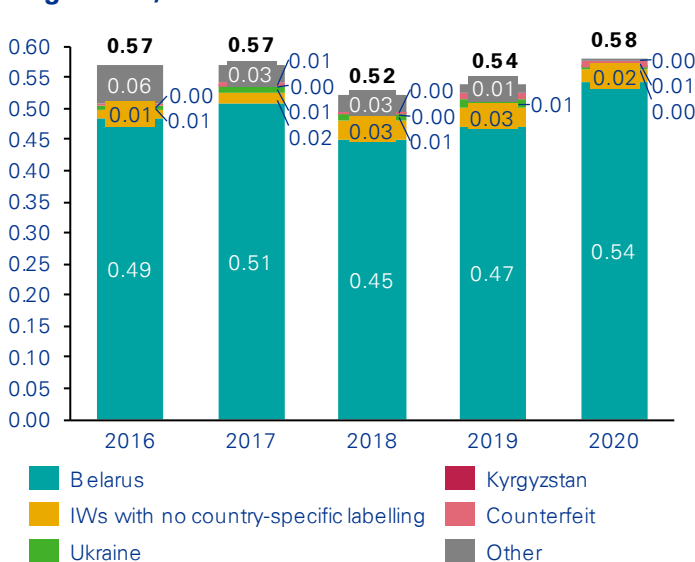


**ND(L) by brand – 2016-2020 (bn cigarettes)**

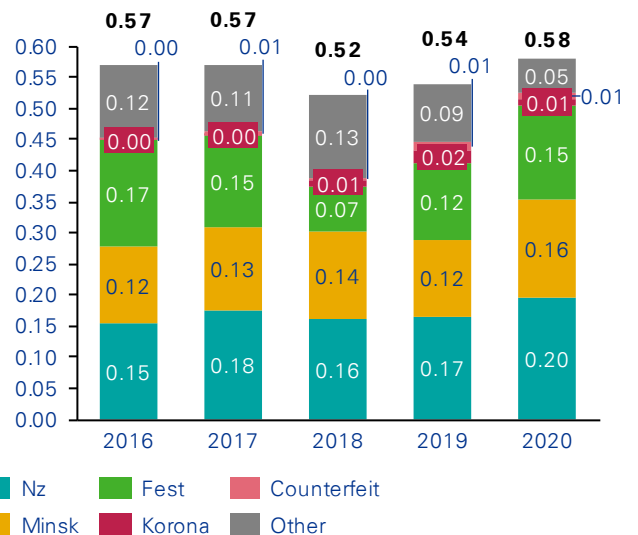


- Non-domestic legal (ND(L)) flows declined by 51 % in 2020, returning to similar levels seen in 2017
- Given the size of the inflow from Belarus and a low legal allowance of 40 cigarettes per person when travelling by land across the border, the majority of this flow was considered illicit
- The highest levels of C&C were detected in the Siauliai County and Kaunas County regions

**C&C by country of origin – 2016-2020 (bn cigarettes)**



**C&C by brand – 2016-2020 (bn cigarettes)**



Note: (a) C&C breakdown chart only includes counterfeit volumes related to brands of manufacturers who participate in the empty pack/yellow bag surveys  
 Source: (1) KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section





# Luxembourg



# C&C cigarette consumption and total consumption



0.5bn

Cigarettes consumed



+0.01bn on 2019

0.0bn

C&C cigarettes consumed



+0.00bn on 2019

2.8%

Of total consumption was C&C



+0.60%pts on 2019

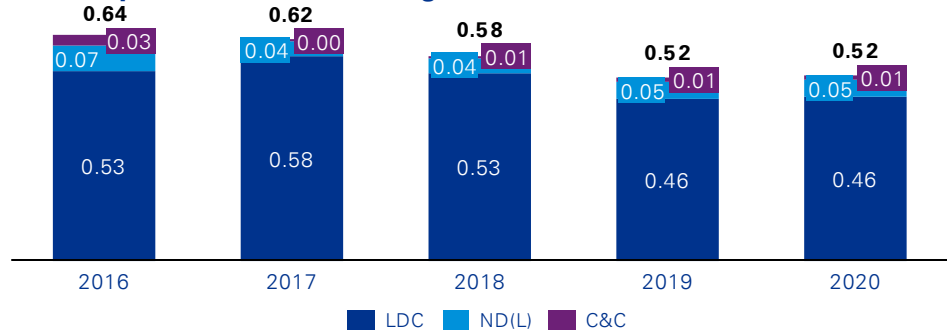
€2m

Estimated total tax revenue lost from C&C



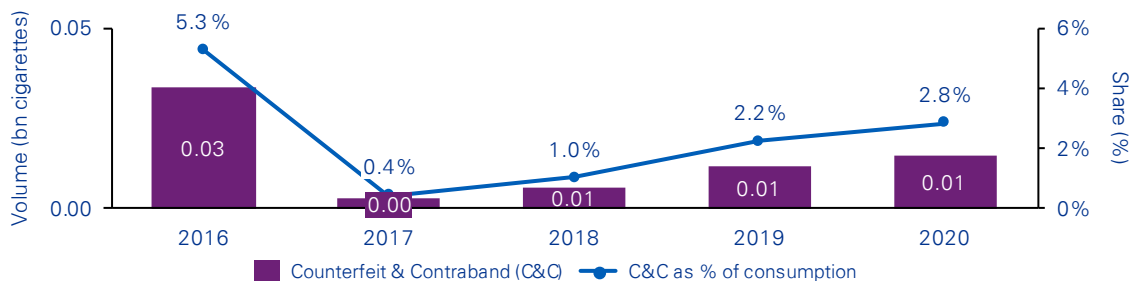
+€1m on 2019

Total consumption – 2016-2020 (bn cigarettes)

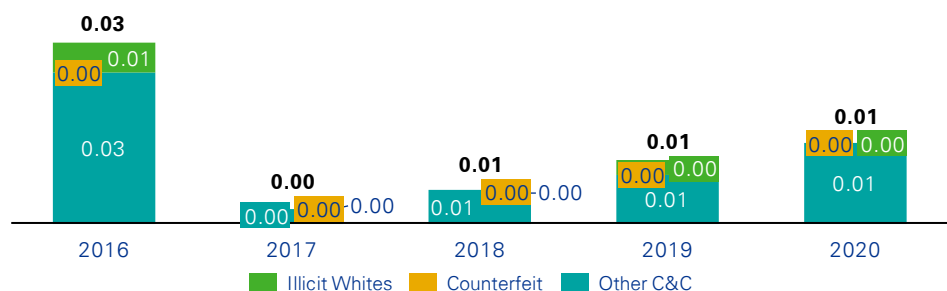


— C&C accounted for 2.8% of the total cigarette consumption in 2020, increasing by 0.6ppt, but still remaining one of the lowest levels in this study

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2016-2020



Breakdown of C&C consumption by type – 2016-2020 (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 2020. For detailed methodology and a list of sources, refer to the methodology section

# Manufactured cigarette consumption, inflows and outflows

## Total manufactured cigarette consumption – 2016-2020

Total Luxembourg Consumption						
Billion cigarettes	2016	2017	2018	2019	2020	2019-20 (%)
Legal Domestic Sales (LDS)	2.81	2.90	3.00	3.31	3.21	(3%)
Outflows	(2.28)	(2.32)	(2.47)	(2.85)	(2.74)	(4%)
Legal Domestic Consumption (LDC)	0.53	0.58	0.53	0.46	0.46	2%
Non-Domestic Legal (ND(L))	0.07	0.04	0.04	0.05	0.05	(6%)
Counterfeit and Contraband (C&C)	0.03	0.00	0.01	0.01	0.01	29%
Total Non-Domestic	0.10	0.04	0.05	0.06	0.06	1%
<b>Total Consumption</b>	<b>0.64</b>	<b>0.62</b>	<b>0.58</b>	<b>0.52</b>	<b>0.52</b>	<b>1%</b>

- Total consumption increased by 1% in 2020
- As Luxembourg is surrounded by higher priced neighbours, outflows are high and represent 86% of total legal sales in 2020
  - Outflows declined in 2020, reversing a longer-term trend of growth against a backdrop of border closures and travel restrictions
- France continues to be the largest outflow destination and has the highest cigarette prices amongst Luxembourg's neighbouring markets
  - Outflows to France declined in 2020 against a backdrop of travel restrictions and a reduction in the legal cigarette allowance for intra-EU travellers to France. The legal limit was changed from 800 to 200 sticks for EU travellers from 31<sup>st</sup> July 2020

## Total inflows by country of origin – 2016-2020

Inflows to Luxembourg					
Billion cigarettes	2016	2017	2018	2019	2020
Belgium	0.01	0.01	0.01	0.02	0.03
Germany	0.01	0.01	0.01	0.01	0.01
France	0.01	0.01	0.01	0.01	0.01
Other	0.07	0.02	0.02	0.02	0.03
<b>Total Inflows</b>	<b>0.10</b>	<b>0.04</b>	<b>0.05</b>	<b>0.06</b>	<b>0.06</b>

## Total outflows by country of origin – 2016-2020

Outflows from Luxembourg					
Billion cigarettes	2016	2017	2018	2019	2020
France	(0.84)	(1.09)	(1.15)	(1.26)	(0.72)
Germany	(0.48)	(0.34)	(0.33)	(0.35)	(0.43)
Belgium	(0.13)	(0.09)	(0.10)	(0.18)	(0.26)
Other	(0.83)	(0.80)	(0.88)	(1.06)	(1.33)
<b>Total Outflows</b>	<b>(2.28)</b>	<b>(2.32)</b>	<b>(2.47)</b>	<b>(2.85)</b>	<b>(2.74)</b>

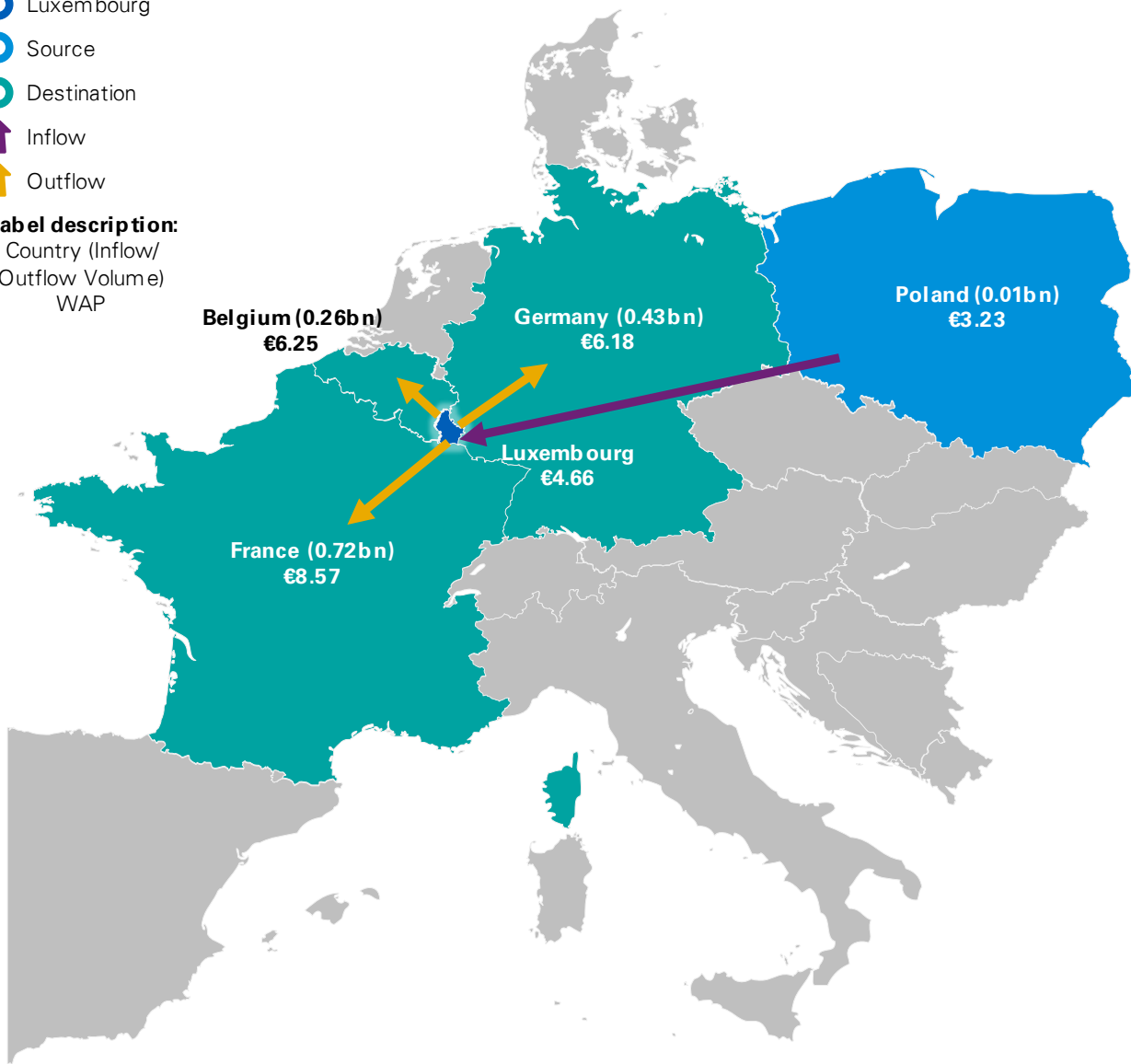
Note: Inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows. Remaining flows are included in the 'Other' category  
 Source: KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section

# Key flows

## Key inflows and outflows<sup>(a)</sup>

- Luxembourg
- Source
- Destination
- Inflow
- Outflow

**Label description:**  
Country (Inflow/  
Outflow Volume)  
WAP

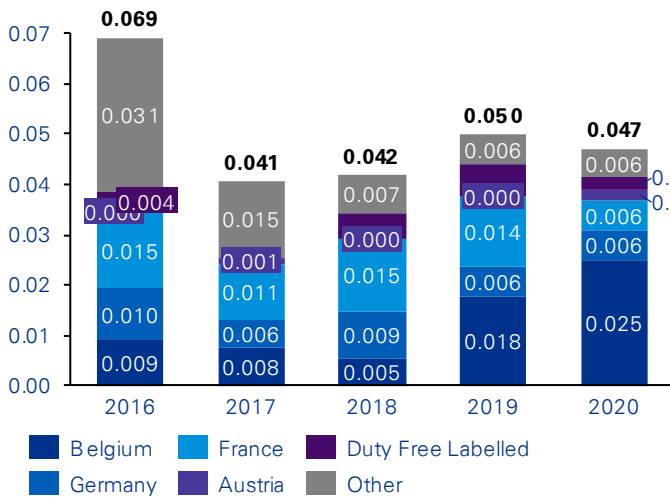


Note: (a) For countries with both inflows and outflows, only the larger of the two flows have been shown

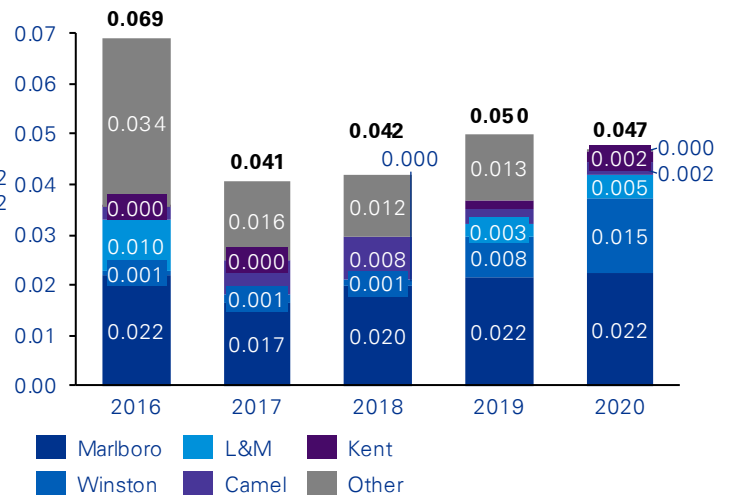
Source: (1) KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section

# ND(L) and C&C flows

**ND(L) by country of origin – 2016-2020 (bn cigarettes)**

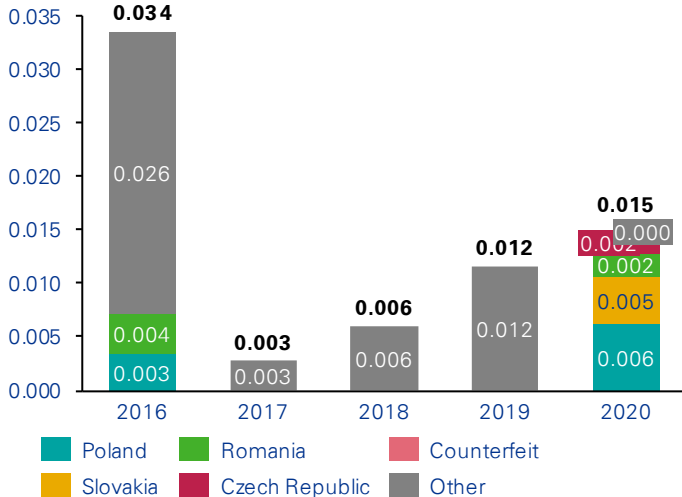


**ND(L) by brand – 2016-2020 (bn cigarettes)**

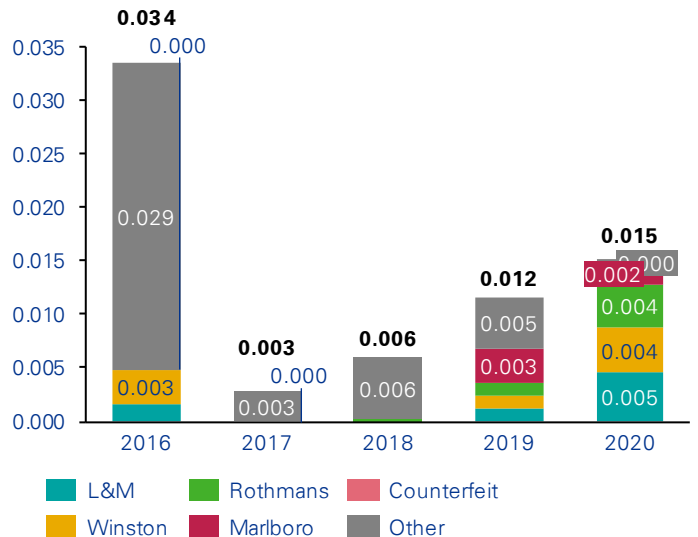


- ND(L) flows remained relatively stable as increasing flows from Belgium were offset by declines from France
- Poland and Slovakia were the main sources of C&C in 2020

**C&C by country of origin – 2016-2020 (bn cigarettes)**



**C&C by brand – 2016-2020 (bn cigarettes)**



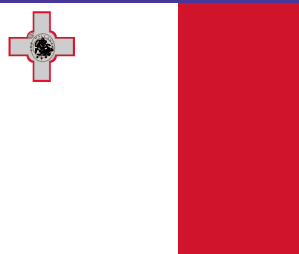
Note: (a) C&C breakdown chart only includes counterfeit volumes related to brands of manufacturers who participate in the empty pack/yellow bag surveys  
 Source: (1) KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section



**KPMG**

Malta





# C&C cigarette consumption and total consumption

0.4bn

Cigarettes consumed



-0.18bn on 2019

0.0bn

C&C cigarettes consumed



-0.02bn on 2019

6.4%

Of total consumption was C&C



-1.49%pts on 2019

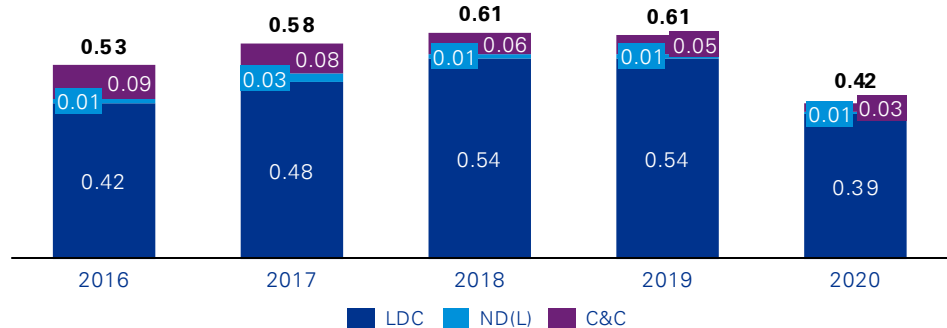
€6m

Estimated total tax revenue lost from C&C



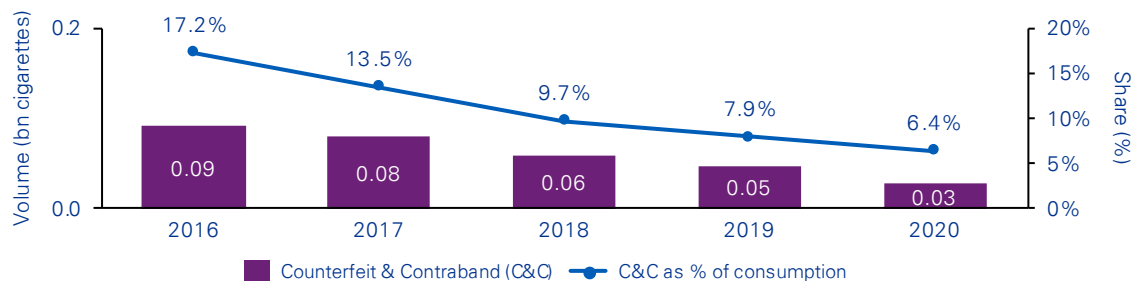
-€4m on 2019

Total consumption – 2016-2020 (bn cigarettes)

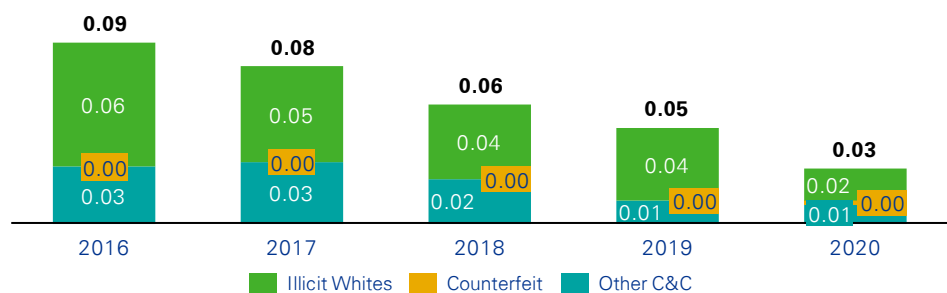


— C&C was 6.4% of total cigarette consumption in 2020, continuing the longer-term declining trend

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2016-2020



Breakdown of C&C consumption by type – 2016-2020 (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 2020. For detailed methodology and a list of sources, refer to the methodology section

# Manufactured cigarette consumption, inflows and outflows

## Total manufactured cigarette consumption – 2016-2020

Total Malta Consumption						
Billion cigarettes	2016	2017	2018	2019	2020	2019-20 (%)
Legal Domestic Sales (LDS)	0.46	0.51	0.59	0.58	0.44	(24%)
Outflows	(0.03)	(0.03)	(0.05)	(0.03)	(0.05)	49%
Legal Domestic Consumption (LDC)	0.42	0.48	0.54	0.54	0.39	(28%)
Non-Domestic Legal (ND(L))	0.01	0.03	0.01	0.01	0.01	(52%)
Counterfeit and Contraband (C&C)	0.09	0.08	0.06	0.05	0.03	(43%)
Total Non-Domestic	0.10	0.10	0.07	0.06	0.03	(45%)
<b>Total Consumption</b>	<b>0.53</b>	<b>0.58</b>	<b>0.61</b>	<b>0.61</b>	<b>0.42</b>	<b>(30%)</b>

- Total cigarette consumption declined in 2020, driven by both declines in legal domestic consumption and non-domestic inflows
- Illicit Whites with no country-specific labelling remained the main source of inflows, and of illicit consumption

## Total inflows by country of origin – 2016-2020

Inflows to Malta					
Billion cigarettes	2016	2017	2018	2019	2020
IWs with no country-specific labelling	0.06	0.05	0.04	0.03	0.02
Duty Free Labelled	0.02	0.02	0.01	0.01	0.01
Poland	0.00	0.00	0.00	0.00	0.00
Other	0.01	0.03	0.02	0.02	0.01
<b>Total Inflows</b>	<b>0.10</b>	<b>0.10</b>	<b>0.07</b>	<b>0.06</b>	<b>0.03</b>

## Total outflows by country of origin – 2016-2020

Outflows from Malta					
Billion cigarettes	2016	2017	2018	2019	2020
UK	(0.01)	(0.01)	(0.01)	(0.00)	(0.03)
France	(0.01)	(0.01)	(0.01)	(0.02)	(0.01)
Netherlands	(0.00)	(0.01)	(0.00)	(0.00)	(0.00)
Other	(0.01)	(0.01)	(0.03)	(0.01)	(0.01)
<b>Total Outflows</b>	<b>(0.03)</b>	<b>(0.03)</b>	<b>(0.05)</b>	<b>(0.03)</b>	<b>(0.05)</b>

Note: Inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows. Remaining flows are included in the 'Other' category  
Source: KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section

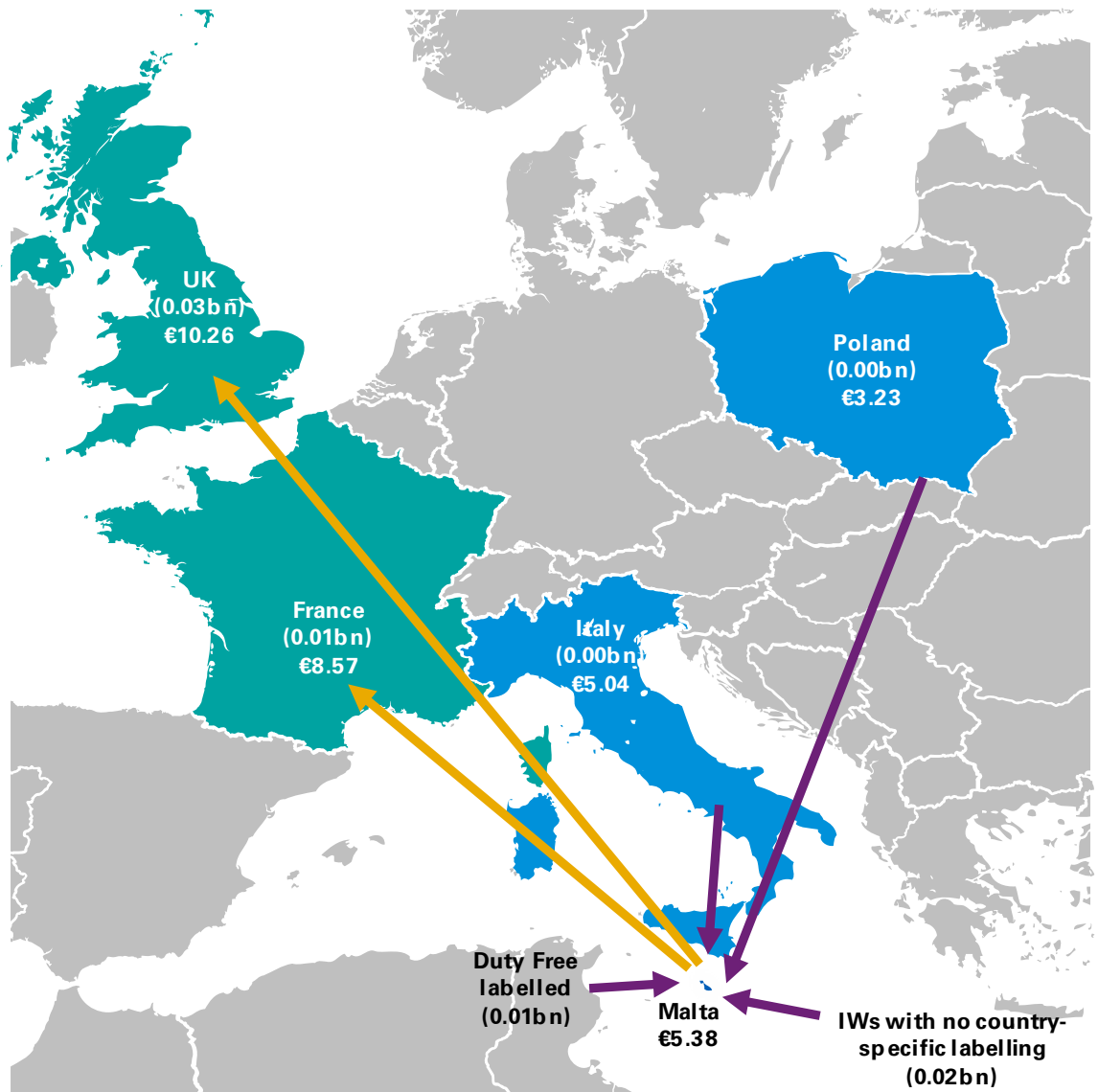


# Key flows

## Key inflows and outflows<sup>(a)</sup>

- Malta
- Source
- Destination
- Inflow
- Outflow

**Label description:**  
Country (Inflow/  
Outflow Volume)  
WAP

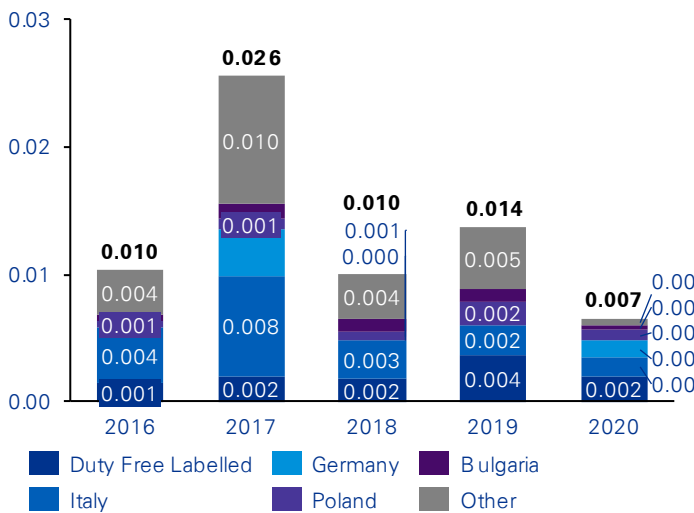


Note: (a) For countries with both inflows and outflows, only the larger of the two flows have been shown

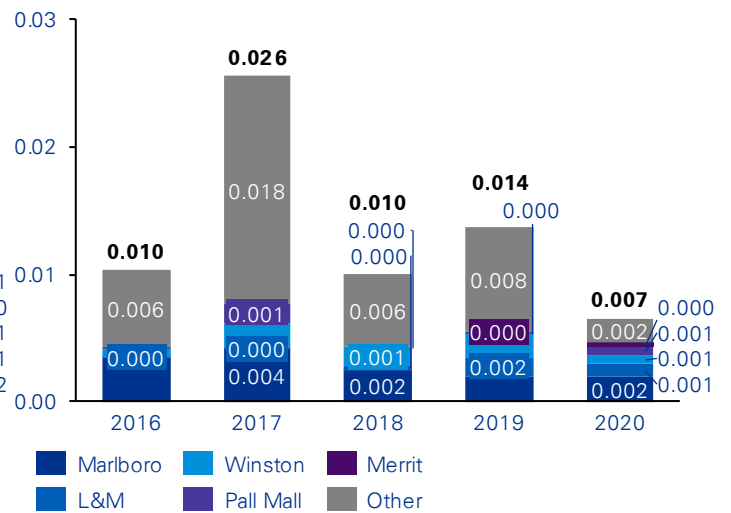
Source: (1) KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section

# ND(L) and C&C flows

**ND(L) by country of origin – 2016-2020 (bn cigarettes)**

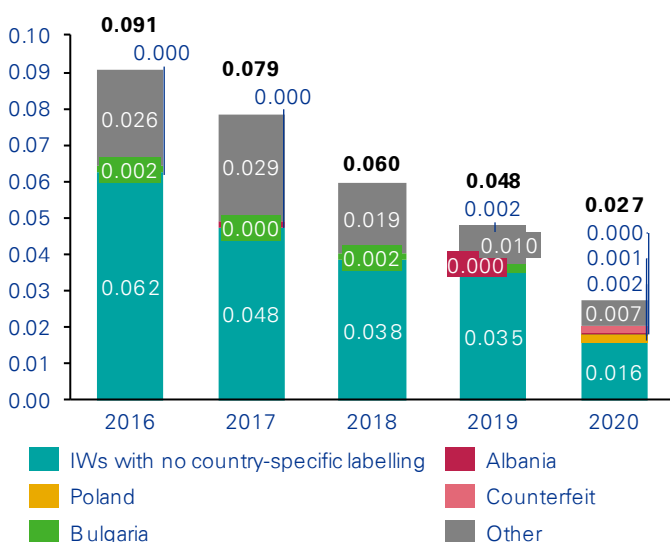


**ND(L) by brand – 2016-2020 (bn cigarettes)**

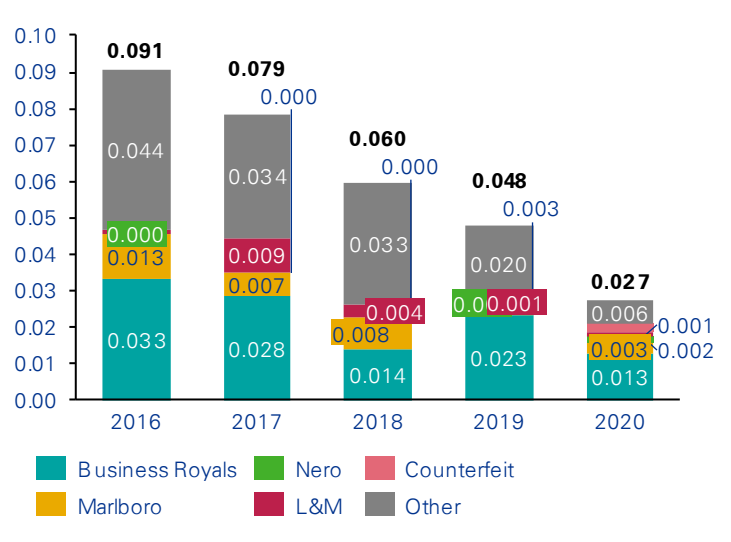


- Non-domestic legal flows declined from the majority of inflow sources in 2020
- Illicit Whites with no country-specific labelling remained the main source of illicit consumption

**C&C by country of origin – 2016-2020 (bn cigarettes)**



**C&C by brand – 2016-2020 (bn cigarettes)**



Note: (a) C&C breakdown chart only includes counterfeit volumes related to brands of manufacturers who participate in the empty pack/yellow bag surveys  
 Source: (1) KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section



# Netherlands



# C&C cigarette consumption and total consumption

11.1bn

Cigarettes consumed



-0.70bn on 2019

0.7bn

C&C cigarettes consumed



+0.05bn on 2019

6.2%

Of total consumption was C&C



+0.82%pts on 2019

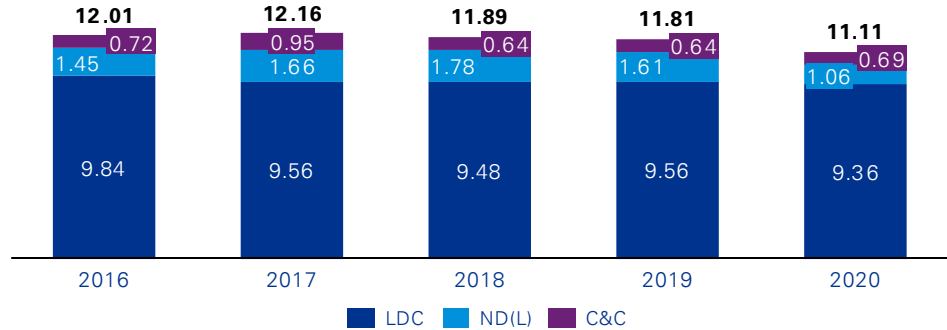
€201m

Estimated total tax revenue lost from C&C



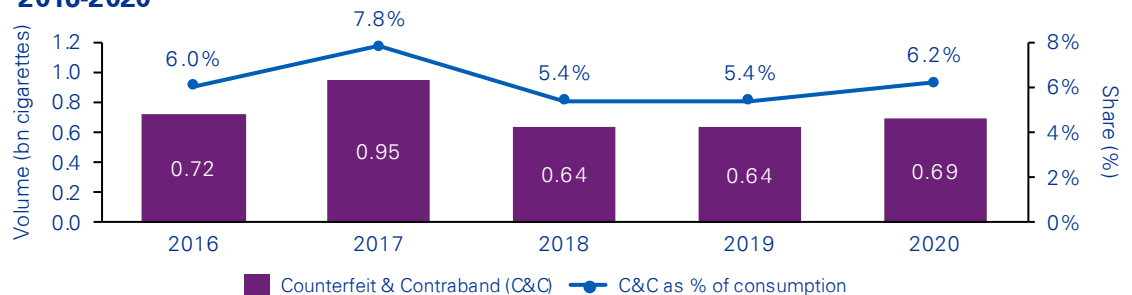
+46m on 2019

Total consumption – 2016-2020 (bn cigarettes)

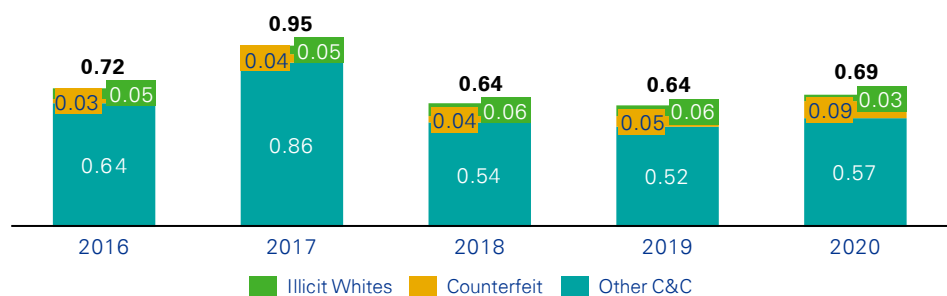


— C&C increased to 6.2% of total consumption in 2020, or 0.69bn cigarettes

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2016-2020



Breakdown of C&C consumption by type – 2016-2020 (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 2020. For detailed methodology and a list of sources, refer to the methodology section

# Manufactured cigarette consumption, inflows and outflows

## Total manufactured cigarette consumption – 2016-2020

Total Netherlands Consumption						
Billion cigarettes	2016	2017	2018	2019	2020	2019-20 (%)
Legal Domestic Sales (LDS)	10.14	9.89	9.92	9.84	9.56	(3%)
Outflows	(0.30)	(0.33)	(0.45)	(0.29)	(0.20)	(30%)
Legal Domestic Consumption (LDC)	9.84	9.56	9.48	9.56	9.36	(2%)
Non-Domestic Legal (ND(L))	1.45	1.66	1.78	1.61	1.06	(34%)
Counterfeit and Contraband (C&C)	0.72	0.95	0.64	0.64	0.69	8%
Total Non-Domestic	2.17	2.61	2.42	2.25	1.75	(22%)
<b>Total Consumption</b>	<b>12.01</b>	<b>12.16</b>	<b>11.89</b>	<b>11.81</b>	<b>11.11</b>	<b>(6%)</b>

- Total consumption declined by 6% as both legal domestic consumption and non-domestic inflows declined
- The neighbouring lower-priced markets of Belgium and Germany were the largest sources of inflows in 2020, albeit there were a number of changes in the major inflows:
  - Germany and Duty Free inflows declined, as did smaller inflows from various other countries (included under 'Other')
  - Belgium, France and Bulgaria inflows increased
- Due to relatively high cigarette prices, outflows from Netherlands are usually low. They declined by 30% in 2020

## Total inflows by country of origin – 2016-2020

Inflows to Netherlands					
Billion cigarettes	2016	2017	2018	2019	2020
Belgium	0.37	0.15	0.18	0.21	0.34
Germany	0.20	0.26	0.35	0.38	0.22
France	0.08	0.15	0.10	0.08	0.16
Duty Free Labelled	0.43	0.48	0.37	0.35	0.14
Bulgaria	0.06	0.04	0.05	0.05	0.10
Other	1.04	1.53	1.36	1.18	0.79
<b>Total Inflows</b>	<b>2.17</b>	<b>2.61</b>	<b>2.42</b>	<b>2.25</b>	<b>1.75</b>

## Total outflows by country of origin – 2016-2020

Outflows from Netherlands					
Billion cigarettes	2016	2017	2018	2019	2020
Germany	(0.10)	(0.08)	(0.08)	(0.08)	(0.06)
Belgium	(0.06)	(0.04)	(0.20)	(0.07)	(0.06)
France	(0.04)	(0.05)	(0.05)	(0.04)	(0.03)
Poland	(0.01)	(0.01)	(0.01)	(0.01)	(0.03)
Other	(0.10)	(0.16)	(0.11)	(0.08)	(0.02)
<b>Total Outflows</b>	<b>(0.30)</b>	<b>(0.33)</b>	<b>(0.45)</b>	<b>(0.29)</b>	<b>(0.20)</b>

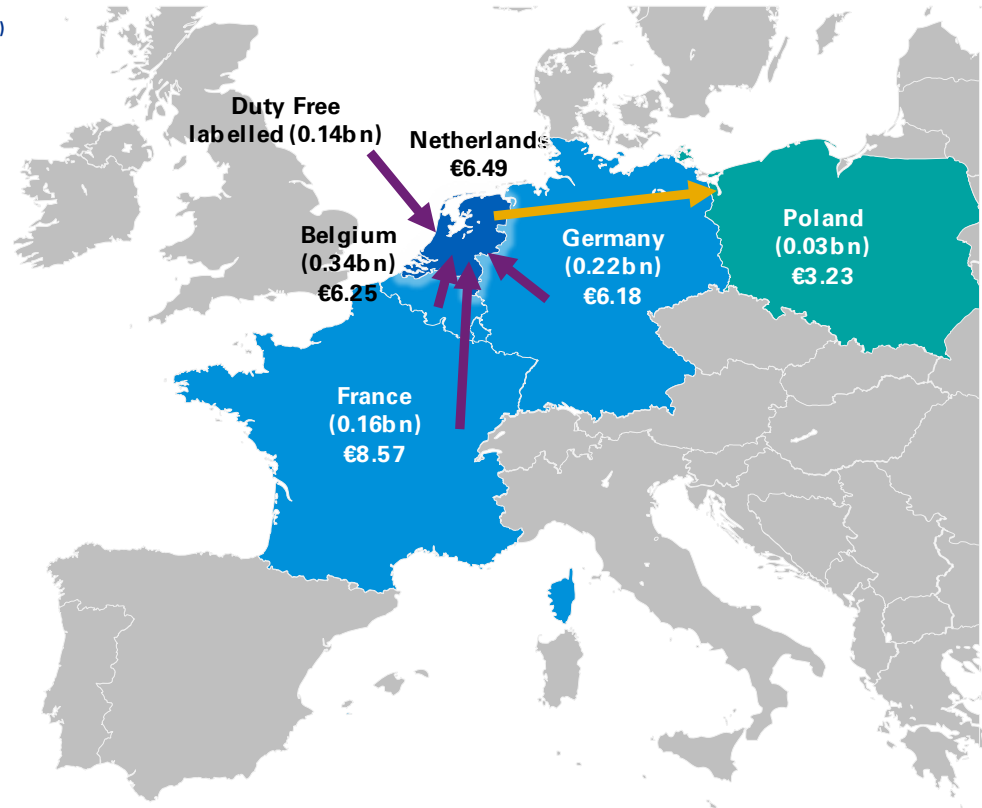
Note: Inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows. Remaining flows are included in the 'Other' category  
 Source: KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section

# Key flows and C&C consumption patterns

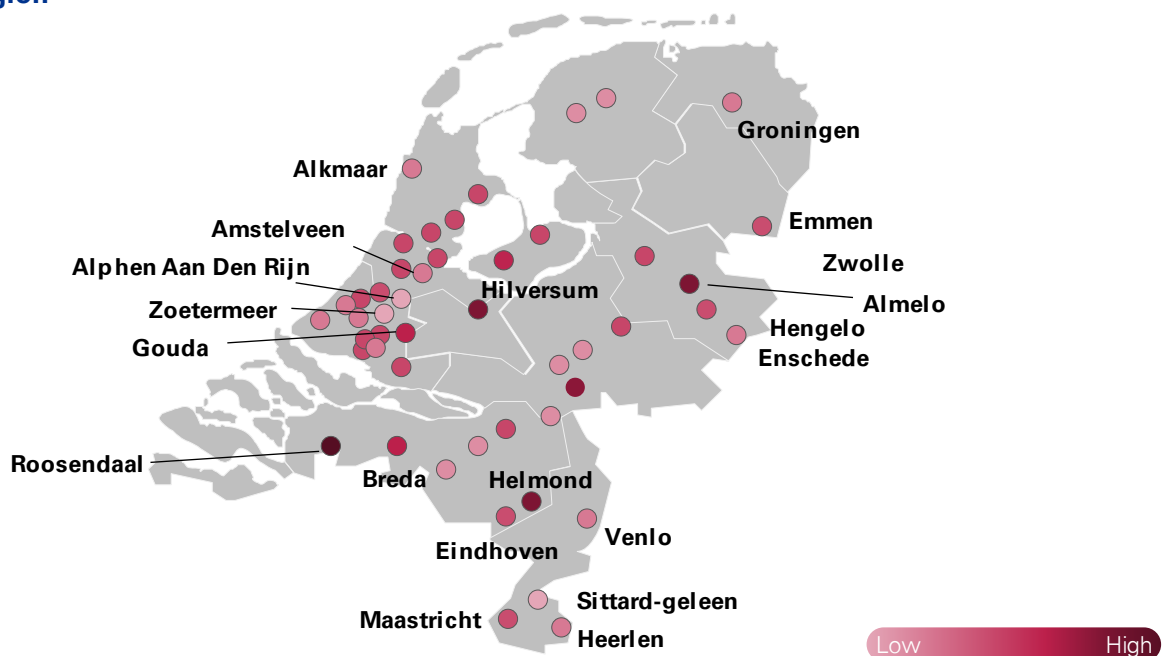
## Key inflows and outflows<sup>(a)</sup>

- Netherlands
- Source
- Destination
- Inflow
- Outflow

**Label description:**  
Country (Inflow/  
Outflow Volume)  
WAP



## C&C % by region<sup>(b)(c)</sup>



Note: (a) For countries with both inflows and outflows, only the larger of the two flows have been shown (b) C&C scale is relative to this market and is not comparable with other markets in the study, (c) Data not available for regions in grey

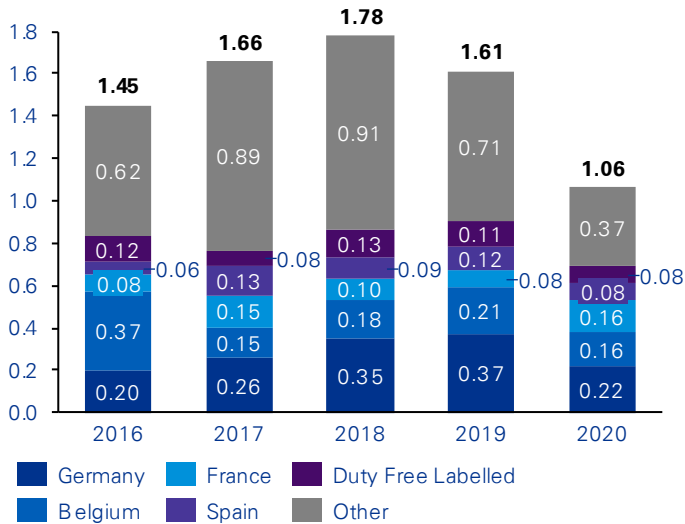
Source: (1) KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section



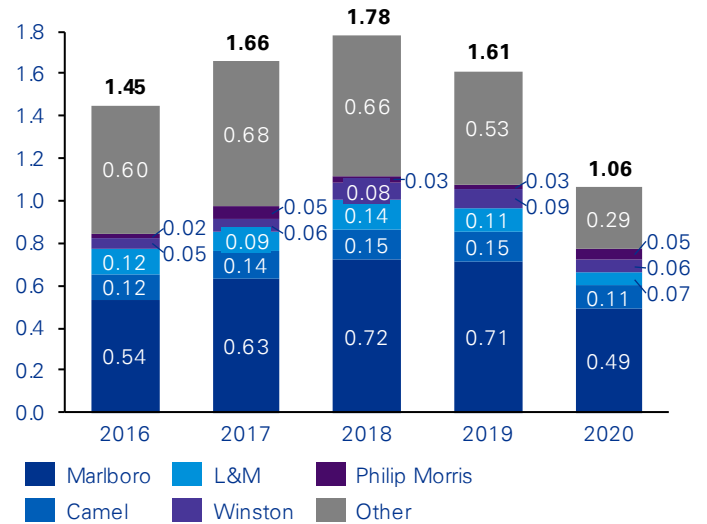
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# ND(L) and C&C flows

**ND(L) by country of origin – 2016-2020 (bn cigarettes)**

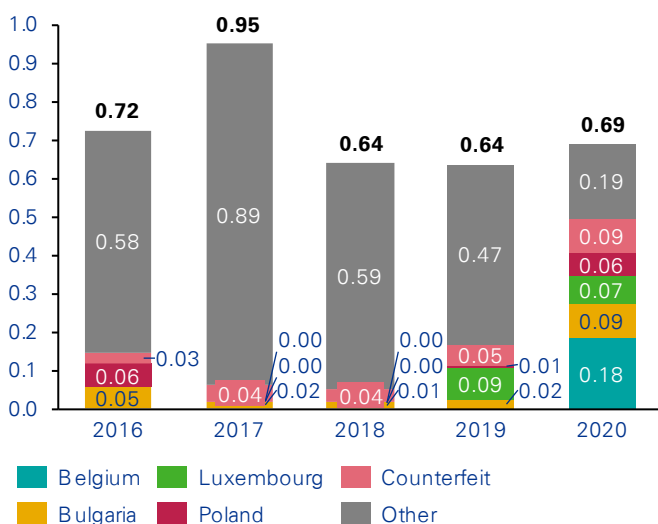


**ND(L) by brand – 2016-2020 (bn cigarettes)**

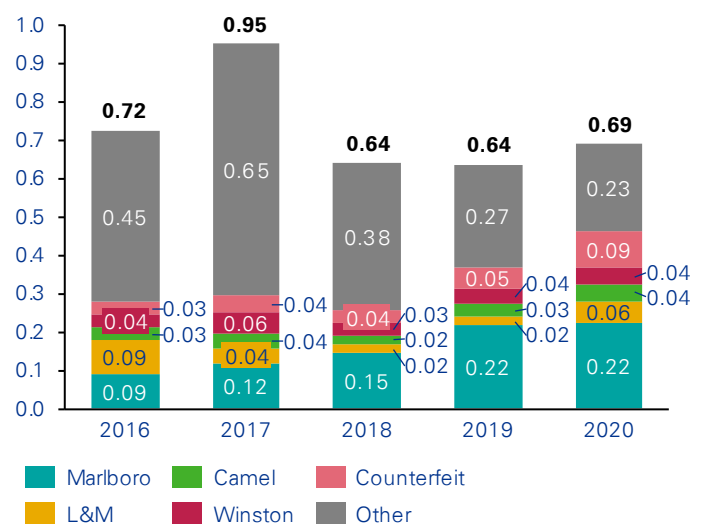


- ND(L) declined by 34% in 2020, with the largest market-specific decline in flows from Germany
- C&C from Belgium increased in 2019 as travel volumes were not sufficient to account for the increased inflow
- Counterfeit continued its long term increasing trend, rising to 0.09bn cigarettes
- The highest levels of C&C in 2020 were recorded in the cities of Roosendaal, Almelo, Helmond and Hilversum

**C&C by country of origin – 2016-2020 (bn cigarettes)**



**C&C by brand – 2016-2020 (bn cigarettes)**



Note: (a) C&C breakdown chart only includes counterfeit volumes related to brands of manufacturers who participate in the empty pack/yellow bag surveys  
 Source: (1) KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section

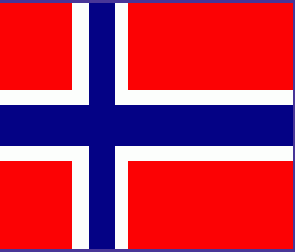


**KPMG**

# Norway







# C&C cigarette consumption and total consumption

2.3bn

Cigarettes consumed



+0.13bn on 2019

0.2bn

C&C cigarettes consumed



-0.07bn on 2019

10.1%

Of total consumption was C&C



-3.86%pts on 2019

€92m

(NOK 977m)<sup>(1)</sup>

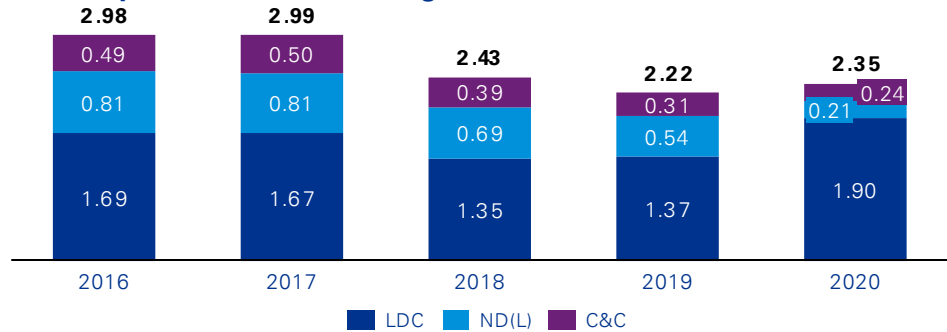
Estimated total tax revenue lost from C&C



-€37m on 2019

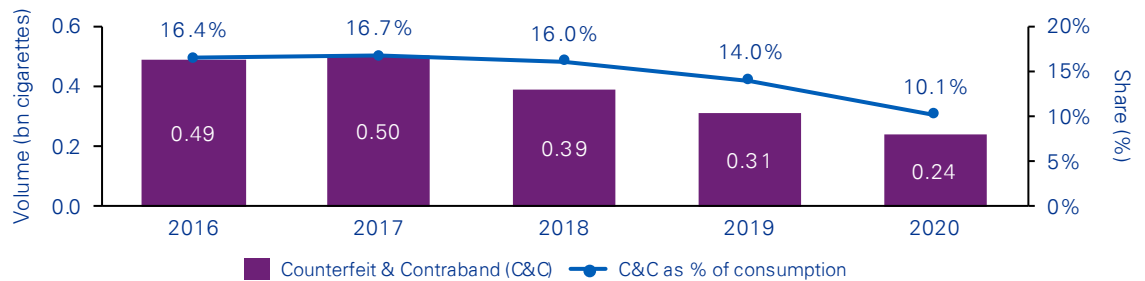


Total consumption – 2016-2020 (bn cigarettes)

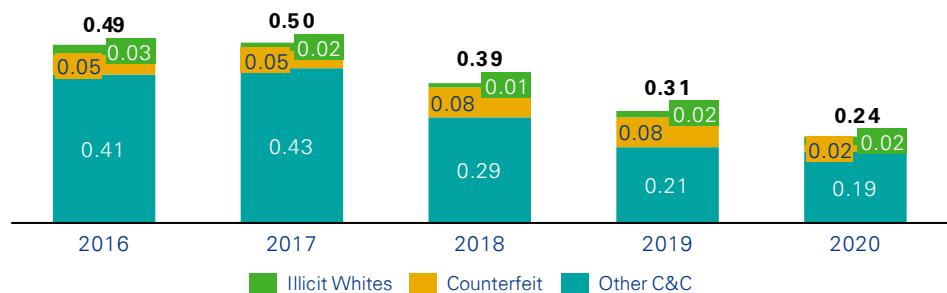


— C&C declined to 10.1% of total consumption in 2020, the lowest level observed in the reporting period, driven by declining Counterfeit and Other C&C

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2016-2020



Breakdown of C&C consumption by type – 2016-2020 (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

Sources: (1) EUR 1 = NOK 10.56, InforEuro, European Commission, December 2020; (2) KPMG EU Flows Calculation 2020. 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 – 2016-2020

Total Norway Consumption						
Billion cigarettes	2016	2017	2018	2019	2020	2019-20 (%)
Legal Domestic Sales (LDS)	1.72	1.72	1.39	1.41	1.91	36%
Outflows	(0.04)	(0.05)	(0.03)	(0.04)	(0.01)	(67%)
Legal Domestic Consumption (LDC)	1.69	1.67	1.35	1.37	1.90	39%
Non-Domestic Legal (ND(L))	0.81	0.81	0.69	0.54	0.21	(61%)
Counterfeit and Contraband (C&C)	0.49	0.50	0.39	0.31	0.24	(23%)
Total Non-Domestic	1.30	1.31	1.08	0.85	0.45	(47%)
<b>Total Consumption</b>	<b>2.98</b>	<b>2.99</b>	<b>2.43</b>	<b>2.22</b>	<b>2.35</b>	<b>6%</b>

- Total cigarette consumption increased by 6% in 2020, as increasing legal domestic sales were partly offset by decreasing non-domestic consumption
- Duty Free remains the largest sources of non-domestic inflows, albeit declining in 2020
- Inflows from Poland increased in 2020
- As one of the highest priced markets in Europe, outflows from Norway are low

## Total inflows by country of origin – 2016-2020

Inflows to Norway					
Billion cigarettes	2016	2017	2018	2019	2020
Duty Free Labelled	0.40	0.40	0.34	0.28	0.16
Poland	0.07	0.09	0.09	0.06	0.12
Lithuania	0.09	0.09	0.05	0.05	0.02
Belarus	0.01	0.02	0.01	0.00	0.02
Sweden	0.30	0.31	0.21	0.16	0.02
Other	0.43	0.40	0.38	0.28	0.11
<b>Total Inflows</b>	<b>1.30</b>	<b>1.31</b>	<b>1.08</b>	<b>0.85</b>	<b>0.45</b>

## Total outflows by country of origin – 2016-2020

Outflows from Norway					
Billion cigarettes	2016	2017	2018	2019	2020
Poland	(0.00)	(0.00)	0.00	(0.00)	(0.00)
UK	(0.01)	(0.01)	(0.01)	0.00	(0.00)
Sweden	(0.01)	(0.01)	(0.01)	(0.00)	(0.00)
Other	(0.01)	(0.02)	(0.02)	(0.04)	(0.00)
<b>Total Outflows</b>	<b>(0.04)</b>	<b>(0.05)</b>	<b>(0.03)</b>	<b>(0.04)</b>	<b>(0.01)</b>

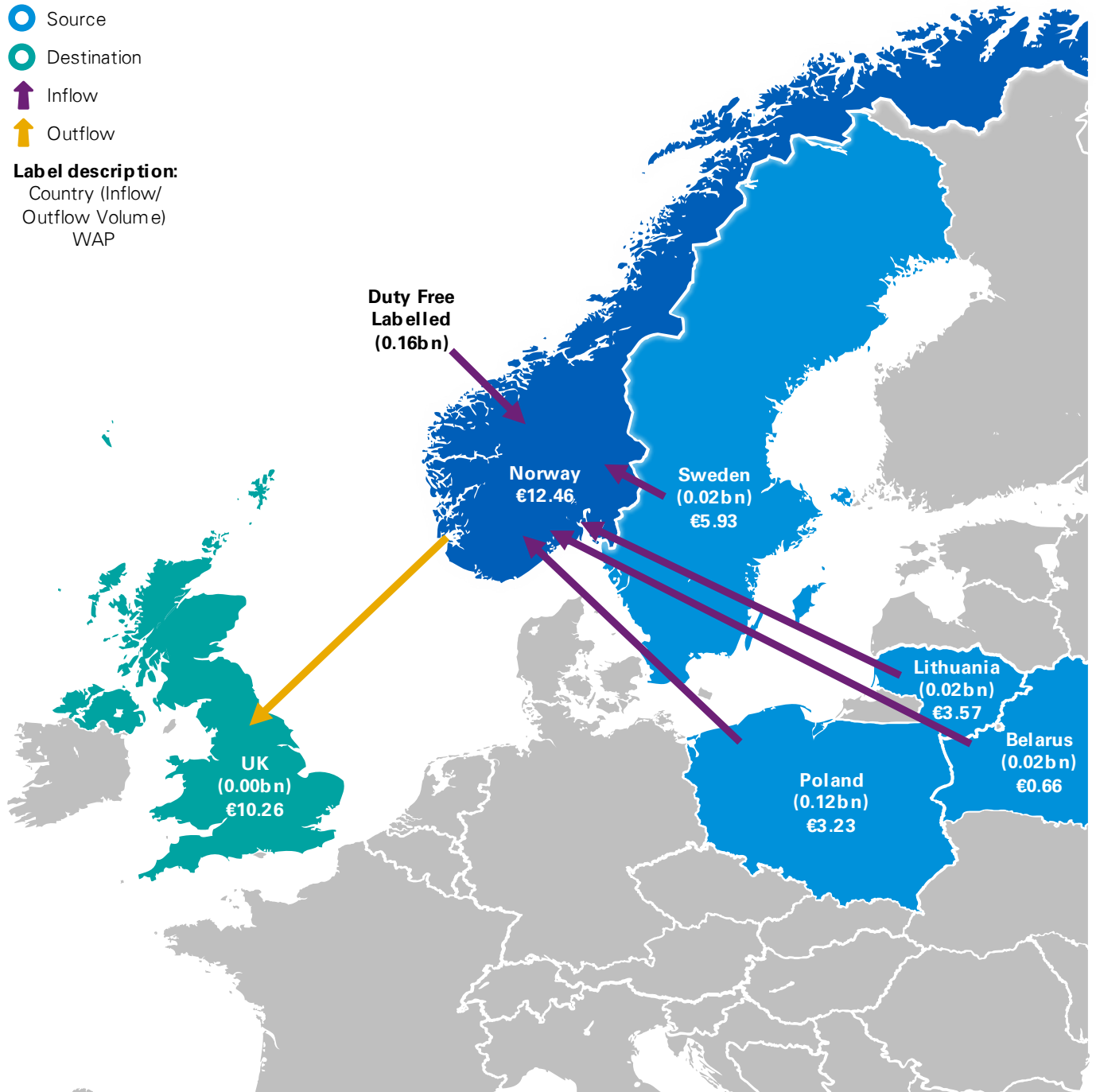
Note: Inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows. Remaining flows are included in the 'Other' category  
 Source: KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section

# Key flows

## Key inflows and outflows<sup>(a)</sup>

- Norway
- Source
- Destination
- Inflow
- Outflow

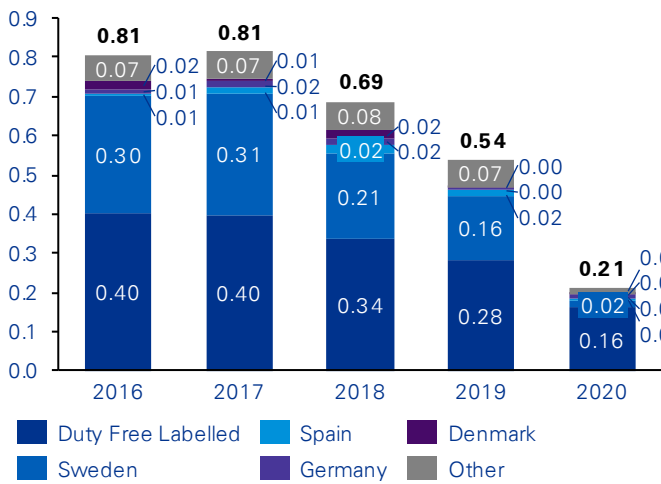
**Label description:**  
 Country (Inflow/  
 Outflow Volume)  
 WAP



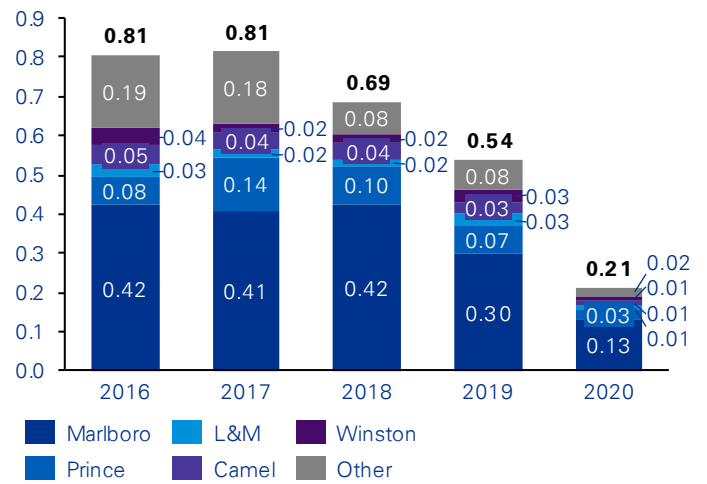
Note: (a) For countries with both inflows and outflows, only the larger of the two flows have been shown  
 Source: (1) KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section

# ND(L) and C&C flows

**ND(L) by country of origin – 2016-2020 (bn cigarettes)**



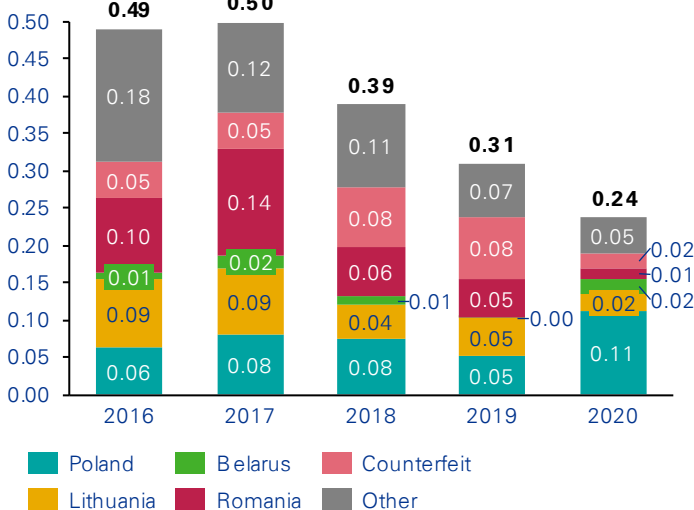
**ND(L) by brand – 2016-2020 (bn cigarettes)**



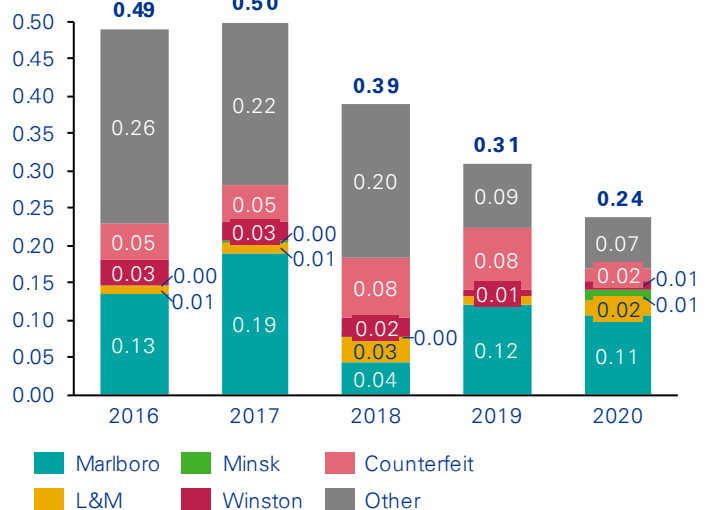
— Legal inflow (ND(L)) decline was largely driven by Duty Free and Sweden

— Within C&C, declining inflows from Counterfeit, Romania and Lithuania were partly offset by an increase from Poland

**C&C by country of origin – 2016-2020 (bn cigarettes)**



**C&C by brand – 2016-2020 (bn cigarettes)**



Note: (a) C&C breakdown chart only includes counterfeit volumes related to brands of manufacturers who participate in the empty pack/yellow bag surveys  
 Source: (1) KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section



**KPMG**

Poland



# C&C cigarette consumption and total consumption

40.6bn

Cigarettes consumed



-1.66bn on 2019

3.5bn

C&C cigarettes consumed



-0.09bn on 2019

8.6%

Of total consumption was C&C



+0.13%pts on 2019

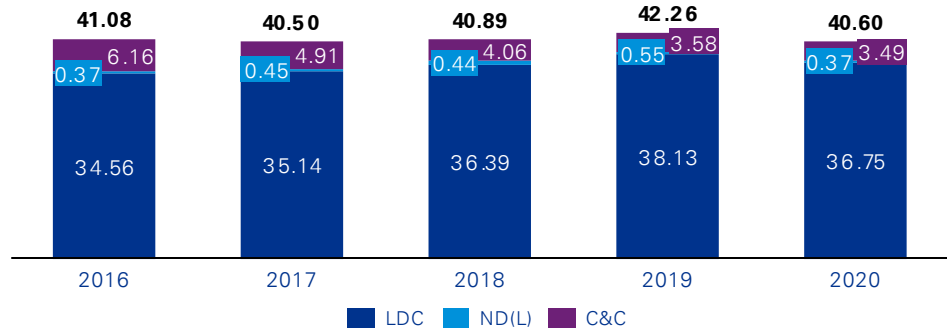
€468m

Estimated total tax revenue lost from C&C



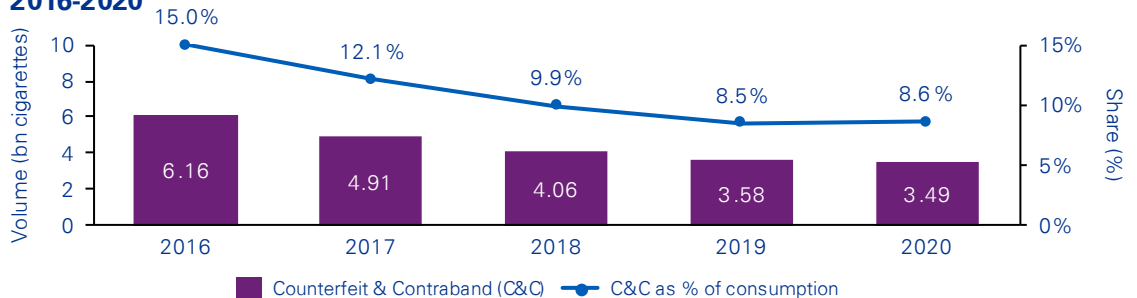
+€3m on 2019

Total consumption – 2016-2020 (bn cigarettes)

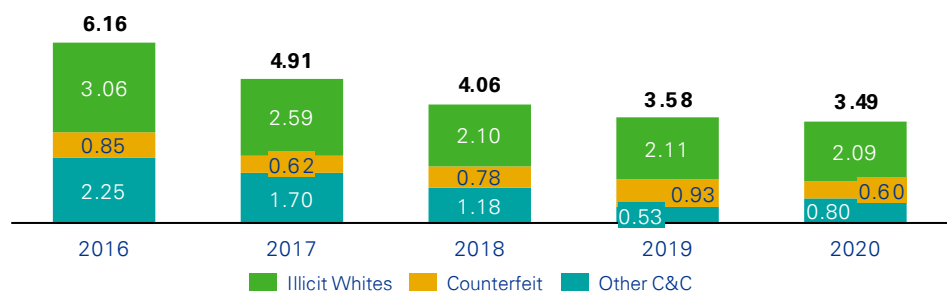


- C&C accounted for 8.6% of total cigarette consumption in 2020, a small increase from 8.5% in 2019
- Illicit Whites and Counterfeit declined in 2020, partially offset by an increase in Other C&C
- Illicit Whites formed 60% of total C&C

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2016-2020



Breakdown of C&C consumption by type – 2016-2020 (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

Sources: KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section (1) Euromonitor as on May 2021 (2) In Market sales data

# Manufactured cigarette consumption, inflows and outflows

## Total manufactured cigarette consumption – 2016-2020

Total Poland Consumption						
Billion cigarettes	2016	2017	2018	2019	2020	2019-20 (%)
Legal Domestic Sales (LDS)	41.33	41.59	42.85	44.99	43.17	(4%)
Outflows	(6.78)	(6.44)	(6.46)	(6.85)	(6.42)	(6%)
Legal Domestic Consumption (LDC)	34.56	35.14	36.39	38.13	36.75	(4%)
Non-Domestic Legal (ND(L))	0.37	0.45	0.44	0.55	0.37	(33%)
Counterfeit and Contraband (C&C)	6.16	4.91	4.06	3.58	3.49	(2%)
Total Non-Domestic	6.53	5.35	4.50	4.12	3.85	(7%)
<b>Total Consumption</b>	<b>41.08</b>	<b>40.50</b>	<b>40.89</b>	<b>42.26</b>	<b>40.60</b>	<b>(4%)</b>

- Total cigarette consumption decreased by 4% in 2020, as both legal domestic consumption and non-domestic inflows declined, reversing an increasing total consumption trend since 2017
  - This total cigarette consumption decline coincides with an increase in the adoption of other nicotine products such as e-cigarettes, fine cut and HnB<sup>(1)(2)</sup>
- Neighbouring Belarus and Ukraine remain the largest country-specific inflows, both of which increased in 2020
  - Part of this increase is driven by Illicit White brands that in prior years bore no country-specific labelling being increasingly labelled as from Belarus or Ukraine in 2020
  - This dynamic is also evident in the decline in Illicit Whites with no country-specific labelling
- Germany and UK remained the largest outflow markets. The flows to both declined in 2020

## Total inflows by country of origin – 2016-2020

Inflows to Poland						
Billion cigarettes	2016	2017	2018	2019	2020	
Belarus	2.09	1.83	1.30	1.08	1.52	
Ukraine	2.10	1.51	0.86	0.55	0.88	
Counterfeit	0.85	0.62	0.78	0.93	0.60	
IWs with no country-specific labelling	0.94	0.78	0.86	0.96	0.33	
Other	0.54	0.61	0.70	0.60	0.54	
<b>Total Inflows</b>	<b>6.53</b>	<b>5.35</b>	<b>4.50</b>	<b>4.12</b>	<b>3.86</b>	

## Total outflows by country of origin – 2016-2020

Outflows from Poland						
Billion cigarettes	2016	2017	2018	2019	2020	
Germany	(4.57)	(4.46)	(4.20)	(4.94)	(4.66)	
UK	(1.51)	(1.39)	(1.51)	(1.14)	(1.03)	
Other	(0.69)	(0.60)	(0.75)	(0.77)	(0.73)	
<b>Total Outflows</b>	<b>(6.78)</b>	<b>(6.44)</b>	<b>(6.46)</b>	<b>(6.85)</b>	<b>(6.42)</b>	

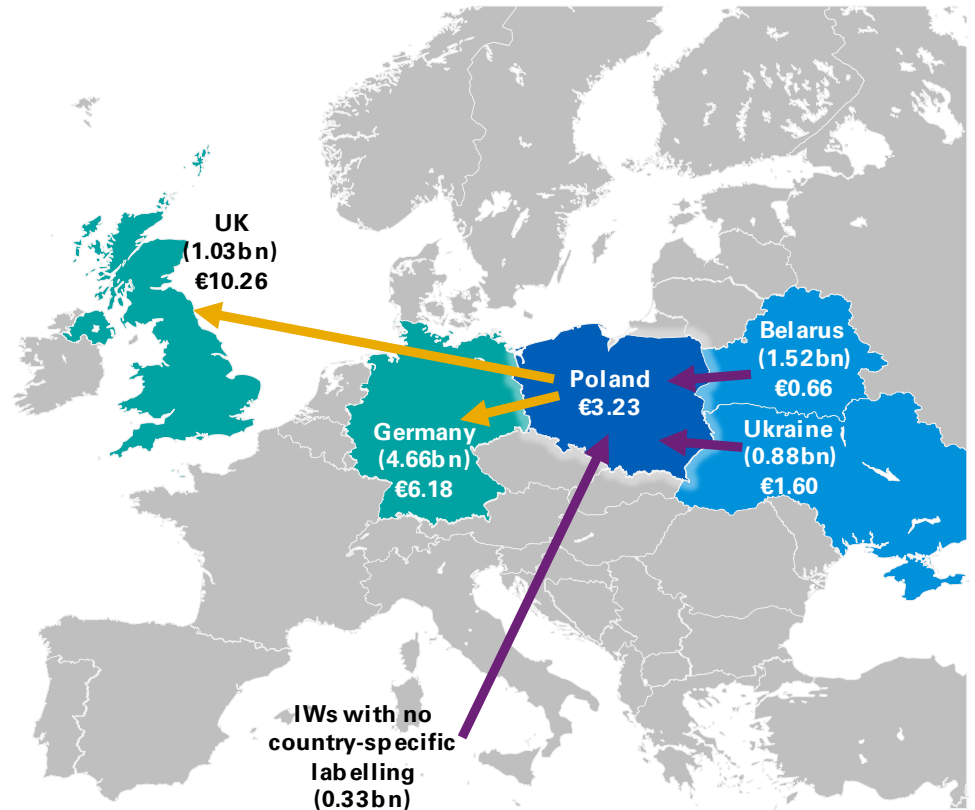
Note: Inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows. Remaining flows are included in the 'Other' category. Sources: (1) Euromonitor as on May 2021 (2) In Market sales data (3) KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section

# Key flows and C&C consumption patterns

## Key inflows and outflows<sup>(a)</sup>

- Poland
- Source
- Destination
- Inflow
- Outflow

**Label description:**  
Country (Inflow/  
Outflow Volume)  
WAP



## C&C % by region<sup>(b)(c)</sup>



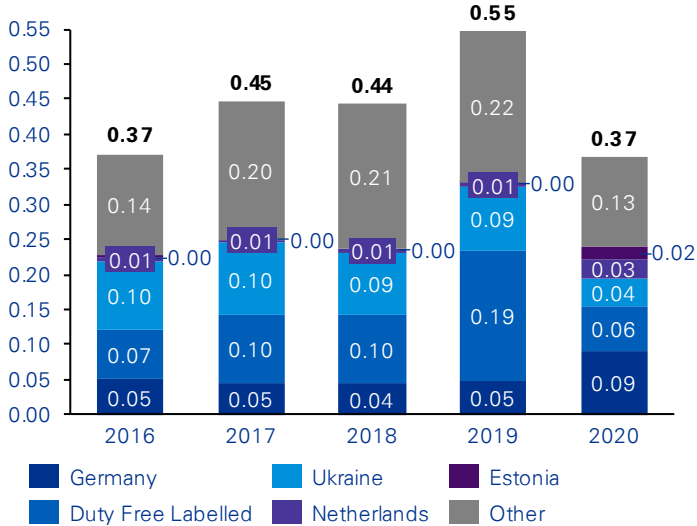
Note: (a) For countries with both inflows and outflows, only the larger of the two flows have been shown (b) C&C scale is relative to this market and is not comparable with other markets in the study, (c) Data not available for regions in grey

Source: (1) KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section

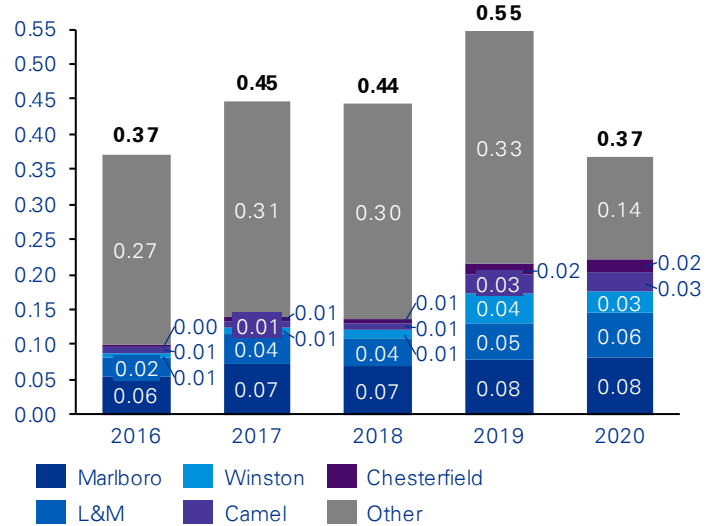


# ND(L) and C&C flows

**ND(L) by country of origin – 2016-2020 (bn cigarettes)**

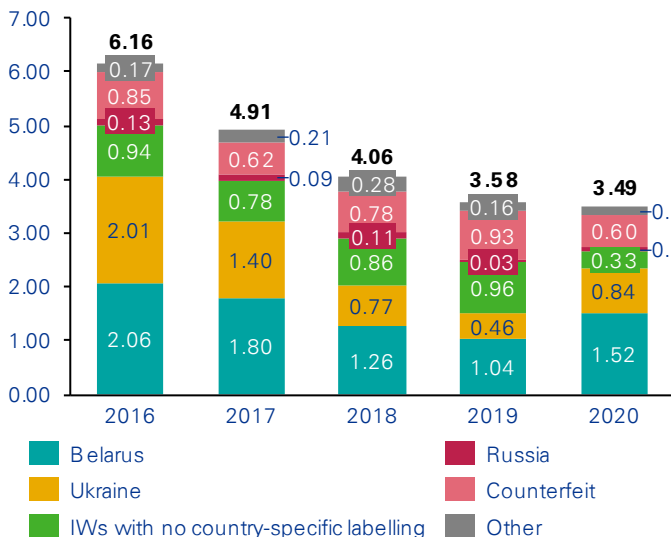


**ND(L) by brand – 2016-2020 (bn cigarettes)**

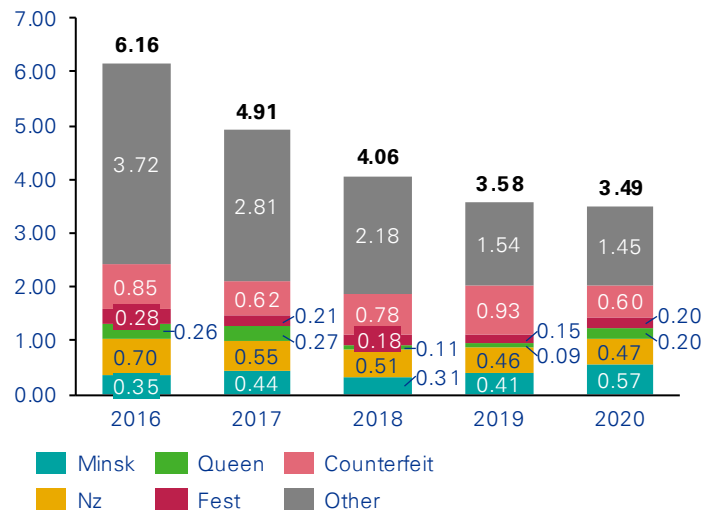


- Inflows from Belarus and Ukraine are considered predominately illicit as volumes that can be legally imported are low due to a 40 cigarette limit per land traveller
- Counterfeit declined to 0.6bn in 2020, reaching the lowest level in the reporting period
- The highest levels of C&C were recorded in the Podlaskie region bordering Belarus

**C&C by country of origin – 2016-2020 (bn cigarettes)**



**C&C by brand – 2016-2020 (bn cigarettes)**



Note: (a) C&C breakdown chart only includes counterfeit volumes related to brands of manufacturers who participate in the empty pack/yellow bag surveys

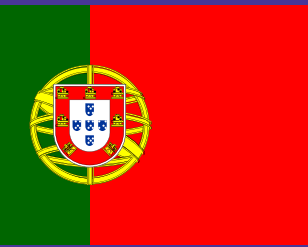
Source: (1) KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section



**KPMG**

# Portugal





# C&C cigarette consumption and total consumption

9.1bn

Cigarettes consumed



-1.00bn on 2019

0.4bn

C&C cigarettes consumed



-0.16bn on 2019

4.4%

Of total consumption was C&C



-1.20%pts on 2019

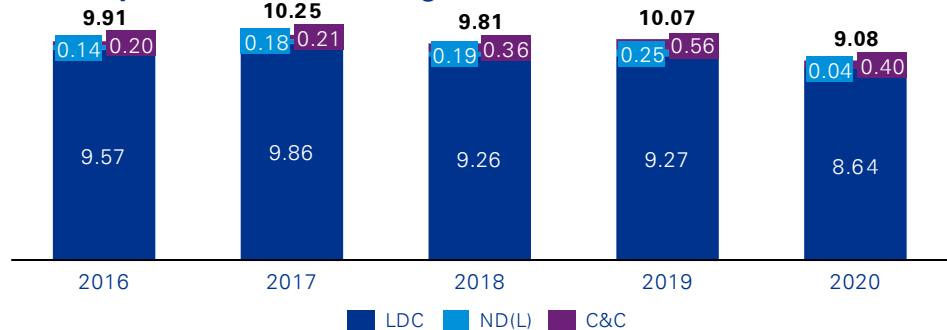
€70m

Estimated total tax revenue lost from C&C



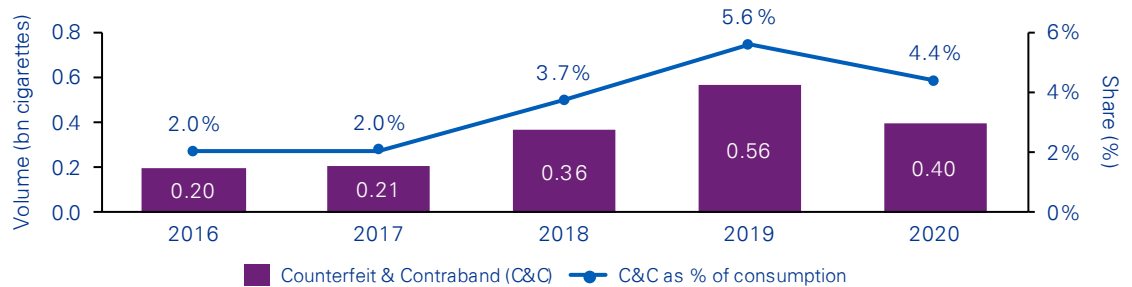
-€27m on 2019

Total consumption – 2016-2020 (bn cigarettes)

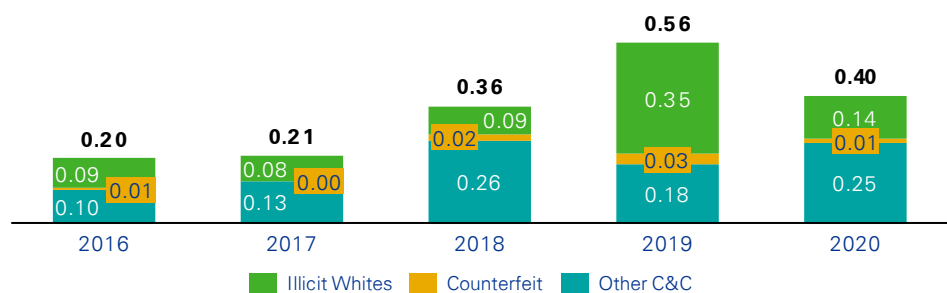


- C&C cigarette consumption decreased in 2020 to 4.4%, reversing a growing trend since 2017
- Declining C&C was primarily driven by reduced inflows of Illicit Whites and a smaller reduction in Counterfeit inflows, partly offset by a rise in Other C&C

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2016-2020



Breakdown of C&C consumption by type – 2016-2020 (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 2020. For detailed methodology and a list of sources, refer to the methodology section

# Manufactured cigarette consumption, inflows and outflows

## Total manufactured cigarette consumption – 2016-2020

Total Portugal Consumption						
Billion cigarettes	2016	2017	2018	2019	2020	2019-20 (%)
Legal Domestic Sales (LDS)	10.06	10.23	9.68	9.77	8.99	(8%)
Outflows	(0.49)	(0.37)	(0.42)	(0.51)	(0.35)	(31%)
Legal Domestic Consumption (LDC)	9.57	9.86	9.26	9.27	8.64	(7%)
Non-Domestic Legal (ND(L))	0.14	0.18	0.19	0.25	0.04	(85%)
Counterfeit and Contraband (C&C)	0.20	0.21	0.36	0.56	0.40	(29%)
Total Non-Domestic	0.34	0.39	0.56	0.81	0.43	(46%)
<b>Total Consumption</b>	<b>9.91</b>	<b>10.25</b>	<b>9.81</b>	<b>10.07</b>	<b>9.08</b>	<b>(10%)</b>

- Total cigarette consumption decreased by 10% in 2020, with decreases in both legal domestic sales and non-domestic inflows
- Non-domestic inflows declined in 2020, principally driven by a decline in Illicit Whites with no country-specific label and flows from smaller source countries within the 'Other' category
- Inflows from Unspecified origins and Gibraltar increased in 2020
- France and the UK remained the largest outflow markets from Portugal, accounting for 77% of the total outflows. These are countries from which Portugal is a popular holiday destination

## Total inflows by country of origin – 2016-2020

Inflows to Portugal					
Billion cigarettes	2016	2017	2018	2019	2020
IWs with no country-specific labelling	0.05	0.11	0.14	0.31	0.13
Andorra	0.00	0.01	0.08	0.09	0.09
Unspecified	0.03	0.00	0.01	0.00	0.09
Gibraltar	0.00	0.00	0.00	0.00	0.05
Other	0.25	0.26	0.32	0.40	0.07
<b>Total Inflows</b>	<b>0.34</b>	<b>0.39</b>	<b>0.56</b>	<b>0.81</b>	<b>0.43</b>

## Total outflows by country of origin – 2016-2020

Outflows from Portugal					
Billion cigarettes	2016	2017	2018	2019	2020
France	(0.28)	(0.13)	(0.24)	(0.22)	(0.20)
UK	(0.07)	(0.08)	(0.04)	(0.13)	(0.07)
Netherlands	(0.02)	(0.02)	(0.02)	(0.03)	(0.01)
Other	(0.12)	(0.13)	(0.12)	(0.13)	(0.07)
<b>Total Outflows</b>	<b>(0.49)</b>	<b>(0.37)</b>	<b>(0.42)</b>	<b>(0.51)</b>	<b>(0.35)</b>

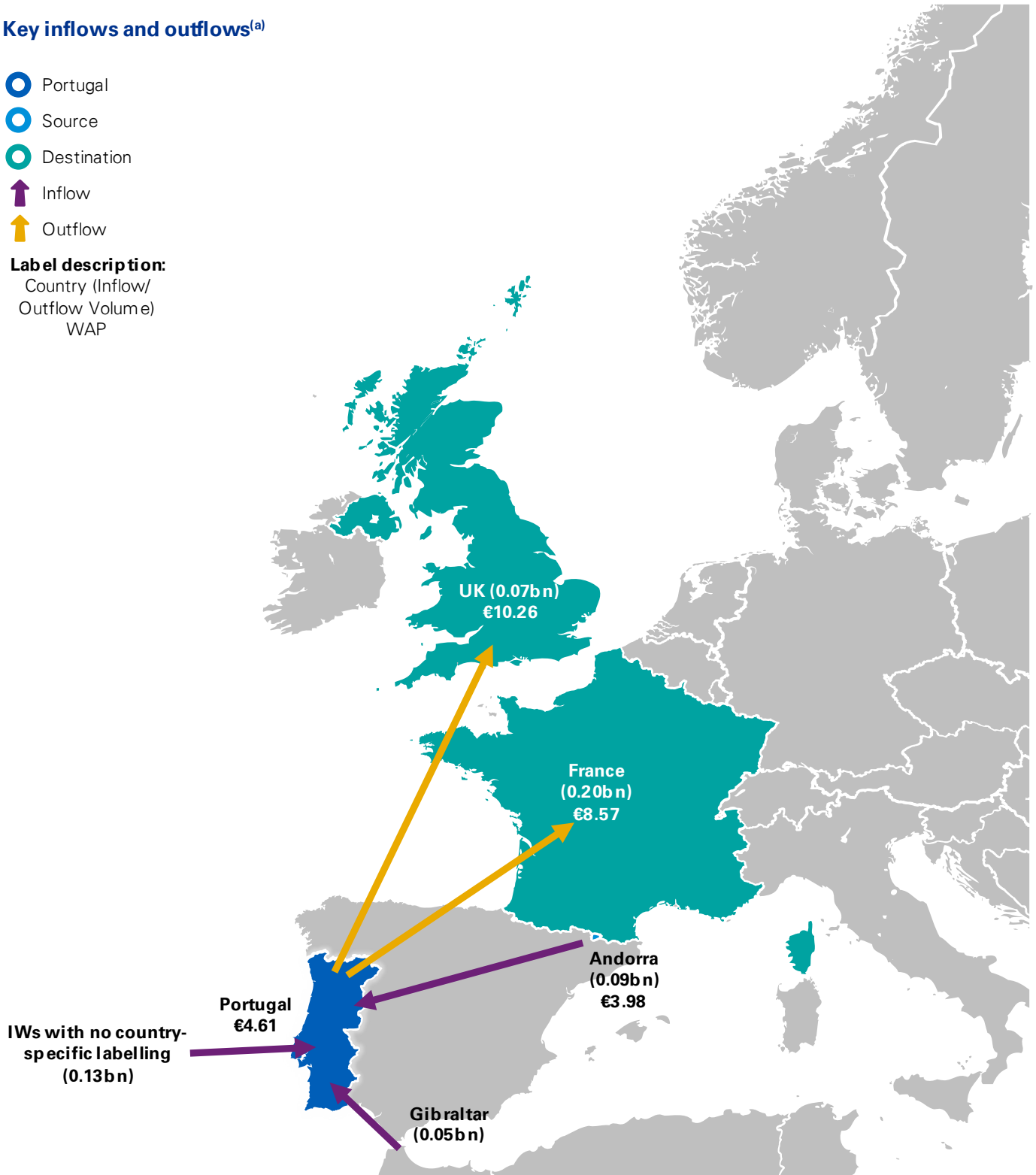
Note: Inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows. Remaining flows are included in the 'Other' category  
Source: KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section

# Key flows

## Key inflows and outflows<sup>(a)</sup>

- Portugal
- Source
- Destination
- Inflow
- Outflow

**Label description:**  
 Country (Inflow/  
 Outflow Volume)  
 WAP



Note: (a) For countries with both inflows and outflows, only the larger of the two flows have been shown

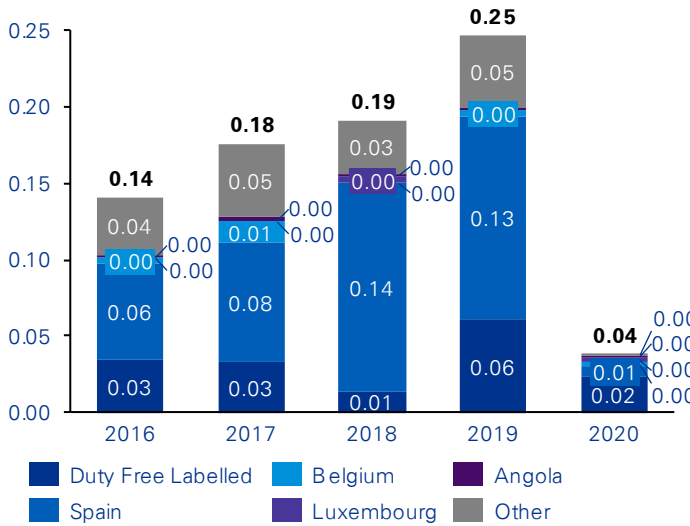
Source: (1) KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section



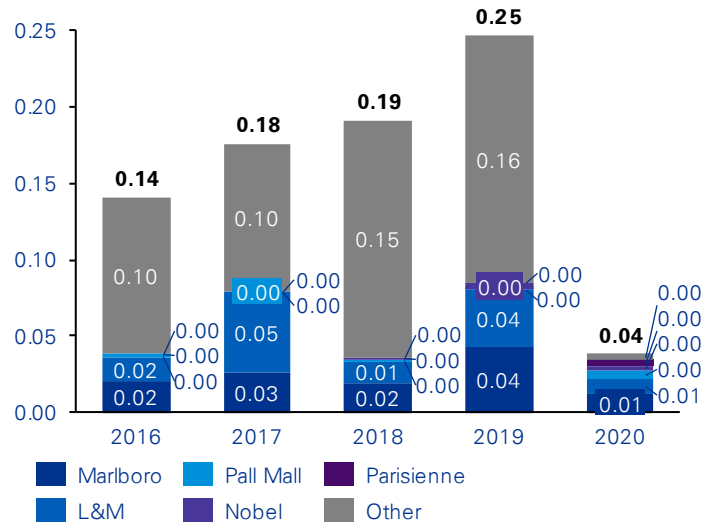
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# ND(L) and C&C flows

**ND(L) by country of origin – 2016-2020 (bn cigarettes)**

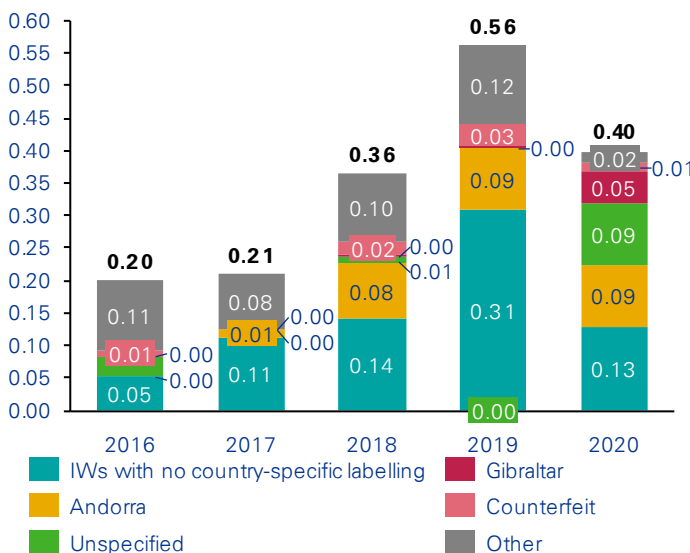


**ND(L) by brand – 2016-2020 (bn cigarettes)**

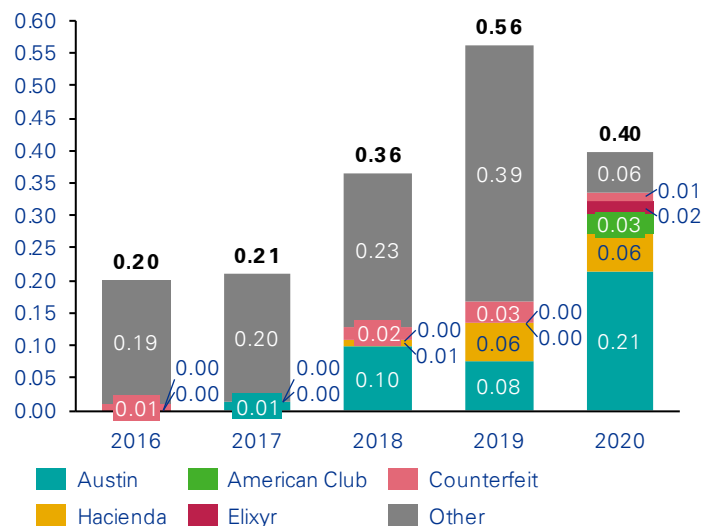


- Non-domestic legal flows declined by 85%, against a backdrop of travel restrictions and border closures as a result of the COVID-19 pandemic
- Illicit Whites flows remained the main source of C&C, albeit with volumes decreasing in 2020

**C&C by country of origin – 2016-2020 (bn cigarettes)**



**C&C by brand – 2016-2020 (bn cigarettes)**



Note: (a) C&C breakdown chart only includes counterfeit volumes related to brands of manufacturers who participate in the empty pack/yellow bag surveys  
 Source: (1) KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section



**KPMG**

Romania



# C&C cigarette consumption and total consumption

26.0bn

Cigarettes consumed



-1.32bn on 2019

2.1bn

C&C cigarettes consumed



-1.28bn on 2019

8.0%

Of total consumption was C&C



-4.31%pts on 2019

€296m

(LEI1,441m)<sup>(1)</sup>

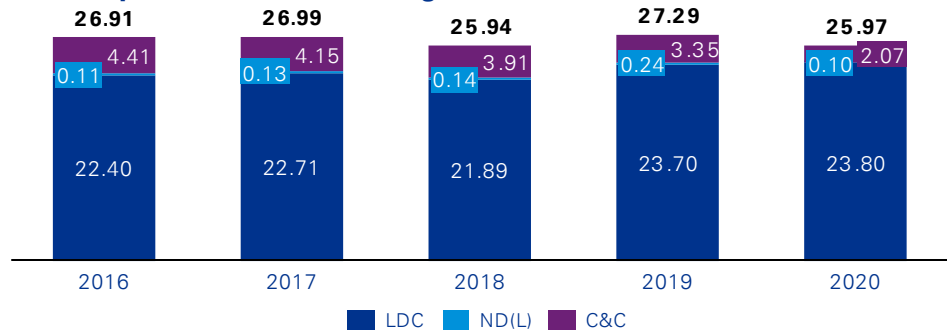
Estimated total tax revenue lost from C&C



-€143m on 2019

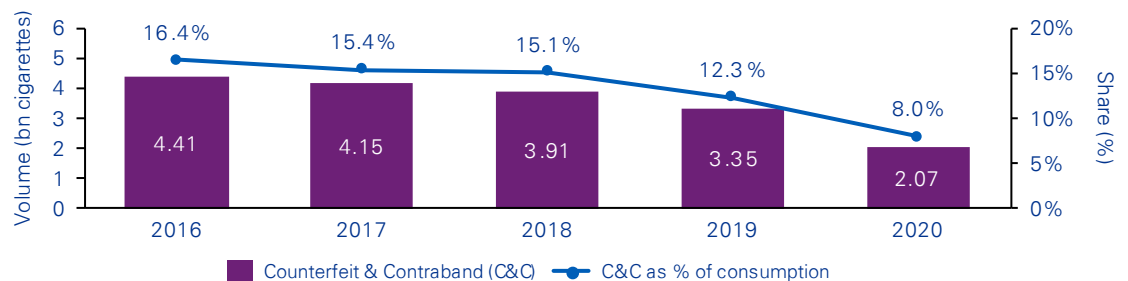


Total consumption – 2016-2020 (bn cigarettes)

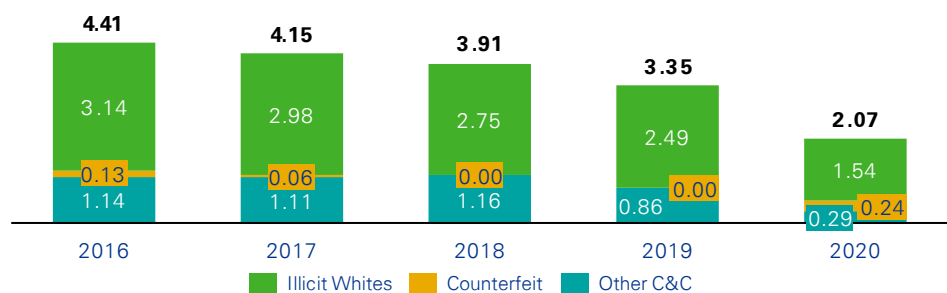


- C&C decreased by 1.28bn to 2.07bn in 2020, or 8% of total consumption, which is the lowest share observed in the reporting period.
- A decline in Illicit Whites and Other C&C was partly offset by an increase in Counterfeit volume

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2016-2020



Breakdown of C&C consumption by type – 2016-2020 (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

Sources: (1) EUR 1 = LEI 4.87, InforEuro, European Commission, December 2020, (2) KPMG EU Flows Calculation 2020. 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 – 2016-2020

Total Romania Consumption						
Billion cigarettes	2016	2017	2018	2019	2020	2019-20 (%)
Legal Domestic Sales (LDS)	24.13	24.51	24.23	25.14	24.90	(1%)
Outflows	(1.73)	(1.80)	(2.34)	(1.44)	(1.10)	(23%)
Legal Domestic Consumption (LDC)	22.40	22.71	21.89	23.70	23.80	0%
Non-Domestic Legal (ND(L))	0.11	0.13	0.14	0.24	0.10	(57%)
Counterfeit and Contraband (C&C)	4.41	4.15	3.91	3.35	2.07	(38%)
Total Non-Domestic	4.51	4.28	4.05	3.58	2.17	(39%)
<b>Total Consumption</b>	<b>26.91</b>	<b>26.99</b>	<b>25.94</b>	<b>27.29</b>	<b>25.97</b>	<b>(5%)</b>

- Total cigarette consumption declined by 5%, driven by declining non-domestic inflows against a backdrop of border closures and travel restrictions due to the COVID-19 pandemic
- Illicit Whites with no country-specific labelling declined in 2020, but still remained the largest source of inflows
- The main outflow markets remained largely consistent in 2020, albeit with outflow declines largely driven by reduced flows to the UK and smaller countries within the 'Other' category, partly offset by increased outflows to France and Ireland

## Total inflows by country of origin – 2016-2020

Inflows to Romania					
Billion cigarettes	2016	2017	2018	2019	2020
IWs with no country-specific labelling	2.66	2.43	2.35	2.13	1.10
Moldova	0.64	0.94	1.00	0.57	0.35
Counterfeit	0.00	0.06	0.00	0.00	0.24
Duty Free Labelled	0.09	0.16	0.17	0.25	0.19
Other	1.12	0.69	0.53	0.63	0.28
<b>Total Inflows</b>	<b>4.51</b>	<b>4.28</b>	<b>4.05</b>	<b>3.58</b>	<b>2.17</b>

## Total outflows by country of origin – 2016-2020

Outflows from Romania					
Billion cigarettes	2016	2017	2018	2019	2020
France	(0.49)	(0.17)	(0.31)	(0.20)	(0.29)
Germany	(0.15)	(0.19)	(0.22)	(0.22)	(0.20)
Ireland	(0.08)	(0.10)	(0.17)	(0.11)	(0.19)
UK	(0.67)	(0.93)	(1.06)	(0.44)	(0.16)
Other	(0.34)	(0.41)	(0.58)	(0.48)	(0.26)
<b>Total Outflows</b>	<b>(1.73)</b>	<b>(1.80)</b>	<b>(2.34)</b>	<b>(1.44)</b>	<b>(1.10)</b>

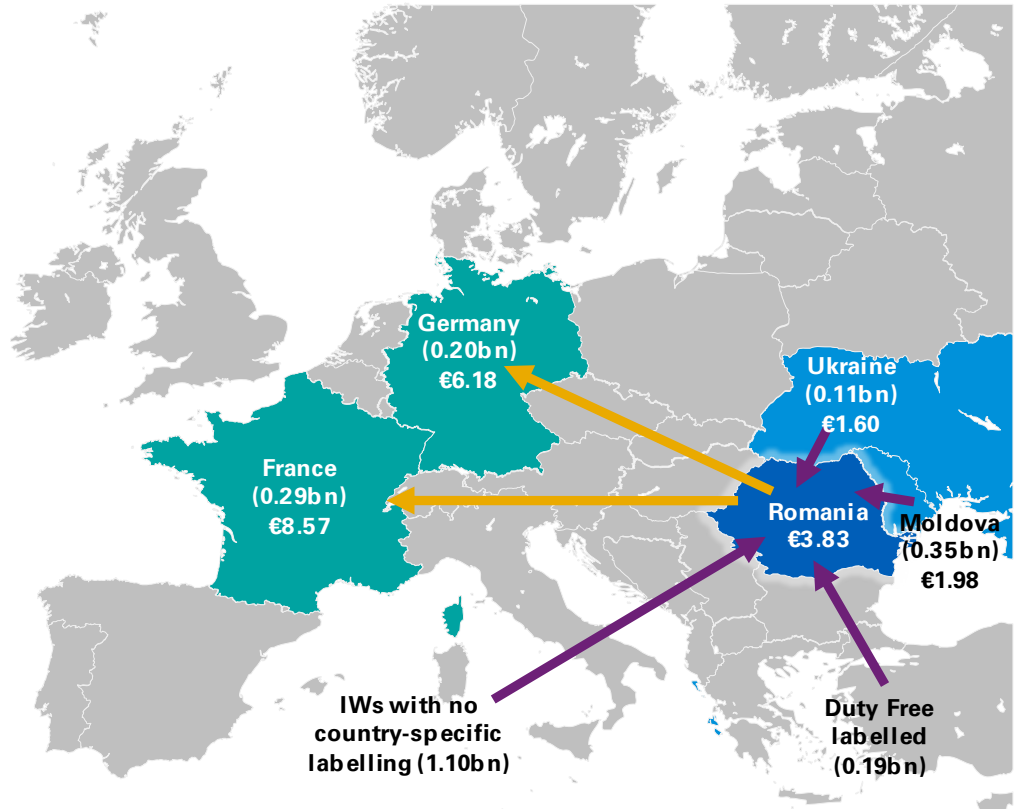
Note: Inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows. Remaining flows are included in the 'Other' category  
Source: KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section

# Key flows and C&C consumption patterns

## Key inflows and outflows<sup>(a)</sup>

- Romania
- Source
- Destination
- Inflow
- Outflow

**Label description:**  
Country (Inflow/  
Outflow Volume)  
WAP



## C&C % by region<sup>(b)(c)</sup>



Note: (a) For countries with both inflows and outflows, only the larger of the two flows have been shown (b) C&C scale is relative to this market and is not comparable with other markets in the study, (c) Data not available for regions in grey

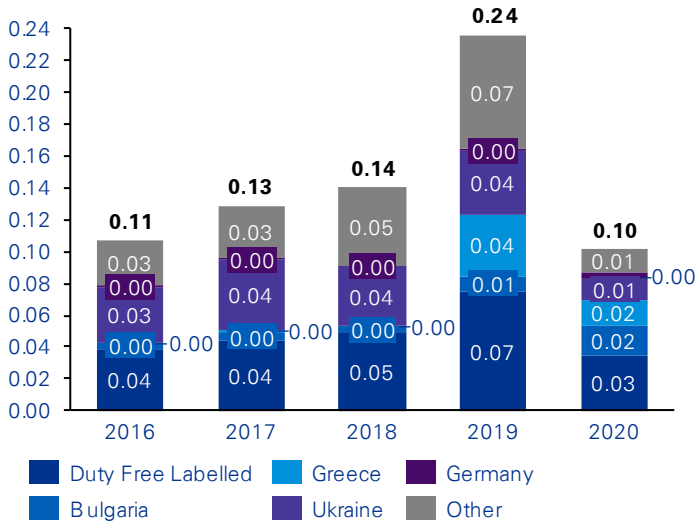
Source: (1) KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section



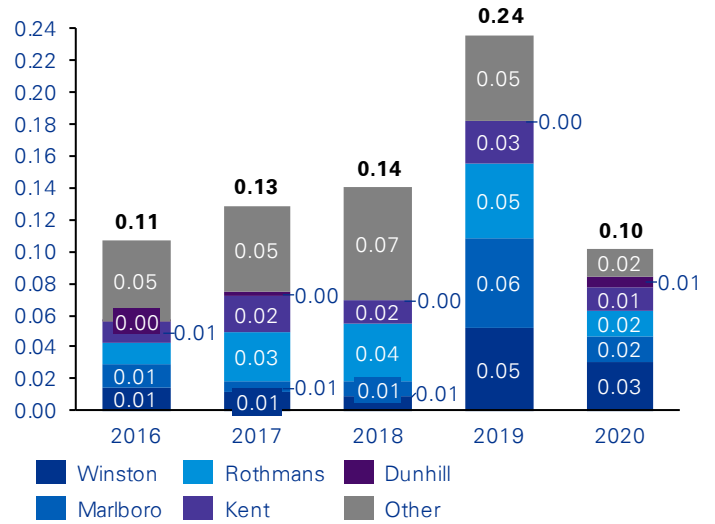
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# ND(L) and C&C flows

**ND(L) by country of origin – 2016-2020 (bn cigarettes)**

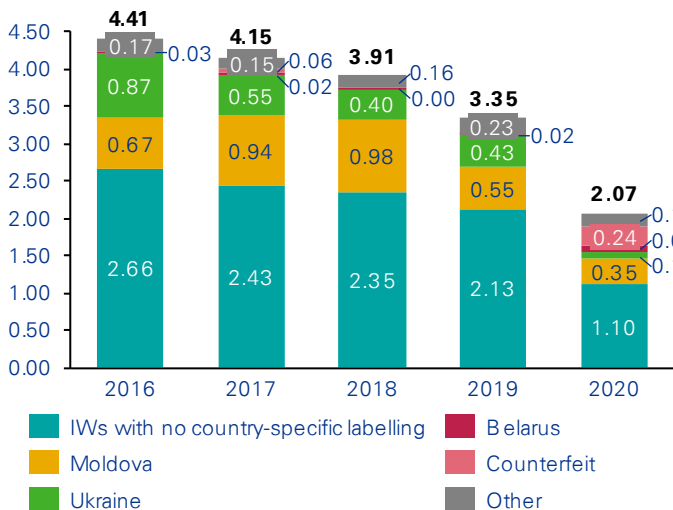


**ND(L) by brand – 2016-2020 (bn cigarettes)**

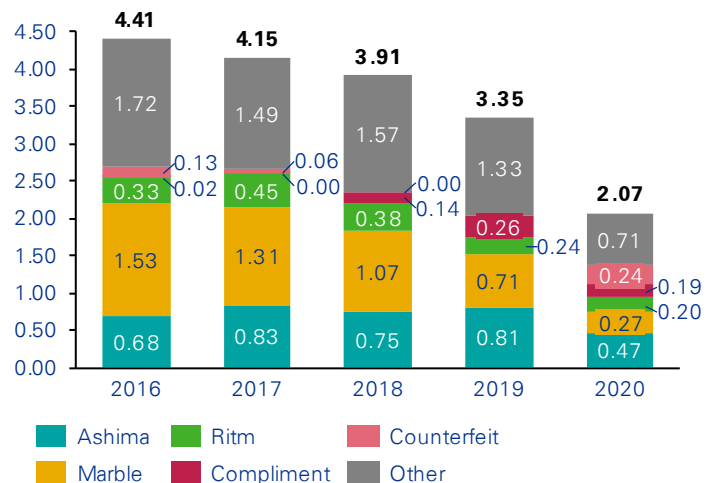


- Legal inflow (ND(L)) declines were largely driven by lower Duty Free flows and smaller countries within the 'Other' category
- Illicit Whites flows remained the primary source of C&C, albeit declining in 2020
- Regional C&C was the highest in the North of the country bordering Moldova and Ukraine

**C&C by country of origin – 2016-2020 (bn cigarettes)**



**C&C by brand – 2016-2020 (bn cigarettes)**



Note: (a) C&C breakdown chart only includes counterfeit volumes related to brands of manufacturers who participate in the empty pack/yellow bag surveys

Source: (1) KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section



**KPMG**

Slovakia





# C&C cigarette consumption and total consumption

6.8bn

Cigarettes consumed



-0.10bn on 2019

0.2bn

C&C cigarettes consumed



-0.09bn on 2019

2.6%

Of total consumption was C&C



-1.22%pts on 2019

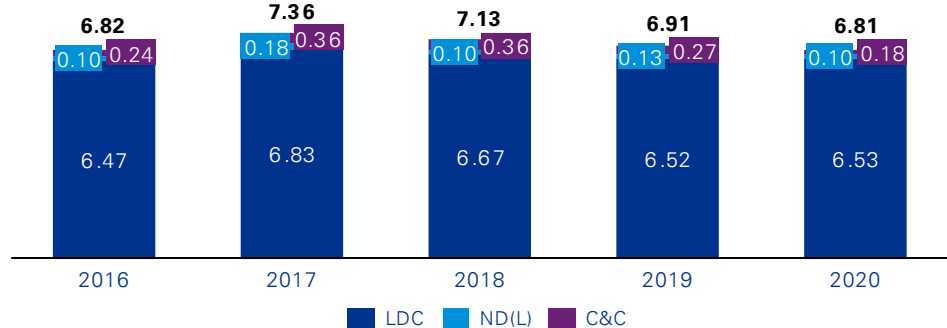
€24m

Estimated total tax revenue lost from C&C



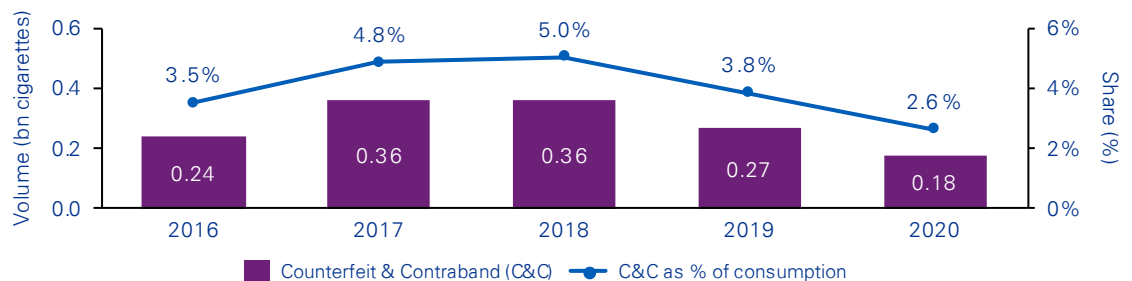
-€10m on 2019

Total consumption – 2016-2020 (bn cigarettes)

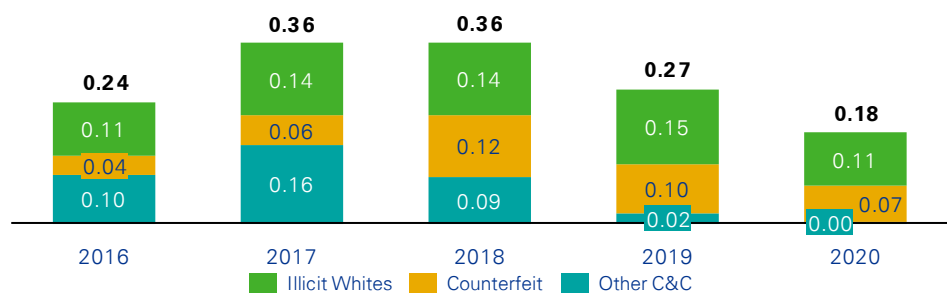


— C&C fell to 2.6% of cigarette consumption in 2020, the lowest in the reporting period, driven by a decline in flows of Illicit Whites, Counterfeit and Other C&C

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2016-2020



Breakdown of C&C consumption by type – 2016-2020 (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 2020. For detailed methodology and a list of sources, refer to the methodology section

# Manufactured cigarette consumption, inflows and outflows

## Total manufactured cigarette consumption – 2016-2020

Total Slovakia Consumption						
Billion cigarettes	2016	2017	2018	2019	2020	2019-20 (%)
Legal Domestic Sales (LDS)	6.84	7.20	7.13	7.08	6.90	(3%)
Outflows	(0.37)	(0.37)	(0.46)	(0.57)	(0.37)	(35%)
Legal Domestic Consumption (LDC)	6.47	6.83	6.67	6.52	6.53	0%
Non-Domestic Legal (ND(L))	0.10	0.18	0.10	0.13	0.10	(22%)
Counterfeit and Contraband (C&C)	0.24	0.36	0.36	0.27	0.18	(33%)
Total Non-Domestic	0.34	0.53	0.46	0.39	0.28	(29%)
<b>Total Consumption</b>	<b>6.82</b>	<b>7.36</b>	<b>7.13</b>	<b>6.91</b>	<b>6.81</b>	<b>(1%)</b>

- Total cigarette consumption declined by 1 % in 2020, driven by lower non-domestic inflows
- Illicit Whites with no country-specific labelling remained the largest source of non-domestic inflows, albeit with declining volumes in 2020
- The main outflow markets remain neighbouring higher-priced Austria and Germany

## Total inflows by country of origin – 2016-2020

Inflows to Slovakia					
Billion cigarettes	2016	2017	2018	2019	2020
IWs with no country-specific labelling	0.09	0.14	0.14	0.13	0.07
Counterfeit	0.04	0.06	0.12	0.10	0.07
Czech Republic	0.03	0.07	0.02	0.06	0.06
Ukraine	0.11	0.14	0.07	0.02	0.03
Other	0.09	0.13	0.10	0.08	0.06
<b>Total Inflows</b>	<b>0.34</b>	<b>0.53</b>	<b>0.46</b>	<b>0.39</b>	<b>0.28</b>

## Total outflows by country of origin – 2016-2020

Outflows from Slovakia					
Billion cigarettes	2016	2017	2018	2019	2020
Austria	(0.13)	(0.17)	(0.18)	(0.28)	(0.15)
Germany	(0.05)	(0.06)	(0.08)	(0.10)	(0.10)
Czech Republic	(0.03)	(0.02)	(0.07)	(0.10)	(0.03)
UK	(0.09)	(0.07)	(0.03)	(0.03)	(0.03)
Other	(0.07)	(0.06)	(0.10)	(0.06)	(0.05)
<b>Total Outflows</b>	<b>(0.37)</b>	<b>(0.37)</b>	<b>(0.46)</b>	<b>(0.57)</b>	<b>(0.37)</b>

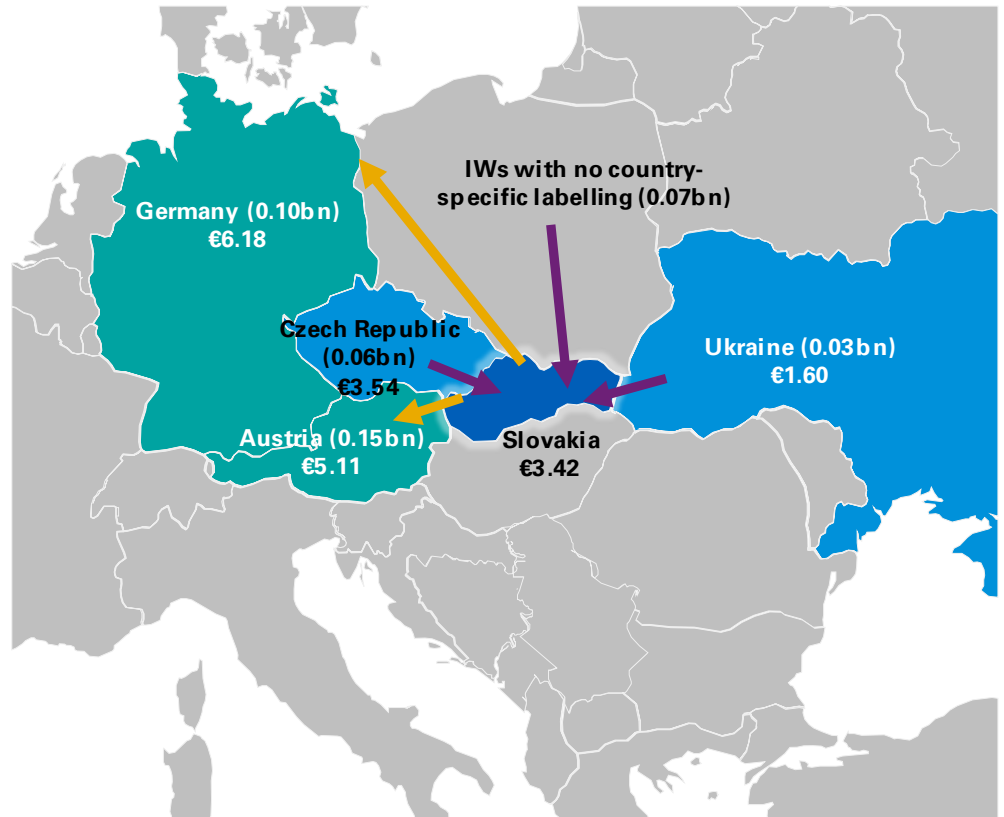
Note: Inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows. Remaining flows are included in the 'Other' category  
Source: KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section

# Key flows and C&C consumption patterns

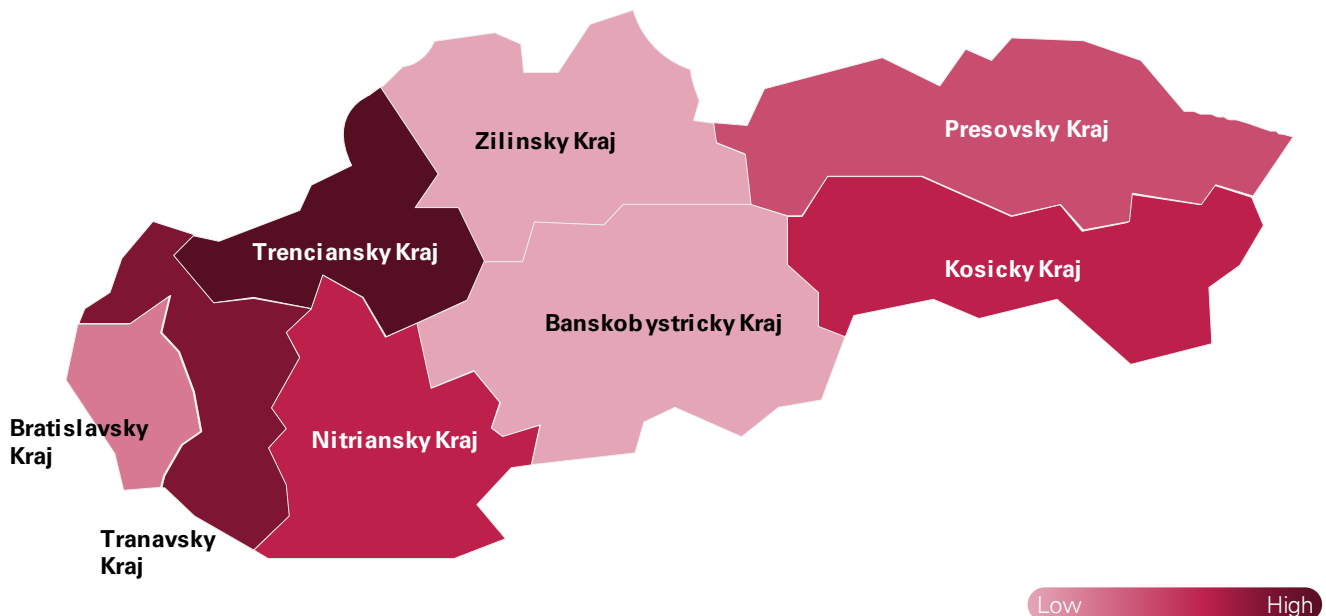
## Key inflows and outflows<sup>(a)</sup>

- Slovakia
- Source
- Destination
- Inflow
- Outflow

**Label description:**  
Country (Inflow/  
Outflow Volume)  
WAP



## C&C % by region<sup>(b)(c)</sup>

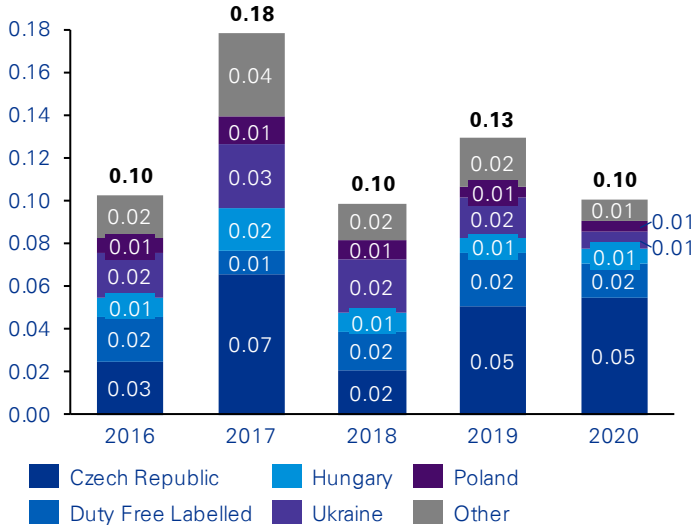


Note: (a) For countries with both inflows and outflows, only the larger of the two flows have been shown (b) C&C scale is relative to this market and is not comparable with other markets in the study, (c) Data not available for regions in grey

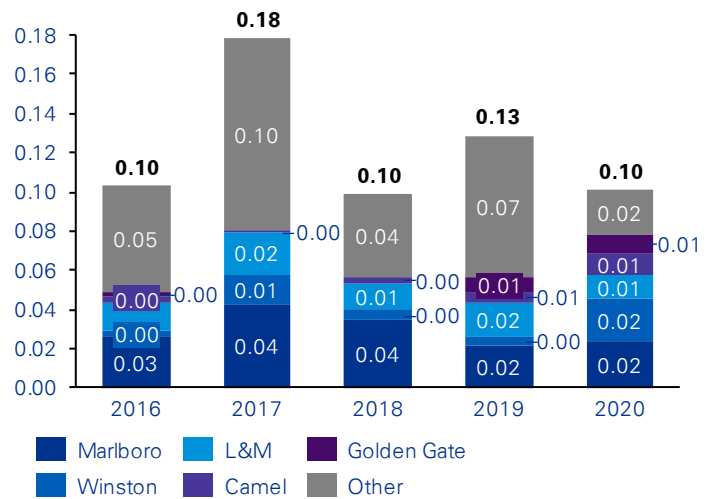
Source: (1) KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section

# ND(L) and C&C flows

**ND(L) by country of origin – 2016-2020 (bn cigarettes)**

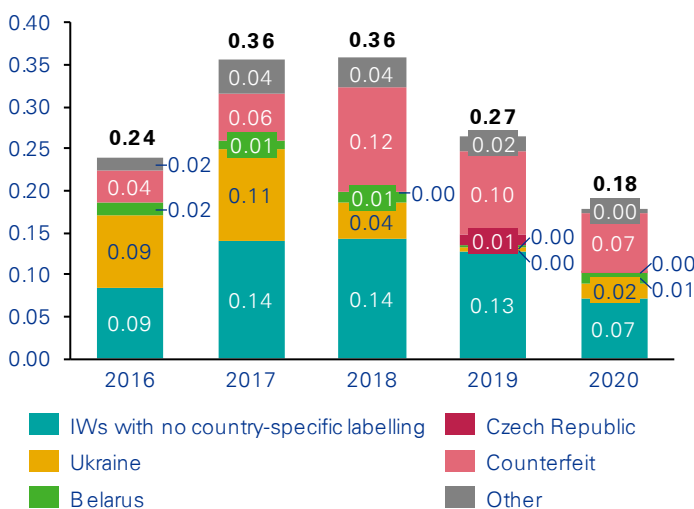


**ND(L) by brand – 2016-2020 (bn cigarettes)**

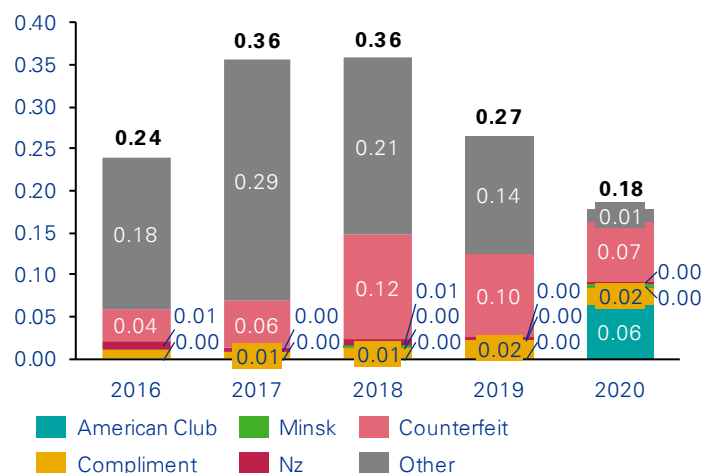


- Non-domestic inflows from neighbouring Czech Republic were considered predominantly legal due to the high travel volume between the two countries
- Declining C&C inflows were largely driven by reduced Illicit Whites with no country-specific labelling and Counterfeit flows
- The highest level of C&C was recorded in the Trenciansky Kraj region

**C&C by country of origin – 2016-2020 (bn cigarettes)**



**C&C by brand – 2016-2020 (bn cigarettes)**



Note: (a) C&C breakdown chart only includes counterfeit volumes related to brands of manufacturers who participate in the empty pack/yellow bag surveys  
 Source: (1) KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section





**KPMG**

Slovenia





# C&C cigarette consumption and total consumption

2.7bn

Cigarettes consumed



-0.39bn on 2019

0.1bn

C&C cigarettes consumed



-0.17bn on 2019

5.4%

Of total consumption was C&C



-4.64%pts on 2019

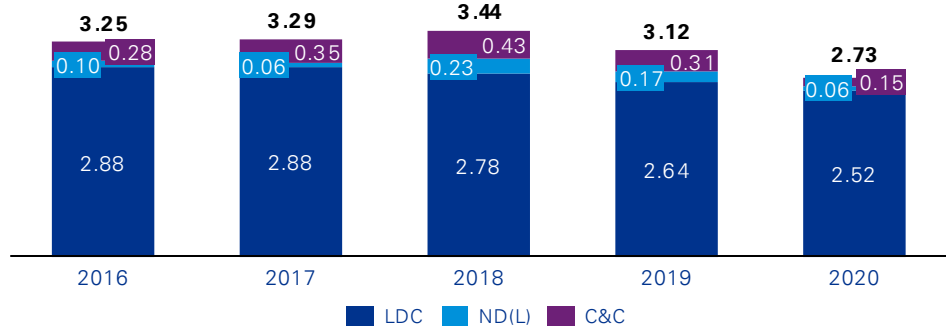
€22m

Estimated total tax revenue lost from C&C



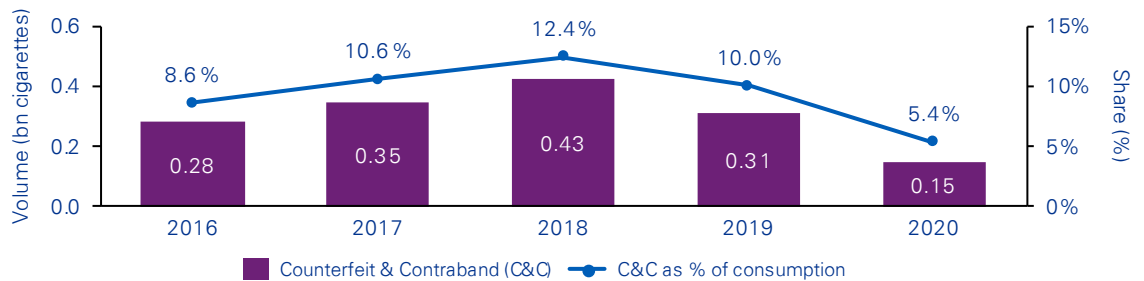
-€23m on 2019

**Total consumption – 2016-2020 (bn cigarettes)**

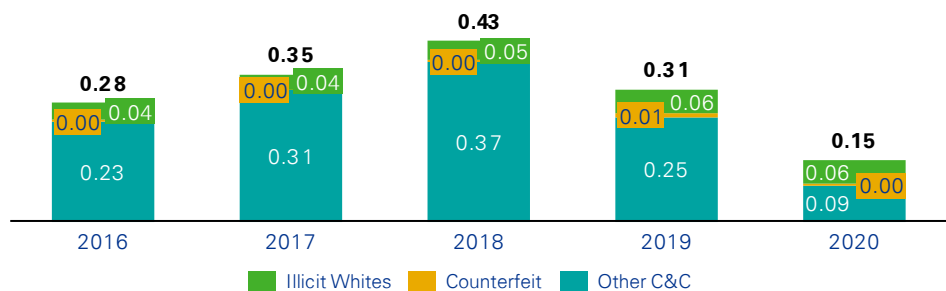


- C&C declined to 5.4% of cigarette consumption in 2020, the lowest level in the reporting period, primarily driven by a decline in Other C&C
- With effect from January 2020, plain packaging was required for cigarettes and roll-your-own tobacco in Slovenia
  - No counterfeit identified in the empty pack survey was in plain packaging

**Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2016-2020**



**Breakdown of C&C consumption by type – 2016-2020 (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 2020. For detailed methodology and a list of sources, refer to the methodology section

# Manufactured cigarette consumption, inflows and outflows

## Total manufactured cigarette consumption – 2016-2020

Total Slovenia Consumption						
Billion cigarettes	2016	2017	2018	2019	2020	2019-20 (%)
Legal Domestic Sales (LDS)	3.55	3.48	3.48	3.37	3.21	(5%)
Outflows	(0.67)	(0.60)	(0.70)	(0.73)	(0.68)	(6%)
Legal Domestic Consumption (LDC)	2.88	2.88	2.78	2.64	2.52	(4%)
Non-Domestic Legal (ND(L))	0.10	0.06	0.23	0.17	0.06	(63%)
Counterfeit and Contraband (C&C)	0.28	0.35	0.43	0.31	0.15	(53%)
Total Non-Domestic	0.38	0.41	0.66	0.48	0.21	(57%)
<b>Total Consumption</b>	<b>3.25</b>	<b>3.29</b>	<b>3.44</b>	<b>3.12</b>	<b>2.73</b>	<b>(12%)</b>

- Total cigarette consumption declined by 12% in 2020 as both legal domestic consumption and non-domestic inflows declined
- Illicit Whites with no country-specific labelling became the largest source of inflows in 2020 after the historical major source markets of The Republic of North Macedonia, Bosnia and Herzegovina and Croatia declined
- Outflows from Slovenia are principally to the higher-priced neighbouring markets of Italy and Austria

## Total inflows by country of origin – 2016-2020

Inflows to Slovenia					
Billion cigarettes	2016	2017	2018	2019	2020
IWs with no country-specific labelling	0.01	0.03	0.04	0.05	0.06
The Republic Of North Macedonia	0.03	0.04	0.03	0.06	0.03
Bosnia And Herzegovina	0.16	0.18	0.12	0.12	0.03
Croatia	0.03	0.04	0.07	0.06	0.02
Romania	0.01	0.00	0.09	0.00	0.01
Other	0.14	0.12	0.31	0.18	0.06
<b>Total Inflows</b>	<b>0.38</b>	<b>0.41</b>	<b>0.66</b>	<b>0.48</b>	<b>0.21</b>

## Total outflows by country of origin – 2016-2020

Outflows from Slovenia					
Billion cigarettes	2016	2017	2018	2019	2020
Italy	(0.15)	(0.12)	(0.18)	(0.41)	(0.45)
Austria	(0.37)	(0.34)	(0.39)	(0.20)	(0.11)
Other	(0.15)	(0.14)	(0.13)	(0.12)	(0.12)
<b>Total Outflows</b>	<b>(0.67)</b>	<b>(0.60)</b>	<b>(0.70)</b>	<b>(0.73)</b>	<b>(0.68)</b>

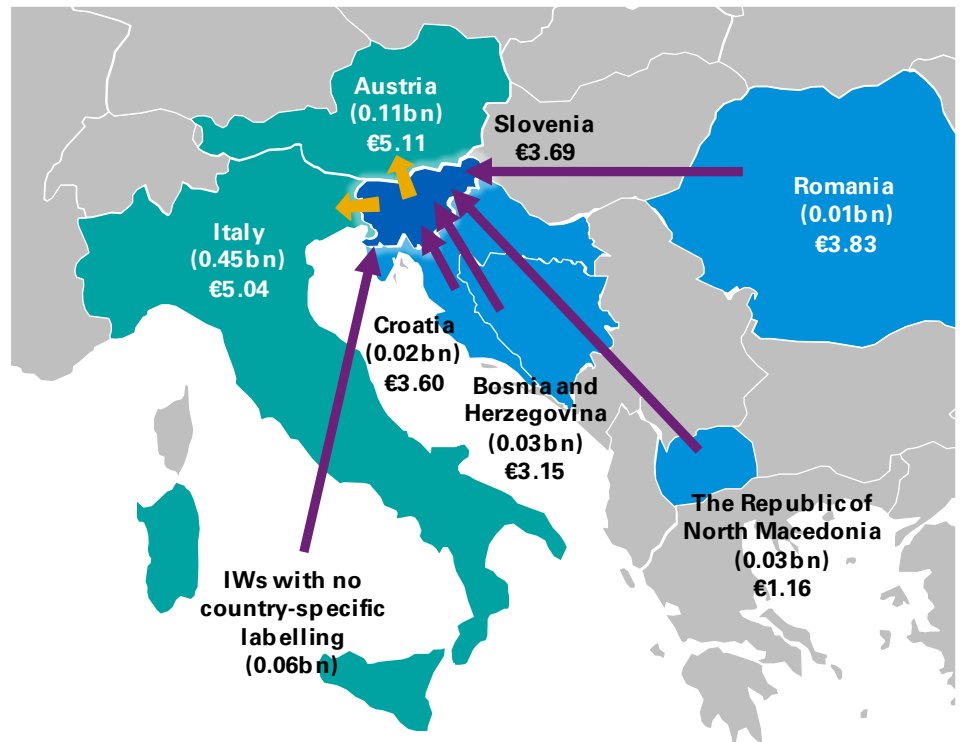
Note: Inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows. Remaining flows are included in the 'Other' category  
 Source: KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section

# Key flows and C&C consumption patterns

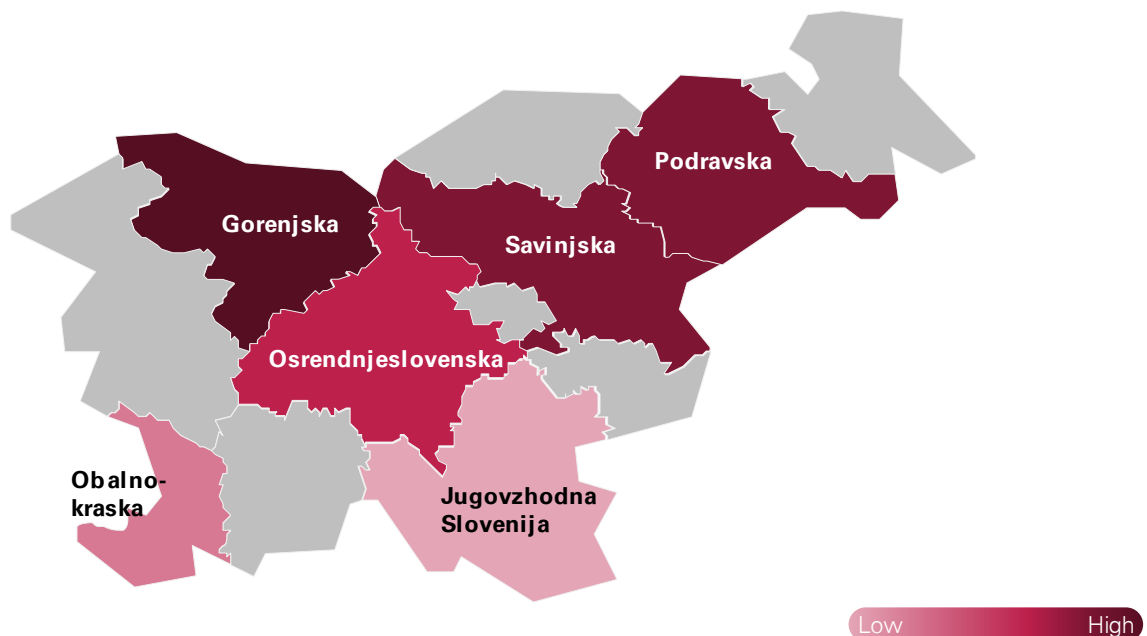
## Key inflows and outflows<sup>(a)</sup>

- Slovenia
- Source
- Destination
- Inflow
- Outflow

**Label description:**  
Country (Inflow/  
Outflow Volume)  
WAP



## C&C % by region<sup>(b)(c)</sup>

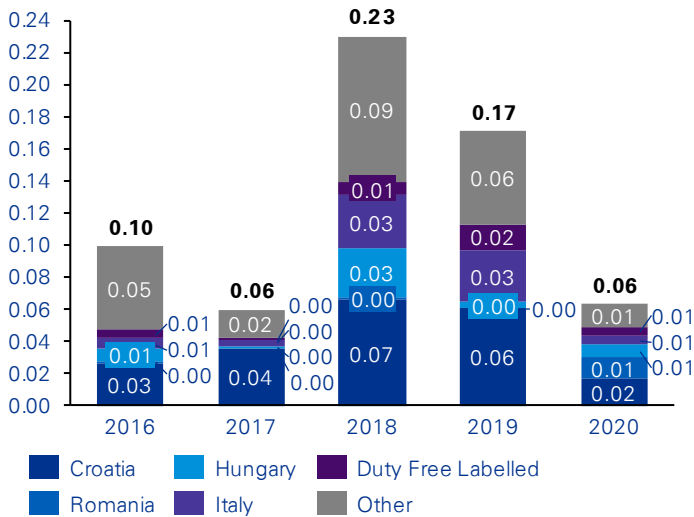


Note: (a) For countries with both inflows and outflows, only the larger of the two flows have been shown (b) C&C scale is relative to this market and is not comparable with other markets in the study, (c) Data not available for regions in grey

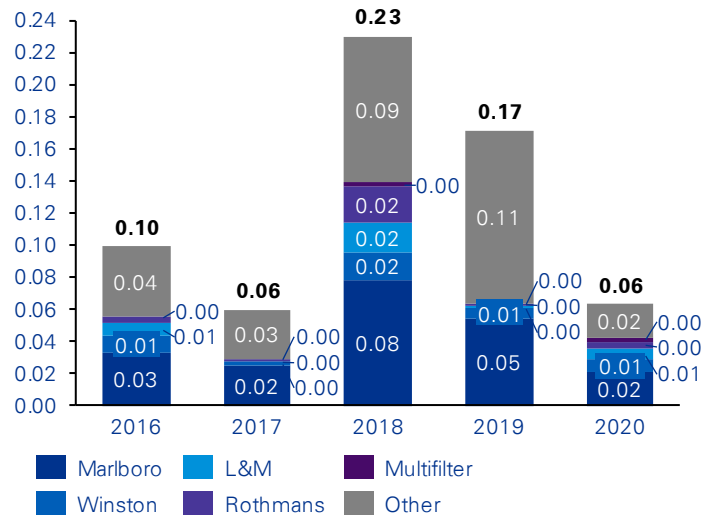
Source: (1) KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section

# ND(L) and C&C flows

**ND(L) by country of origin – 2016-2020 (bn cigarettes)**

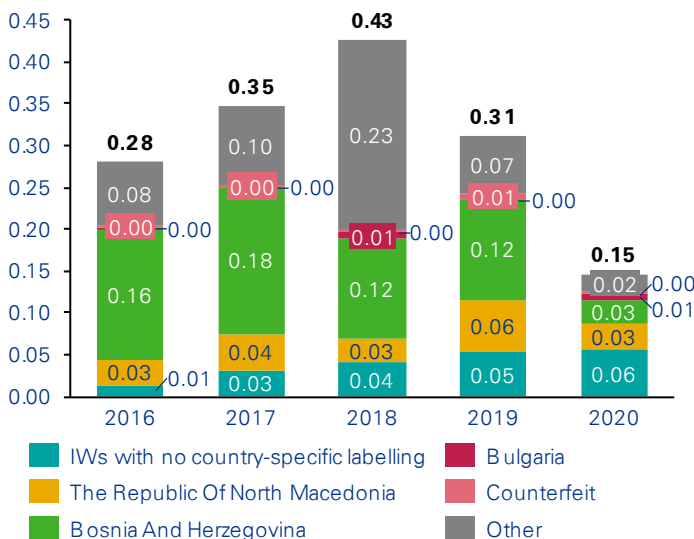


**ND(L) by brand – 2016-2020 (bn cigarettes)**

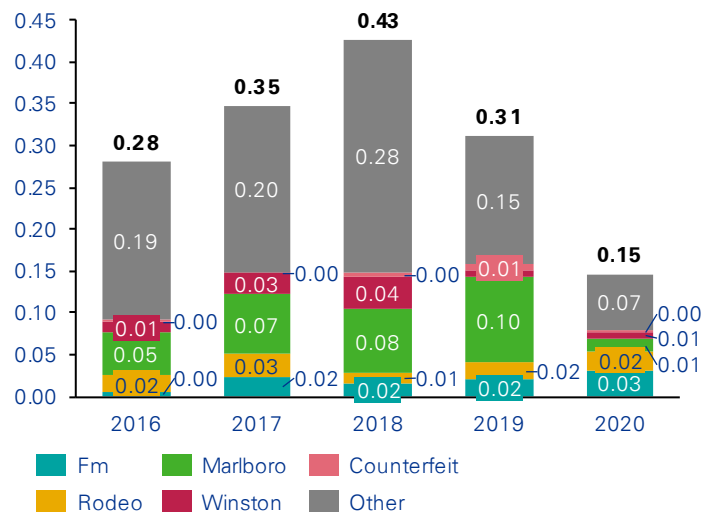


- Non-domestic legal flows declined against a backdrop of travel restrictions and border closures as a result of the COVID-19 pandemic, with the largest declines in flows from Croatia and smaller countries within the 'Other' category
- The decline in C&C was primarily driven by a decrease in illicit flows from Bosnia and Herzegovina
- The region of Gorenjska had the highest proportion of C&C

**C&C by country of origin – 2016-2020 (bn cigarettes)**



**C&C by brand – 2016-2020 (bn cigarettes)**



Note: (a) C&C breakdown chart only includes counterfeit volumes related to brands of manufacturers who participate in the empty pack/yellow bag surveys

Source: (1) KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section



**KPMG**

Spain





# C&C cigarette consumption and total consumption

40.6bn

Cigarettes consumed



-1.16bn on 2019

1.7bn

C&C cigarettes consumed



+0.21bn on 2019

4.2%

Of total consumption was C&C



+0.62%pts on 2019

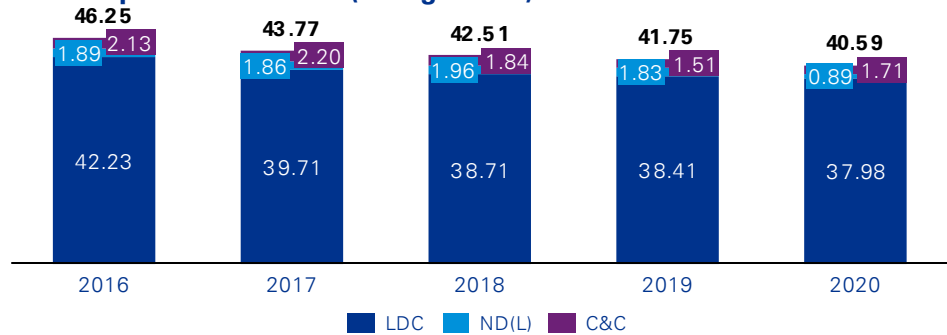
€309m

Estimated total tax revenue lost from C&C



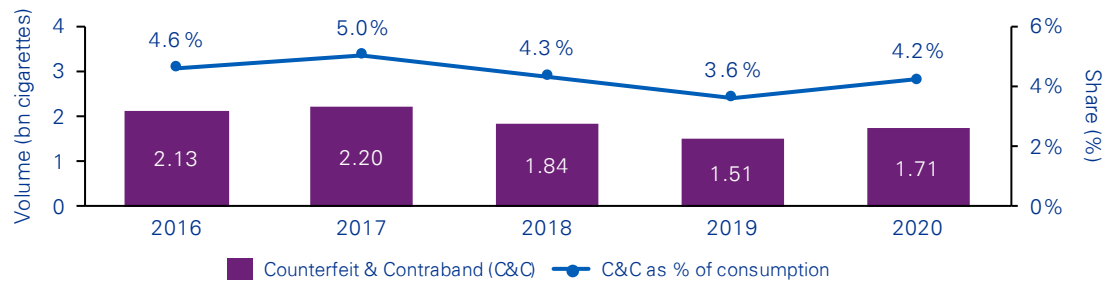
+€39m on 2019

Total consumption – 2016-2020 (bn cigarettes)

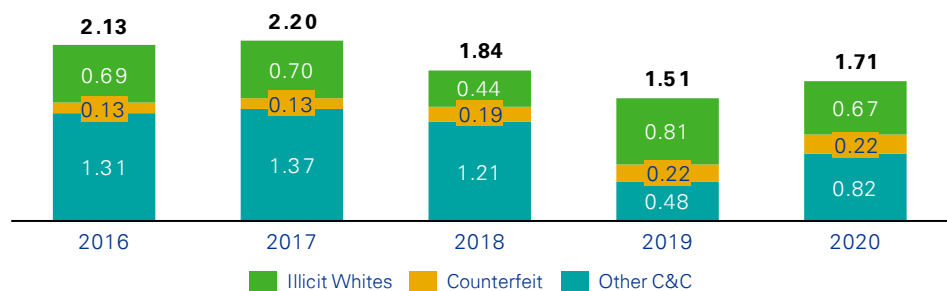


- C&C increased to 4.2% of total cigarette consumption in 2020 or 1.71 bn cigarettes
- Illicit Whites declines were more than offset by increases in Other C&C, while Counterfeit inflows remained stable

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2016-2020



Breakdown of C&C consumption by type – 2016-2020 (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 2020. For detailed methodology and a list of sources, refer to the methodology section

# Manufactured cigarette consumption, inflows and outflows

## Total manufactured cigarette consumption – 2016-2020

Total Spain Consumption						
Billion cigarettes	2016	2017	2018	2019	2020	2019-20 (%)
Legal Domestic Sales (LDS)	46.47	44.75	44.62	45.02	41.40	(8%)
Outflows	(4.24)	(5.04)	(5.91)	(6.61)	(3.42)	(48%)
Legal Domestic Consumption (LDC)	42.23	39.71	38.71	38.41	37.98	(1%)
Non-Domestic Legal (ND(L))	1.89	1.86	1.96	1.83	0.89	(51%)
Counterfeit and Contraband (C&C)	2.13	2.20	1.84	1.51	1.71	14%
Total Non-Domestic	4.02	4.06	3.80	3.33	2.61	(22%)
<b>Total Consumption</b>	<b>46.25</b>	<b>43.77</b>	<b>42.51</b>	<b>41.75</b>	<b>40.59</b>	<b>(3%)</b>

- Total cigarette consumption decreased by 3%, largely driven by declines in non-domestic consumption
- Gibraltar remains the largest inflow source to Spain, with flows declining by 0.25bn in 2020
- Outflows decreased by 48% to 3.4bn in 2020
  - France accounted for 81% of the outflows from Spain
  - Against a backdrop of border closures, travel restrictions and a change in legal cigarette allowance for intra-EU travel in France, outflows to France declined by 32%. The legal limit was changed from 800 to 200 sticks for EU travellers from 31<sup>st</sup> July 2020

## Total inflows by country of origin – 2016-2020

Inflows to Spain					
Billion cigarettes	2016	2017	2018	2019	2020
Gibraltar	0.85	1.41	1.58	1.48	1.23
IWs with no country-specific labelling	0.58	0.65	0.50	0.59	0.64
Counterfeit	0.12	0.13	0.19	0.22	0.22
Other	2.47	1.87	1.53	1.04	0.51
<b>Total Inflows</b>	<b>4.02</b>	<b>4.06</b>	<b>3.80</b>	<b>3.33</b>	<b>2.61</b>

## Total outflows by country of origin – 2016-2020

Outflows from Spain					
Billion cigarettes	2016	2017	2018	2019	2020
France	(2.63)	(2.84)	(3.61)	(4.08)	(2.77)
Other	(1.62)	(2.19)	(2.31)	(2.52)	(0.65)
<b>Total Outflows</b>	<b>(4.24)</b>	<b>(5.04)</b>	<b>(5.91)</b>	<b>(6.61)</b>	<b>(3.42)</b>

Note: Inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows. Remaining flows are included in the 'Other' category  
 Source: KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section

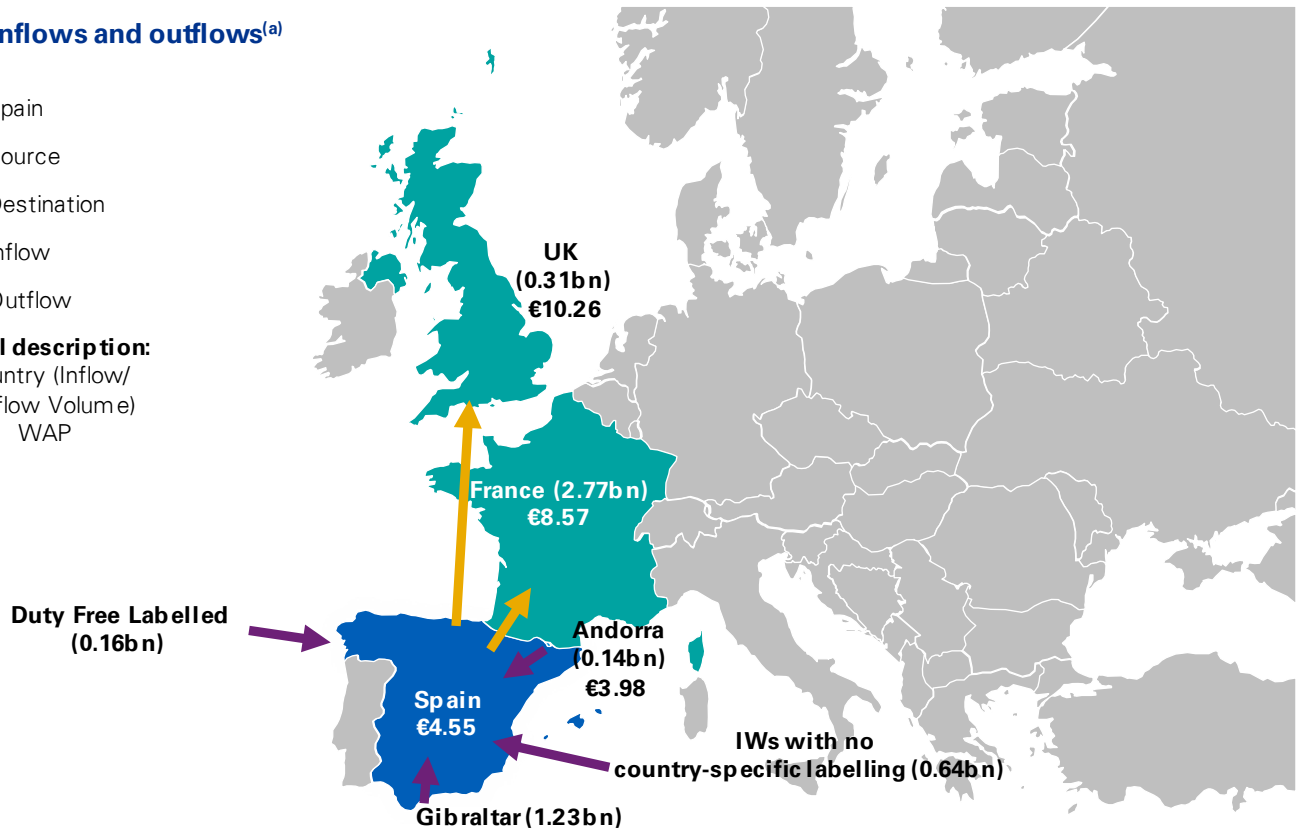


# Key flows and C&C consumption patterns

## Key inflows and outflows<sup>(a)</sup>

- Spain
- Source
- Destination
- Inflow
- Outflow

**Label description:**  
Country (Inflow/  
Outflow Volume)  
WAP



## C&C % by region<sup>(b)(c)</sup>

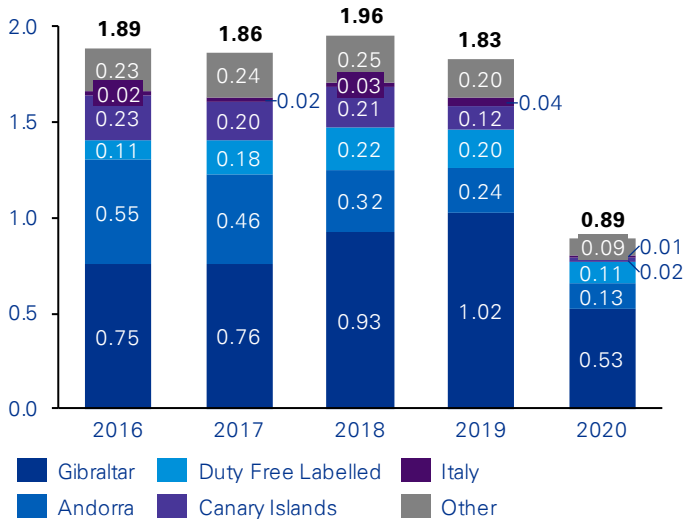


Note: (a) For countries with both inflows and outflows, only the larger of the two flows have been shown (b) C&C scale is relative to this market and is not comparable with other markets in the study, (c) Data not available for regions in grey

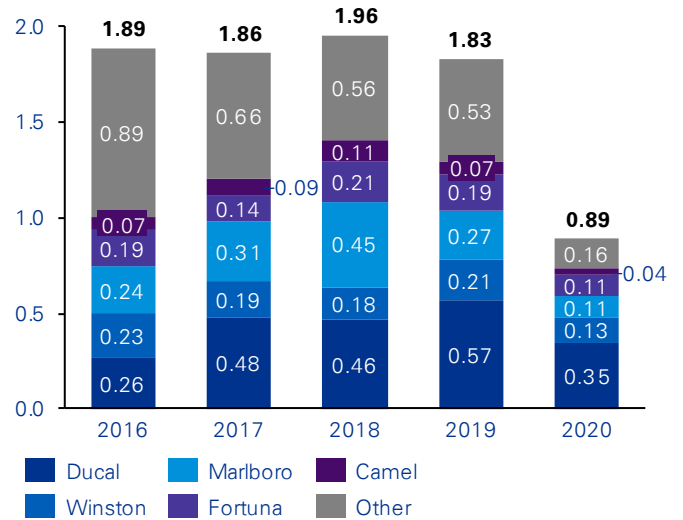
Source: (1) KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section

# ND(L) and C&C flows

**ND(L) by country of origin – 2016-2020 (bn cigarettes)**

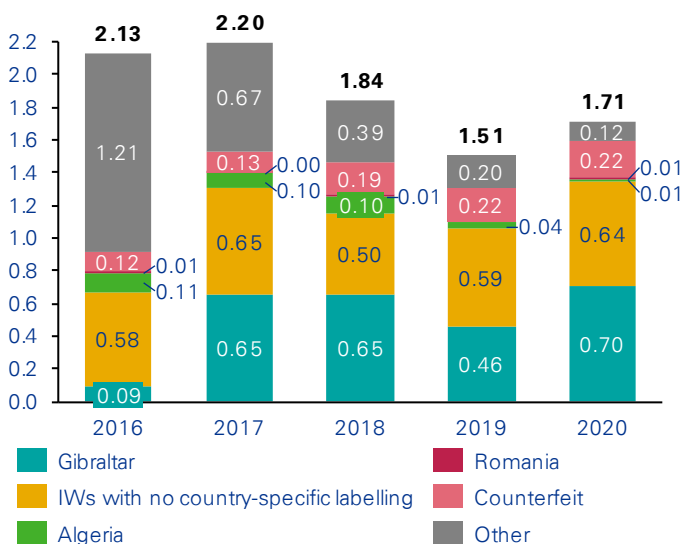


**ND(L) by brand – 2016-2020 (bn cigarettes)**

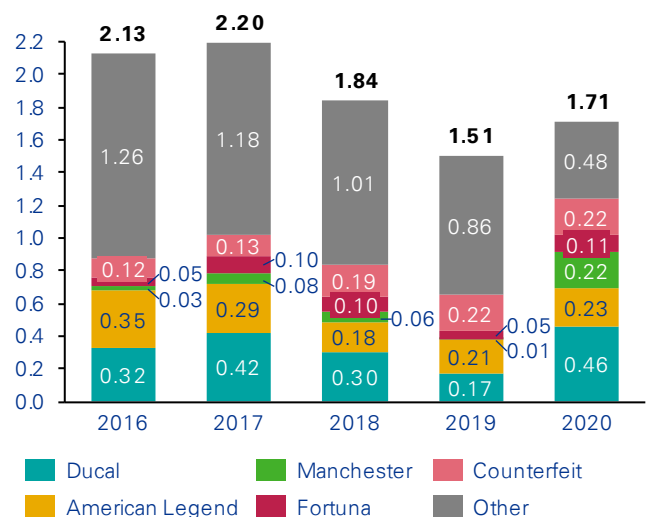


- Legal inflows (ND(L)) were impacted by border closures and travel disruption as a result of COVID-19
  - Inflows from neighbouring Gibraltar and Andorra declined by almost 50%
  - Inflows from the Canary Islands, a popular tourist destination, declined by 81%
- Based on traveller and frontier worker volumes, 43% of the Gibraltar inflow was considered legal. The highest level of C&C incidence was observed in Andalucia, in the South of the country

**C&C by country of origin – 2016-2020 (bn cigarettes)**



**C&C by brand – 2016-2020 (bn cigarettes)**



Note: (a) C&C breakdown chart only includes counterfeit volumes related to brands of manufacturers who participate in the empty pack/yellow bag surveys

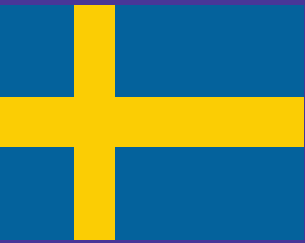
Source: (1) KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section



**KPMG**

Sweden





# C&C cigarette consumption and total consumption

5.4bn

Cigarettes consumed



-0.35bn on 2019

0.4bn

C&C cigarettes consumed



-1.12bn on 2019

8.0%

Of total consumption was C&C



-1.60%pts on 2019

€91m

(SEK931m)<sup>(1)</sup>

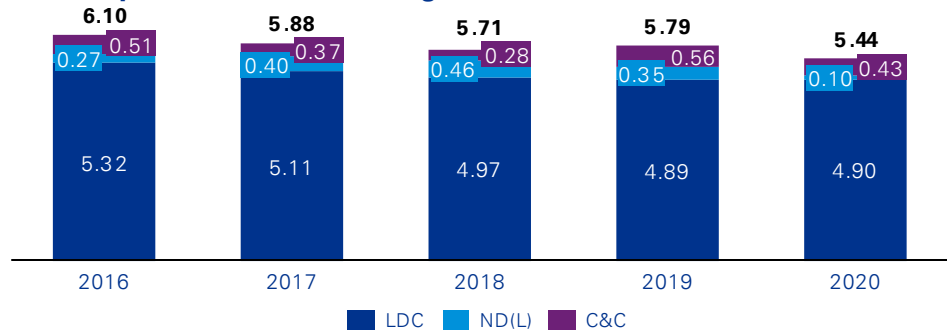
Estimated total tax revenue lost from C&C



-€26m on 2019

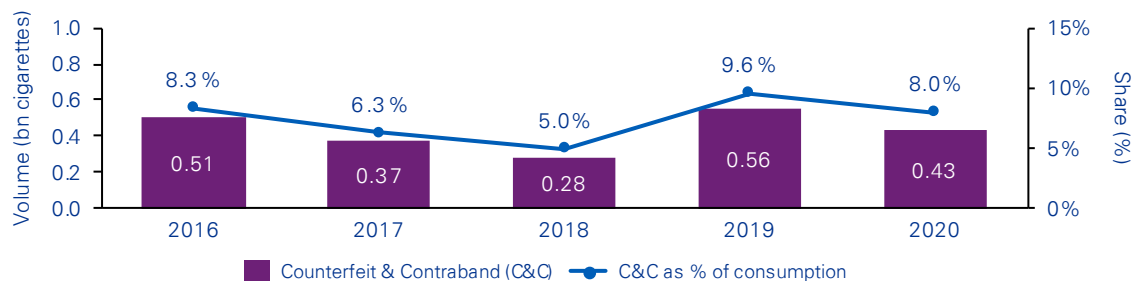


Total consumption – 2016-2020 (bn cigarettes)

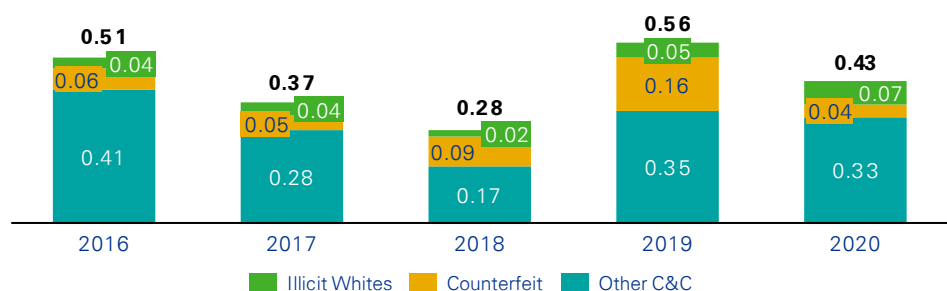


— C&C declined by 0.12bn in 2020 to 8.0% of cigarette consumption, mainly driven by a decline in Counterfeit inflows

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2016-2020



Breakdown of C&C consumption by type – 2016-2020 (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

Sources: (1) EUR 1 = SEK 10.17, InforEuro, European Commission, December 2020; (2) KPMG EU Flows Calculation 2020. 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 – 2016-2020

Total Sweden Consumption						
Billion cigarettes	2016	2017	2018	2019	2020	2019-20 (%)
Legal Domestic Sales (LDS)	5.72	5.58	5.31	5.18	5.01	(3%)
Outflows	(0.40)	(0.47)	(0.34)	(0.29)	(0.11)	(63%)
Legal Domestic Consumption (LDC)	5.32	5.11	4.97	4.89	4.90	0%
Non-Domestic Legal (ND(L))	0.27	0.40	0.46	0.35	0.10	(71%)
Counterfeit and Contraband (C&C)	0.51	0.37	0.28	0.56	0.43	(22%)
Total Non-Domestic	0.78	0.77	0.74	0.90	0.54	(40%)
<b>Total Consumption</b>	<b>6.10</b>	<b>5.88</b>	<b>5.71</b>	<b>5.79</b>	<b>5.44</b>	<b>(6%)</b>

- Total cigarette consumption declined by 6% , primarily driven by a reduction in non-domestic inflows
- Duty Free remained the largest inflow source, but declined by 34% in 2020
- Outflows declined by 63%
  - Neighbouring Denmark, Finland and Norway continue to be the largest outflow countries, accounting for 68% of total outflows

## Total inflows by country of origin – 2016-2020

Inflows to Sweden						
Billion cigarettes	2016	2017	2018	2019	2020	
Duty Free Labelled	0.30	0.27	0.23	0.26	0.17	
Poland	0.04	0.02	0.05	0.10	0.07	
Belarus	0.02	0.01	0.01	0.02	0.06	
Counterfeit	0.06	0.05	0.09	0.16	0.04	
Lithuania	0.01	0.01	0.00	0.02	0.02	
Other	0.36	0.42	0.36	0.34	0.18	
<b>Total Inflows</b>	<b>0.78</b>	<b>0.77</b>	<b>0.74</b>	<b>0.90</b>	<b>0.54</b>	

## Total outflows by country of origin – 2016-2020

Outflows from Sweden						
Billion cigarettes	2016	2017	2018	2019	2020	
Denmark	(0.04)	(0.07)	(0.03)	(0.08)	(0.03)	
Finland	(0.01)	(0.02)	(0.01)	(0.01)	(0.02)	
Norway	(0.30)	(0.31)	(0.21)	(0.16)	(0.02)	
Other	(0.06)	(0.07)	(0.09)	(0.04)	(0.03)	
<b>Total Outflows</b>	<b>(0.40)</b>	<b>(0.47)</b>	<b>(0.34)</b>	<b>(0.29)</b>	<b>(0.11)</b>	

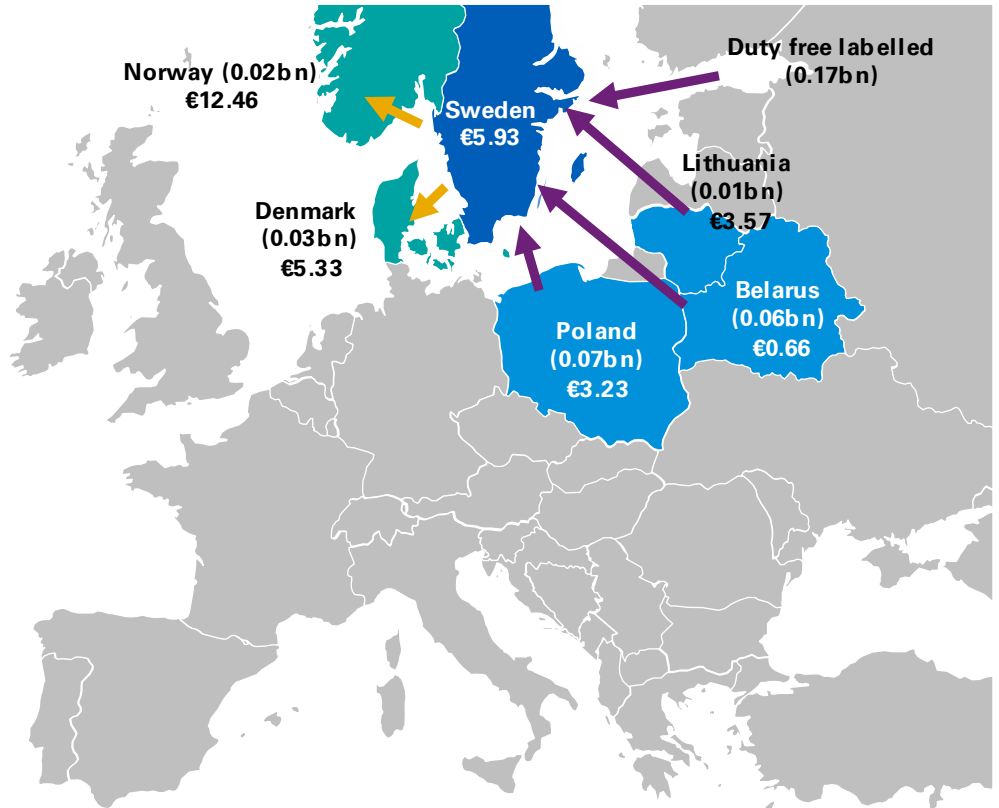
Note: Inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows. Remaining flows are included in the 'Other' category  
 Source: KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section

# Key flows and C&C consumption patterns

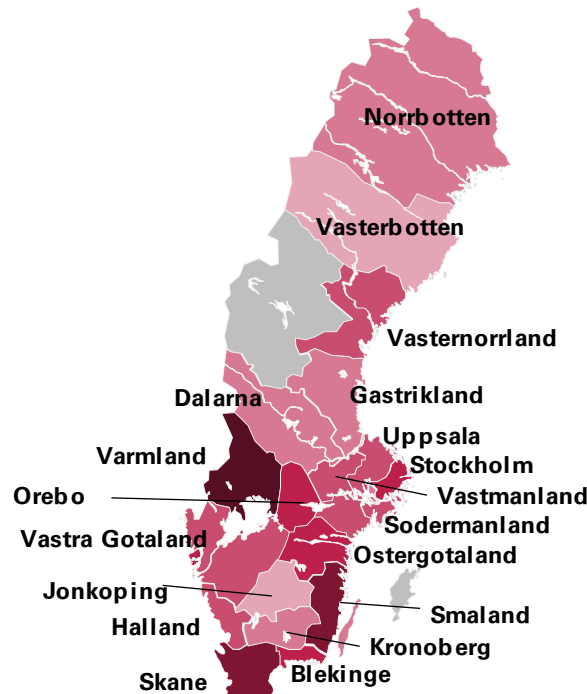
## Key inflows and outflows<sup>(a)</sup>

- Sweden
- Source
- Destination
- Inflow
- Outflow

**Label description:**  
Country (Inflow/  
Outflow Volume)  
WAP



## C&C % by region<sup>(b)(c)</sup>

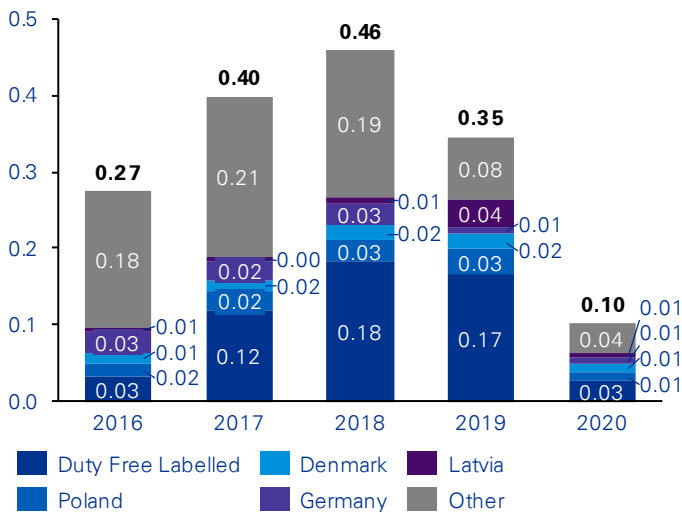


Note: (a) For countries with both inflows and outflows, only the larger of the two flows have been shown (b) C&C scale is relative to this market and is not comparable with other markets in the study, (c) Data not available for regions in grey

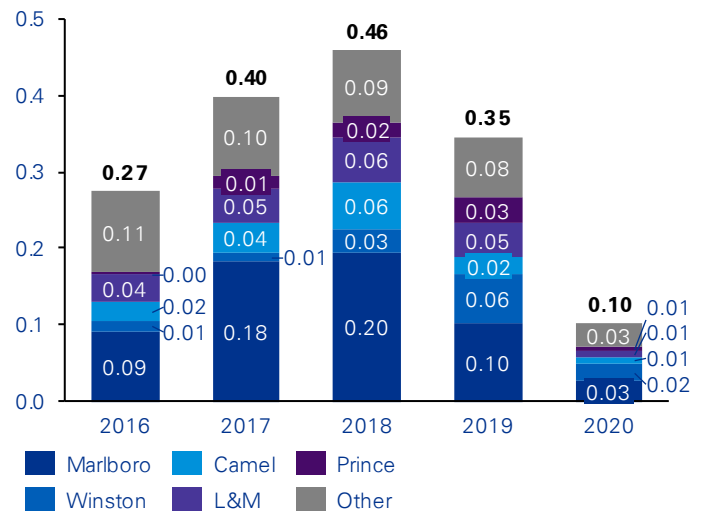
Source: (1) KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section

# ND(L) and C&C flows

**ND(L) by country of origin – 2016-2020 (bn cigarettes)**

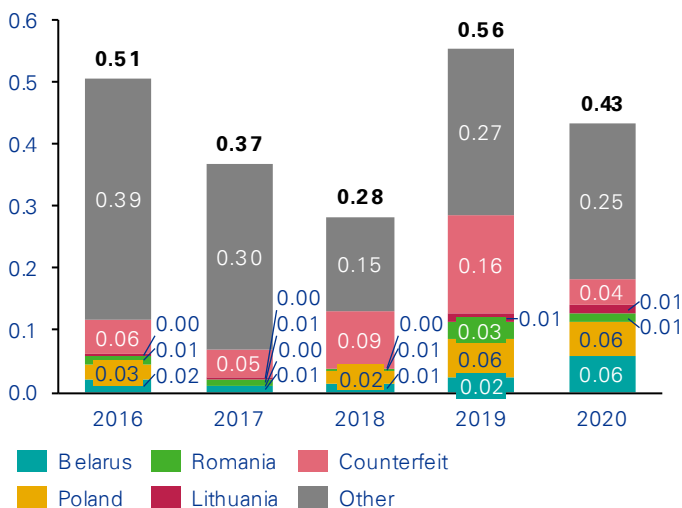


**ND(L) by brand – 2016-2020 (bn cigarettes)**

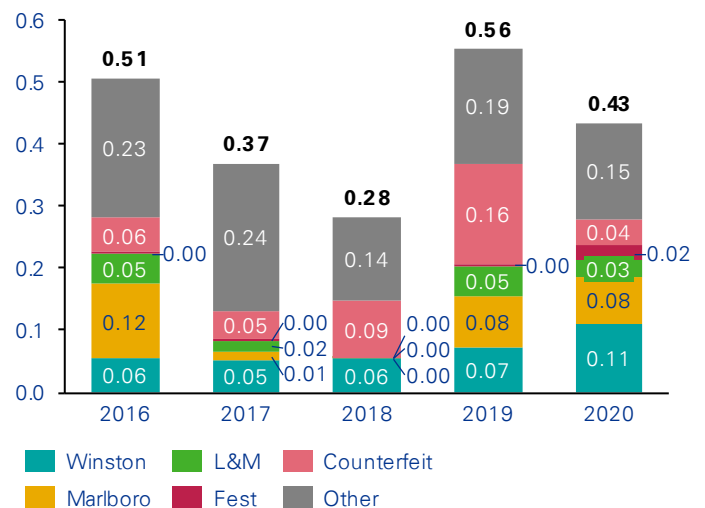


- Non-domestic legal flows declined in 2020 driven by border closures and travel restrictions as a result of the COVID-19 pandemic, with Duty Free inflows being the most impacted
- C&C declines were principally driven by reduced Counterfeit inflows

**C&C by country of origin – 2016-2020 (bn cigarettes)**



**C&C by brand – 2016-2020 (bn cigarettes)**



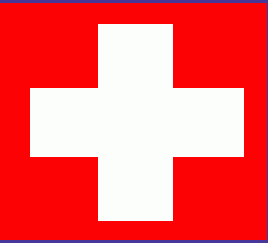
Note: (a) C&C breakdown chart only includes counterfeit volumes related to brands of manufacturers who participate in the empty pack/yellow bag surveys  
 Source: (1) KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section



# Switzerland







# C&C cigarette consumption and total consumption

9.7bn

Cigarettes consumed



-0.11bn on 2019

0.2bn

C&C cigarettes consumed



-0.08bn on 2019

2.1%

Of total consumption was C&C



-0.78%pts on 2019

€47m

(CHF51m)<sup>(1)</sup>

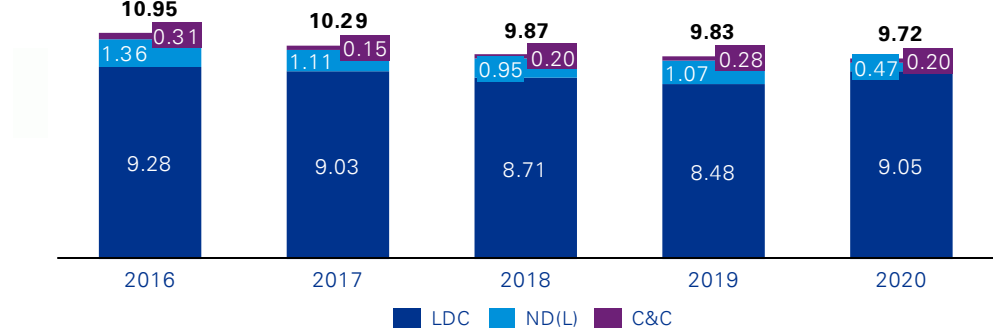
Estimated total tax revenue lost from C&C



-€20m on 2019

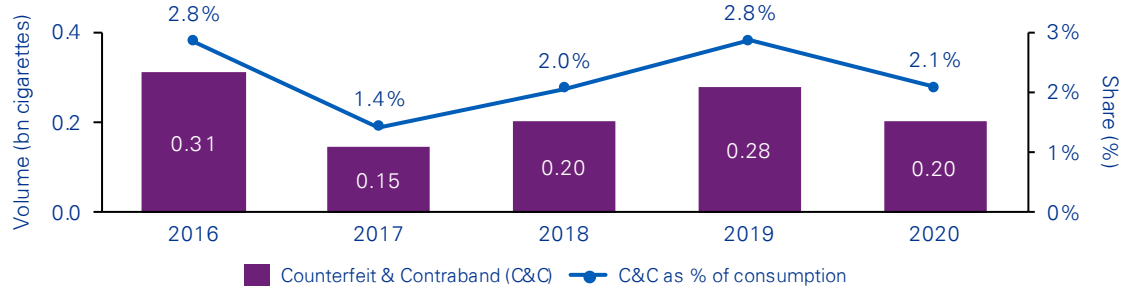


Total consumption – 2016-2020 (bn cigarettes)

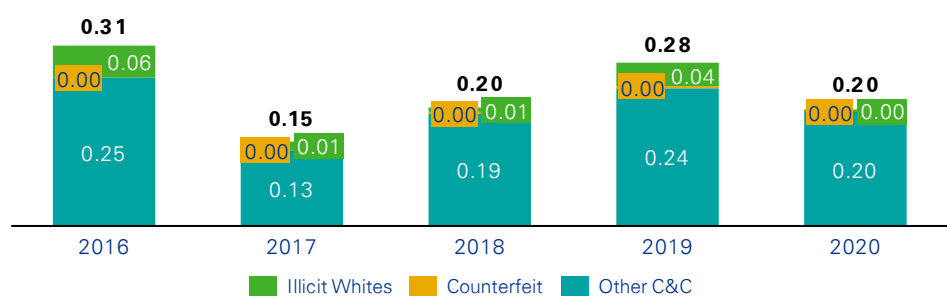


— C&C decreased to 2.1% of total cigarette consumption in 2020, with declines in both Illicit Whites and Other C&C

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2016-2020



Breakdown of C&C consumption by type – 2016-2020 (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

Sources: (1) EUR 1 = CHF 1.08, InforEuro, European Commission, December 2020; (2) KPMG EU Flows Calculation 2020. 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 – 2016-2020

Total Switzerland Consumption						
Billion cigarettes	2016	2017	2018	2019	2020	2019-20 (%)
Legal Domestic Sales (LDS)	9.48	9.33	9.07	8.77	9.19	5%
Outflows	(0.20)	(0.30)	(0.35)	(0.29)	(0.15)	(49%)
Legal Domestic Consumption (LDC)	9.28	9.03	8.71	8.48	9.05	7%
Non-Domestic Legal (ND(L))	1.36	1.11	0.95	1.07	0.47	(56%)
Counterfeit and Contraband (C&C)	0.31	0.15	0.20	0.28	0.20	(28%)
Total Non-Domestic	1.67	1.26	1.16	1.35	0.68	(50%)
<b>Total Consumption</b>	<b>10.95</b>	<b>10.29</b>	<b>9.87</b>	<b>9.83</b>	<b>9.72</b>	<b>(1%)</b>

- Total consumption declined by 0.1bn in 2020 as a decline in non-domestic inflows was largely offset by an increase in legal domestic consumption
- Border closures and travel disruption as a result of the COVID-19 pandemic has decreased inflows from the traditional major sources
  - Germany and France flows have declined driven by lower tourist volumes, albeit the number of cross-border workers has remained relatively stable from Germany and increased from France<sup>(1)</sup>
  - Duty Free inflows also declined in 2020. As Switzerland is not in the EU, travellers can purchase Duty Free cigarettes while traveling to other EU and non-EU countries by air

## Total inflows by country of origin – 2016-2020

Inflows to Switzerland					
Billion cigarettes	2016	2017	2018	2019	2020
Germany	0.22	0.21	0.19	0.21	0.16
Duty Free Labelled	0.53	0.51	0.38	0.34	0.14
France	0.28	0.07	0.07	0.29	0.06
Austria	0.04	0.05	0.05	0.03	0.05
Poland	0.02	0.01	0.02	0.01	0.04
Other	0.57	0.42	0.45	0.46	0.23
<b>Total Inflows</b>	<b>1.67</b>	<b>1.26</b>	<b>1.16</b>	<b>1.35</b>	<b>0.68</b>

## Total outflows by country of origin – 2016-2020

Outflows from Switzerland					
Billion cigarettes	2016	2017	2018	2019	2020
France	(0.04)	(0.07)	(0.08)	(0.09)	(0.05)
Germany	(0.05)	(0.06)	(0.06)	(0.07)	(0.04)
Netherlands	(0.03)	(0.05)	(0.06)	(0.04)	(0.03)
Italy	(0.01)	(0.01)	(0.08)	(0.03)	(0.01)
Other	(0.08)	(0.10)	(0.08)	(0.06)	(0.02)
<b>Total Outflows</b>	<b>(0.20)</b>	<b>(0.30)</b>	<b>(0.35)</b>	<b>(0.29)</b>	<b>(0.15)</b>

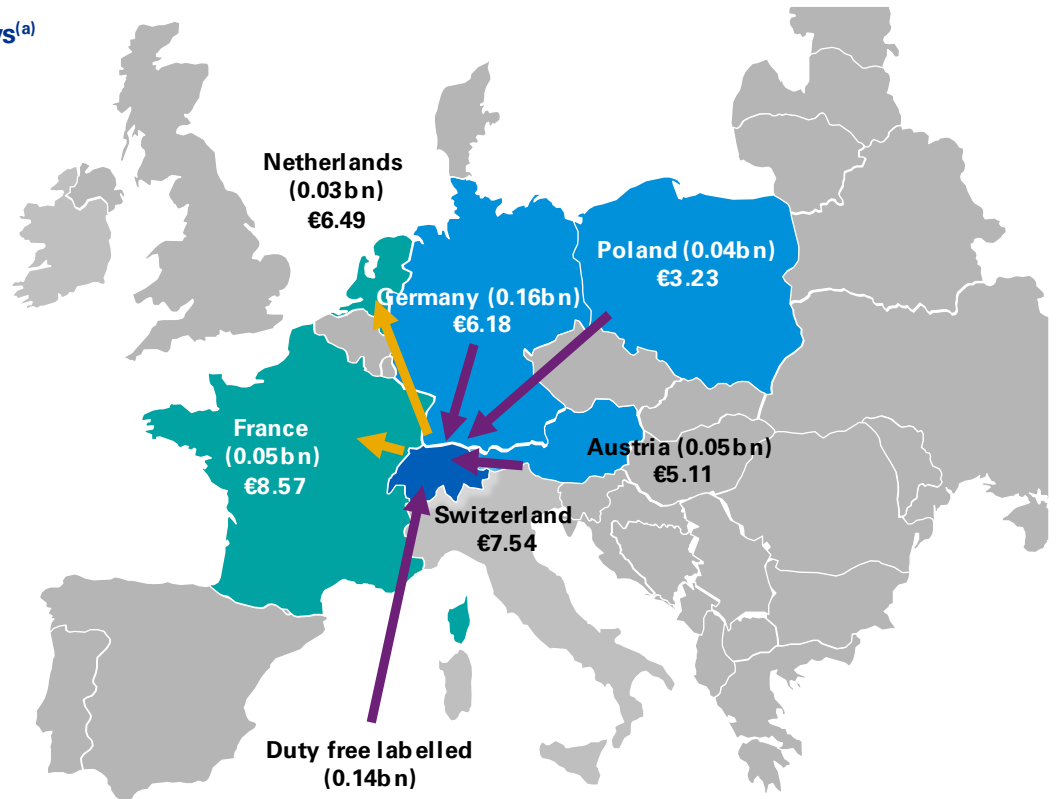
Note: Inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows. Remaining flows are included in the 'Other' category  
 Sources: (1) [Switzerland Federal Statistics Bureau, Foreign border workers by canton of work, country of residence and sex](#); (2) KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section

# Key flows and C&C consumption patterns

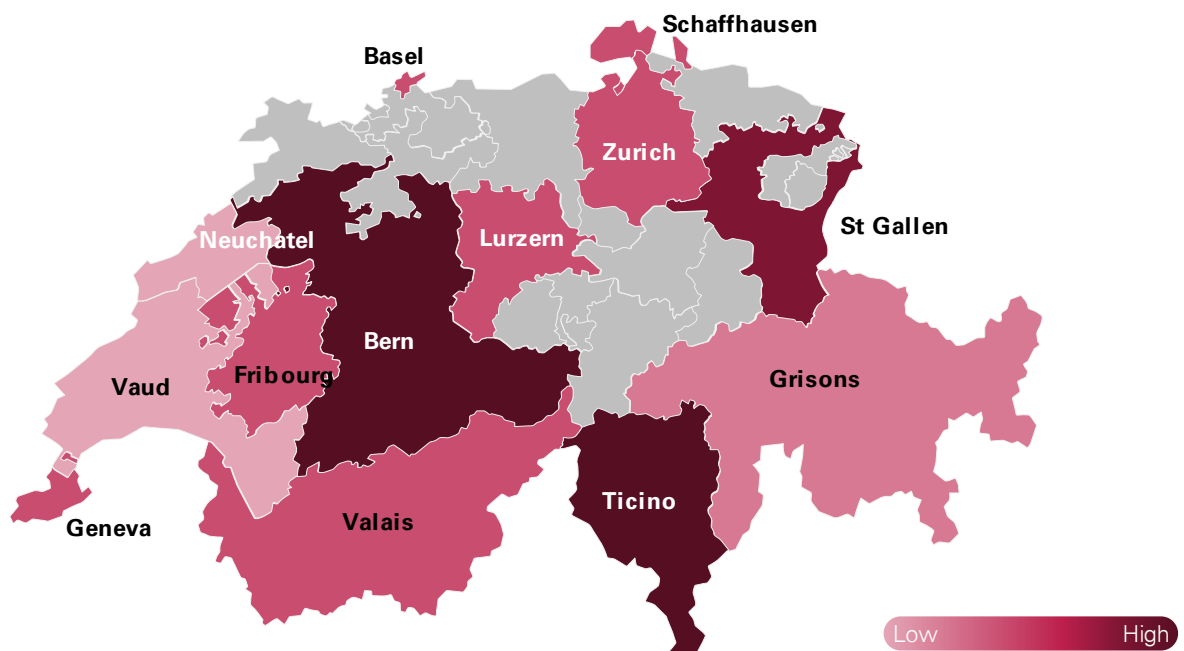
## Key inflows and outflows<sup>(a)</sup>

- Switzerland
- Source
- Destination
- Inflow
- Outflow

**Label description:**  
Country (Inflow/  
Outflow Volume)  
WAP



## C&C % by region<sup>(b)(c)</sup>

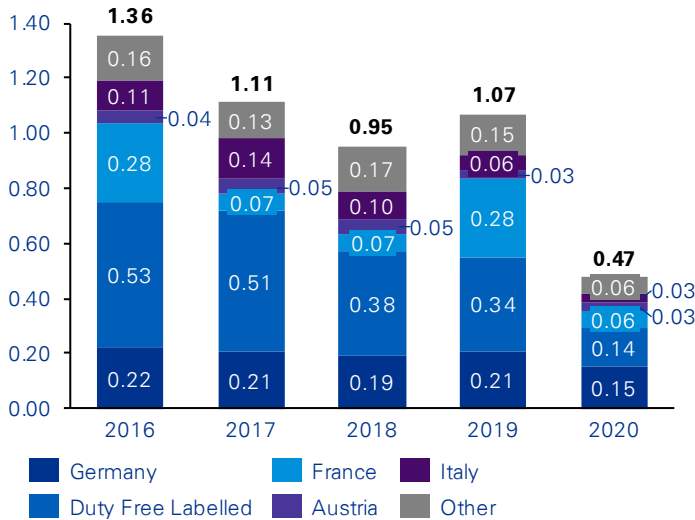


Note: (a) For countries with both inflows and outflows, only the larger of the two flows have been shown (b) C&C scale is relative to this market and is not comparable with other markets in the study, (c) Data not available for regions in grey

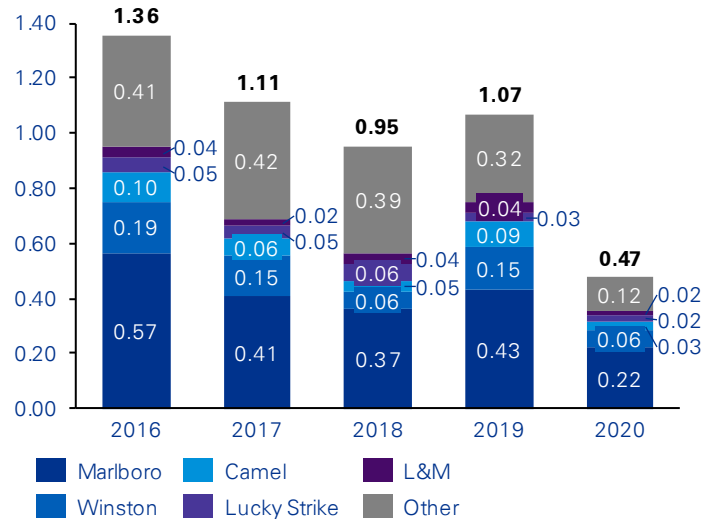
Source: (1) KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section

# ND(L) and C&C flows

**ND(L) by country of origin – 2016-2020 (bn cigarettes)**

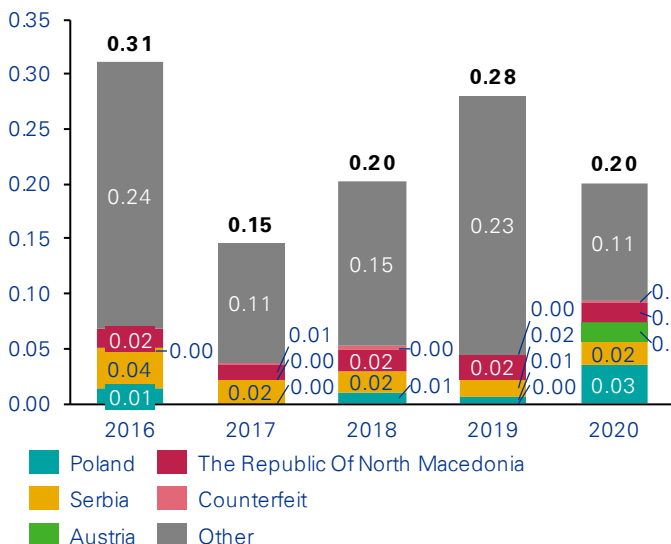


**ND(L) by brand – 2016-2020 (bn cigarettes)**

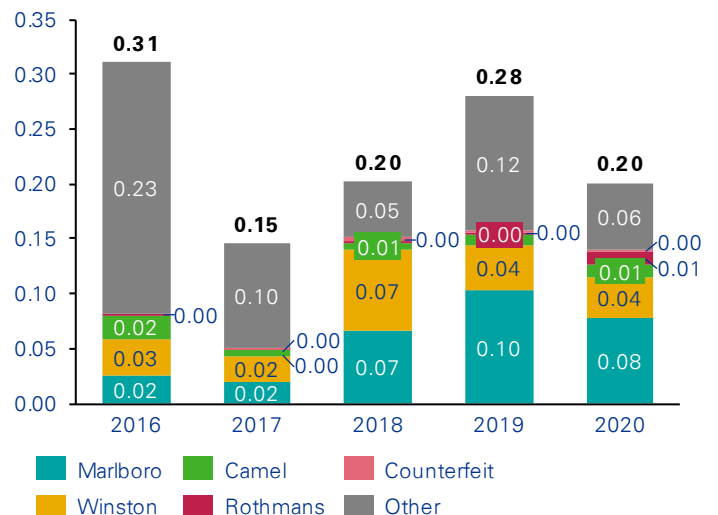


- Legal inflows (ND(L)) declined in 2020, principally driven by reduced flows from France, Germany and Duty Free
- Although overall C&C declined by 28%, C&C from Poland, Serbia and Austria increased
- Bern and Ticino showed the highest regional C&C incidence

**C&C by country of origin – 2016-2020 (bn cigarettes)**



**C&C by brand – 2016-2020 (bn cigarettes)**



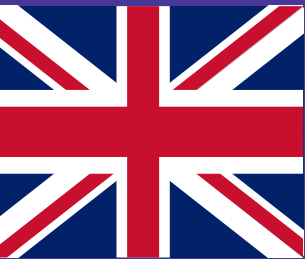
Note: (a) C&C breakdown chart only includes counterfeit volumes related to manufacturers who participate in the empty pack/yellow bag surveys  
 Source: (1) KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section



**KPMG**

UK





# C&C cigarette consumption and total consumption

30.6bn

Cigarettes consumed



-2.20bn on 2019

5.2bn

C&C cigarettes consumed



-0.23bn on 2019

17.1%

Of total consumption was C&C



+0.45%pts on 2019

€2,231m

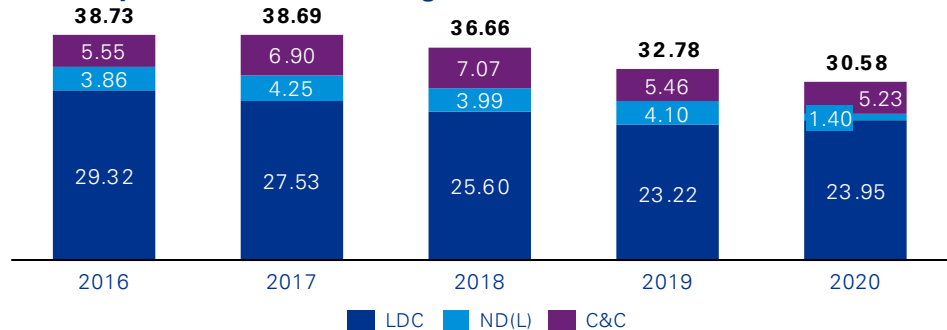
(£1,996m)<sup>(1)</sup>

Estimated total tax revenue lost from C&C



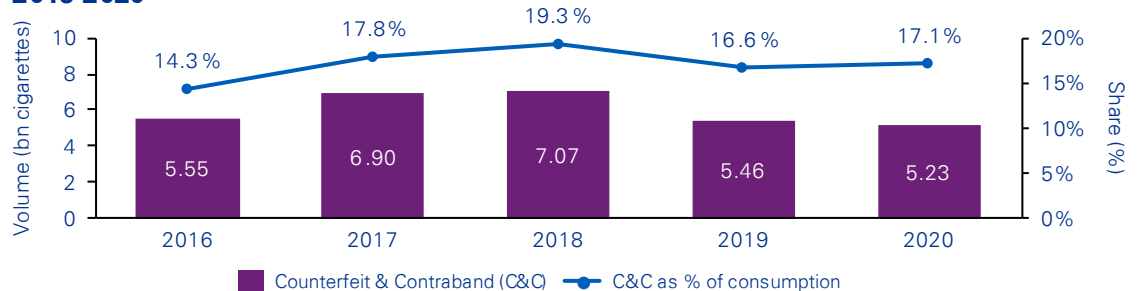
+€40m on 2019

## Total consumption – 2016-2020 (bn cigarettes)

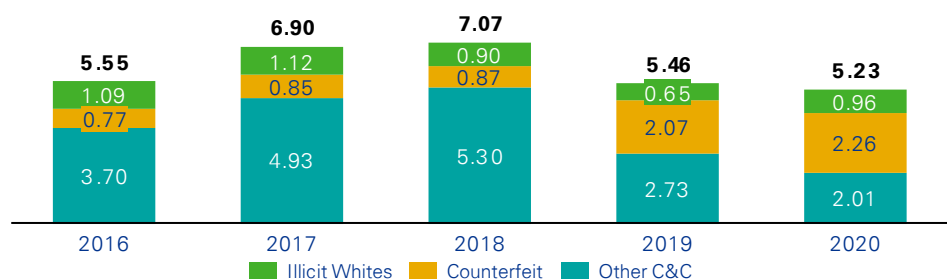


- C&C as a share of total consumption increased by 0.5ppts to 17.1% but declined in actual volume terms
- A decline in Other C&C was offset by an increase in both Illicit Whites and Counterfeit
- The UK recorded the second highest Counterfeit volume in this year's study

## Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2016-2020



## Breakdown of C&C consumption by type – 2016-2020 (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

Sources: KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section (1) EUR 1 = GBP 0.89, InforEuro, European Commission, December 2020,

# Manufactured cigarette consumption, inflows and outflows

## Total manufactured cigarette consumption – 2016-2020

Total UK Consumption						
Billion cigarettes	2016	2017	2018	2019	2020	2019-20 (%)
Legal Domestic Sales (LDS)	29.64	27.92	25.99	23.54	24.13	3%
Outflows	(0.32)	(0.39)	(0.39)	(0.32)	(0.18)	(43%)
Legal Domestic Consumption (LDC)	29.32	27.53	25.60	23.22	23.95	3%
Non-Domestic Legal (ND(L))	3.86	4.25	3.99	4.10	1.40	(66%)
Counterfeit and Contraband (C&C)	5.55	6.90	7.07	5.46	5.23	(4%)
Total Non-Domestic	9.41	11.16	11.06	9.56	6.62	(31%)
<b>Total Consumption</b>	<b>38.73</b>	<b>38.69</b>	<b>36.66</b>	<b>32.78</b>	<b>30.58</b>	<b>(7%)</b>

- Total cigarette consumption declined by 7% in 2020, with increased legal domestic consumption more than offset by reduced non-domestic consumption
- Counterfeit continued to increase and remained the largest non-domestic source of cigarettes in 2020. 13% of the Counterfeit packs identified in the empty pack survey were in plain packaging
- Inflows from Belarus increased to 0.66bn. Almost all of this inflow was illicit
- Travel restrictions as a result of COVID-19 had a major impact on flows to and from the UK
  - Total inflows declined by 31%, with most of the decline within ND(L) (66%)
  - Duty Free cigarettes and inflows from Spain, two of the largest sources historically, declined by 52% and 81% respectively
  - Total outflows from the UK declined by 43%

## Total inflows by country of origin – 2016-2020

Inflows to UK					
Billion cigarettes	2016	2017	2018	2019	2020
Counterfeit	0.77	0.85	0.87	2.07	2.26
Poland	1.51	1.39	1.51	1.14	1.03
Belarus	0.64	0.80	0.78	0.20	0.66
Duty Free Labelled	1.22	1.62	1.28	1.37	0.65
Spain	1.08	1.49	1.51	1.66	0.31
Other	4.19	5.01	5.10	3.12	1.71
<b>Total Inflows</b>	<b>9.41</b>	<b>11.16</b>	<b>11.06</b>	<b>9.56</b>	<b>6.62</b>

## Total outflows by country of origin – 2016-2020

Outflows from UK					
Billion cigarettes	2016	2017	2018	2019	2020
Netherlands	(0.11)	(0.13)	(0.16)	(0.08)	(0.07)
France	(0.04)	(0.04)	(0.04)	(0.02)	(0.04)
Ireland	(0.12)	(0.12)	(0.06)	(0.12)	(0.02)
Germany	(0.01)	(0.03)	(0.03)	(0.02)	(0.02)
Other	(0.05)	(0.08)	(0.10)	(0.08)	(0.03)
<b>Total Outflows</b>	<b>(0.32)</b>	<b>(0.39)</b>	<b>(0.39)</b>	<b>(0.32)</b>	<b>(0.18)</b>

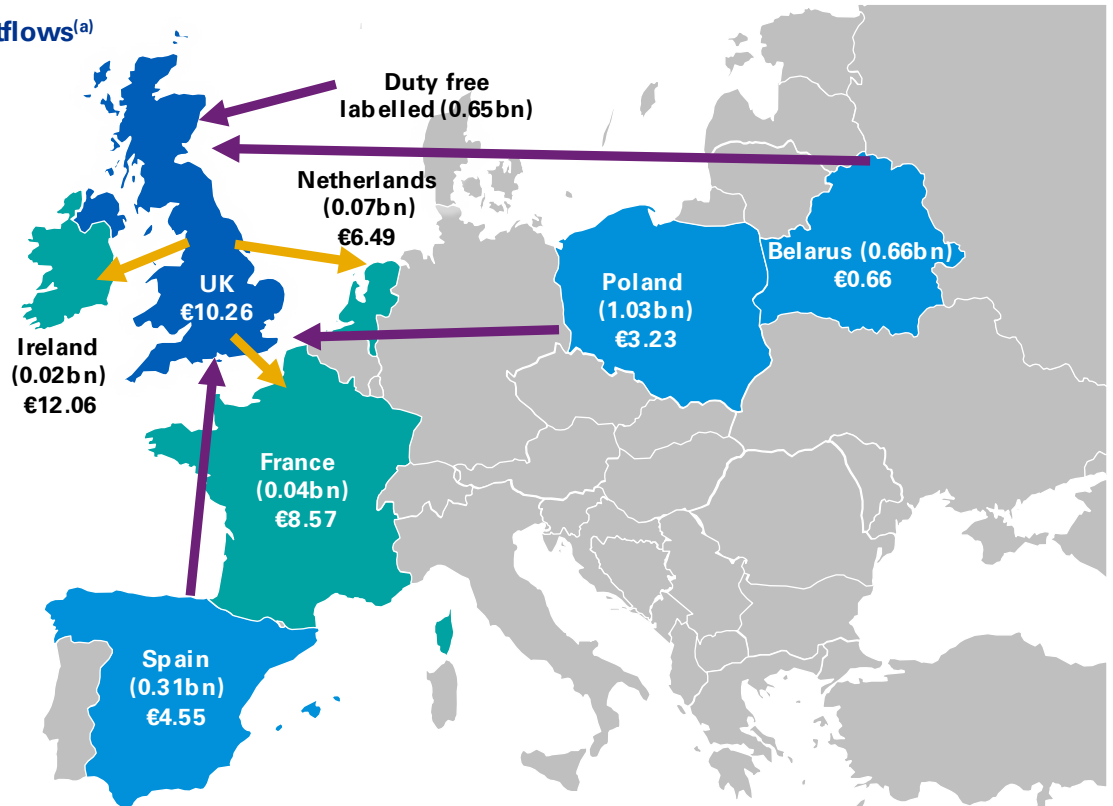
Note: Inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows. Remaining flows are included in the 'Other' category  
 Source: KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section

# Key flows and C&C consumption patterns

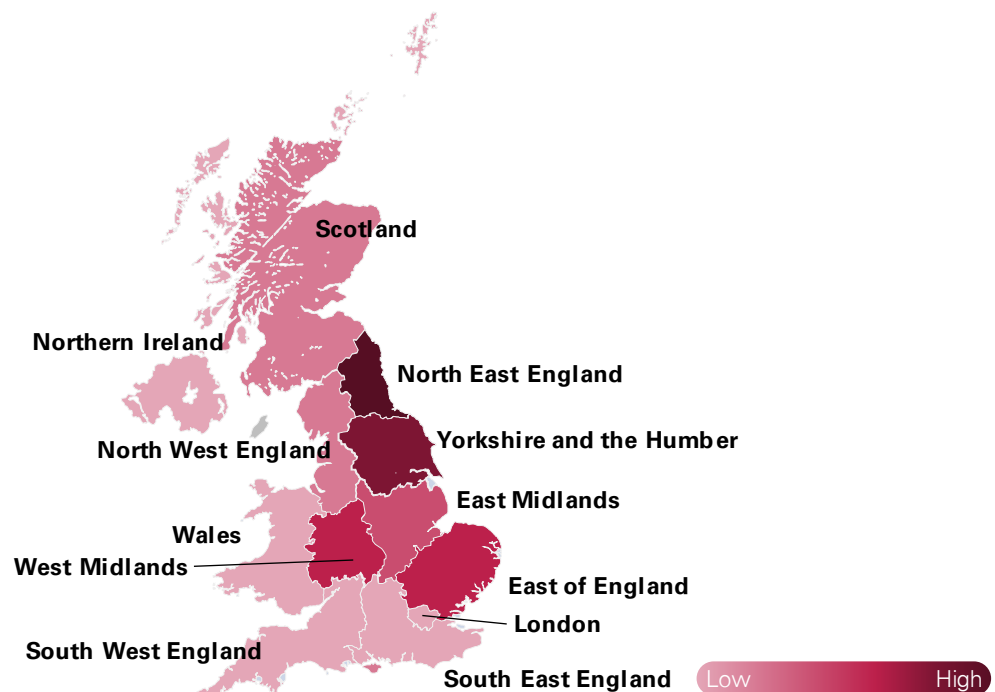
## Key inflows and outflows<sup>(a)</sup>

- UK
- Source
- Destination
- Inflow
- Outflow

**Label description:**  
Country (Inflow/  
Outflow Volume)  
WAP



## C&C % by region<sup>(b)(c)</sup>



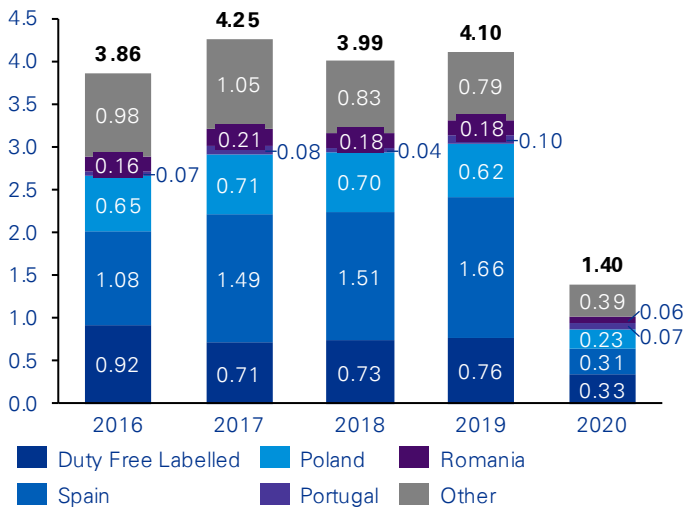
Note: (a) For countries with both inflows and outflows, only the larger of the two flows have been shown (b) C&C scale is relative to this market and is not comparable with other markets in the study, (c) Data not available for regions in grey

Source: (1) KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section

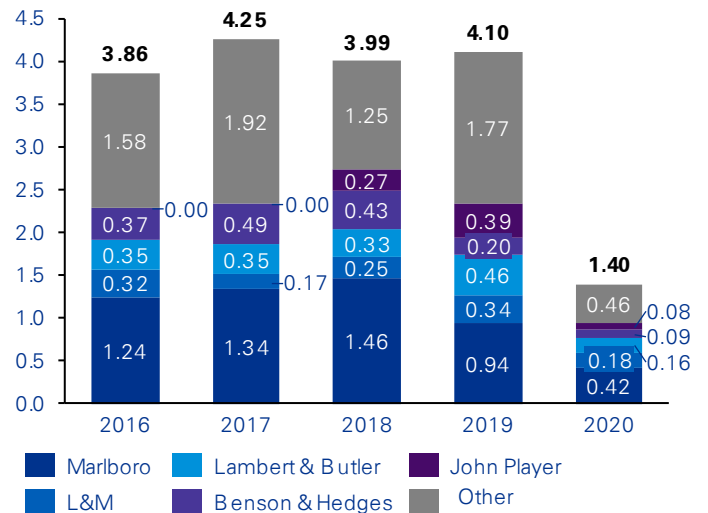


# ND(L) and C&C flows

**ND(L) by country of origin – 2016-2020 (bn cigarettes)**



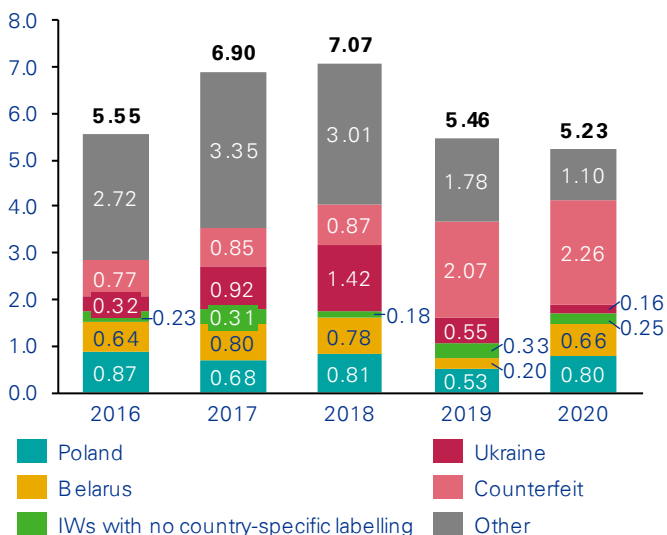
**ND(L) by brand – 2016-2020 (bn cigarettes)**



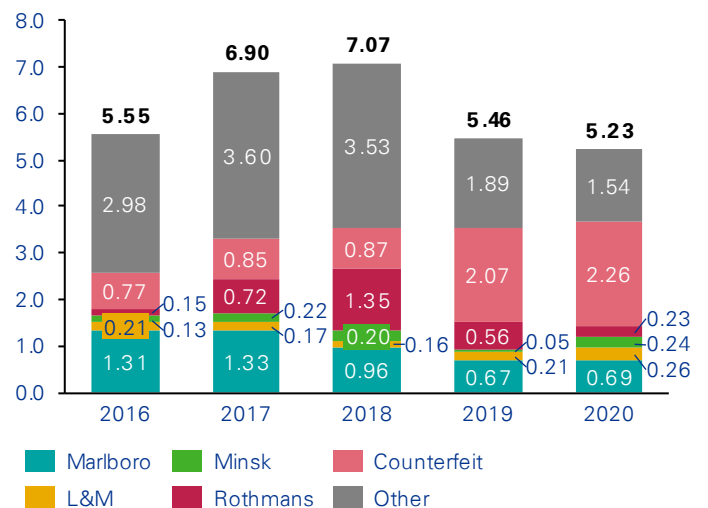
— Legal inflows (ND(L)) were impacted by border closures and travel disruption as a result of COVID-19, with the traditionally large flows from Duty Free, Spain and Poland particularly impacted

— The highest levels of C&C were found in North East England, followed by Yorkshire and the Humber

**C&C by country of origin – 2016-2020 (bn cigarettes)**



**C&C by brand – 2016-2020 (bn cigarettes)**



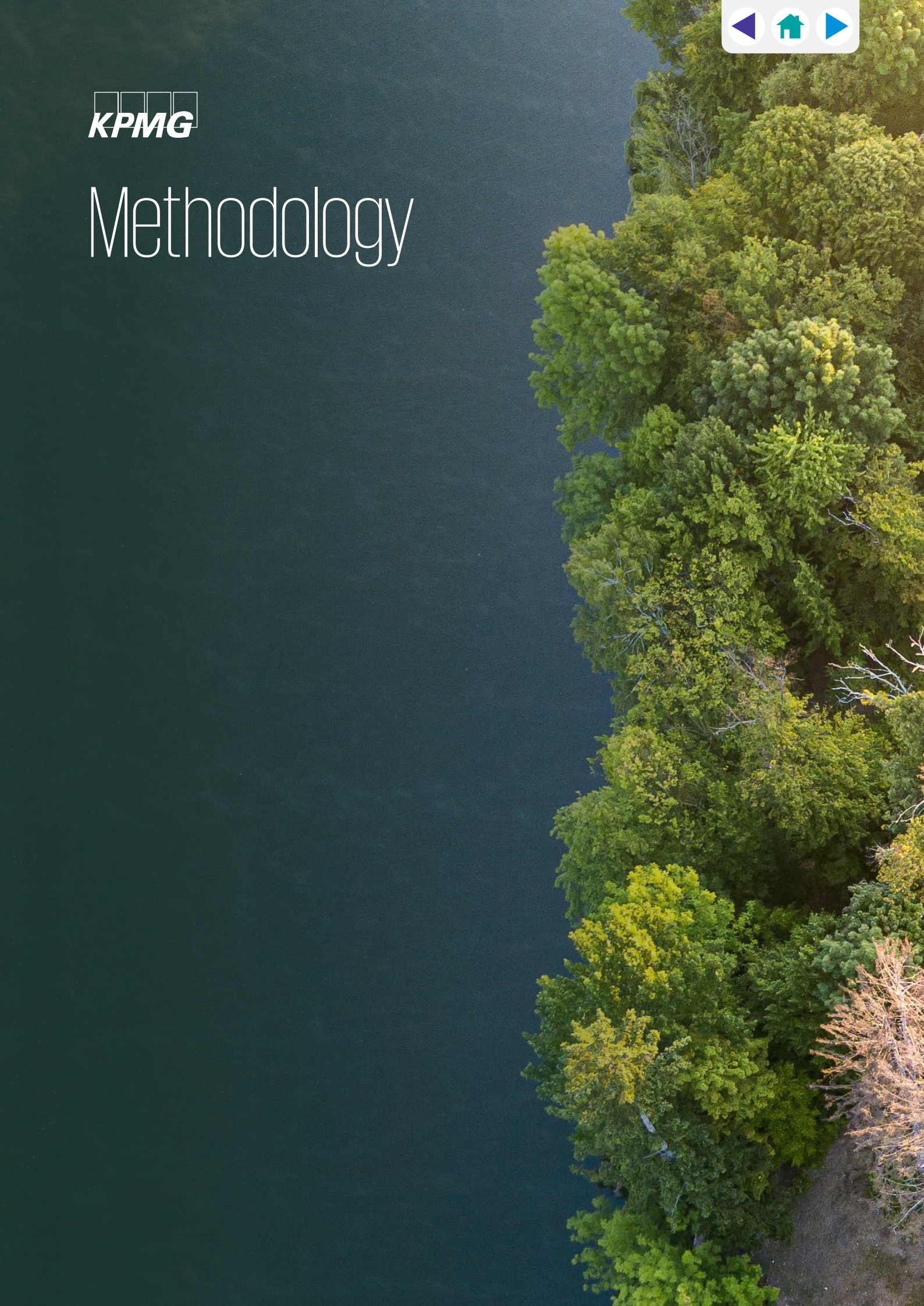
Note: (a) C&C breakdown chart only includes counterfeit volumes related to brands of manufacturers who participate in the empty pack/yellow bag surveys

Source: (1) KPMG EU Flows Calculation 2020. For detailed methodology and a list of sources, refer to the methodology section

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# Methodology



# Overview

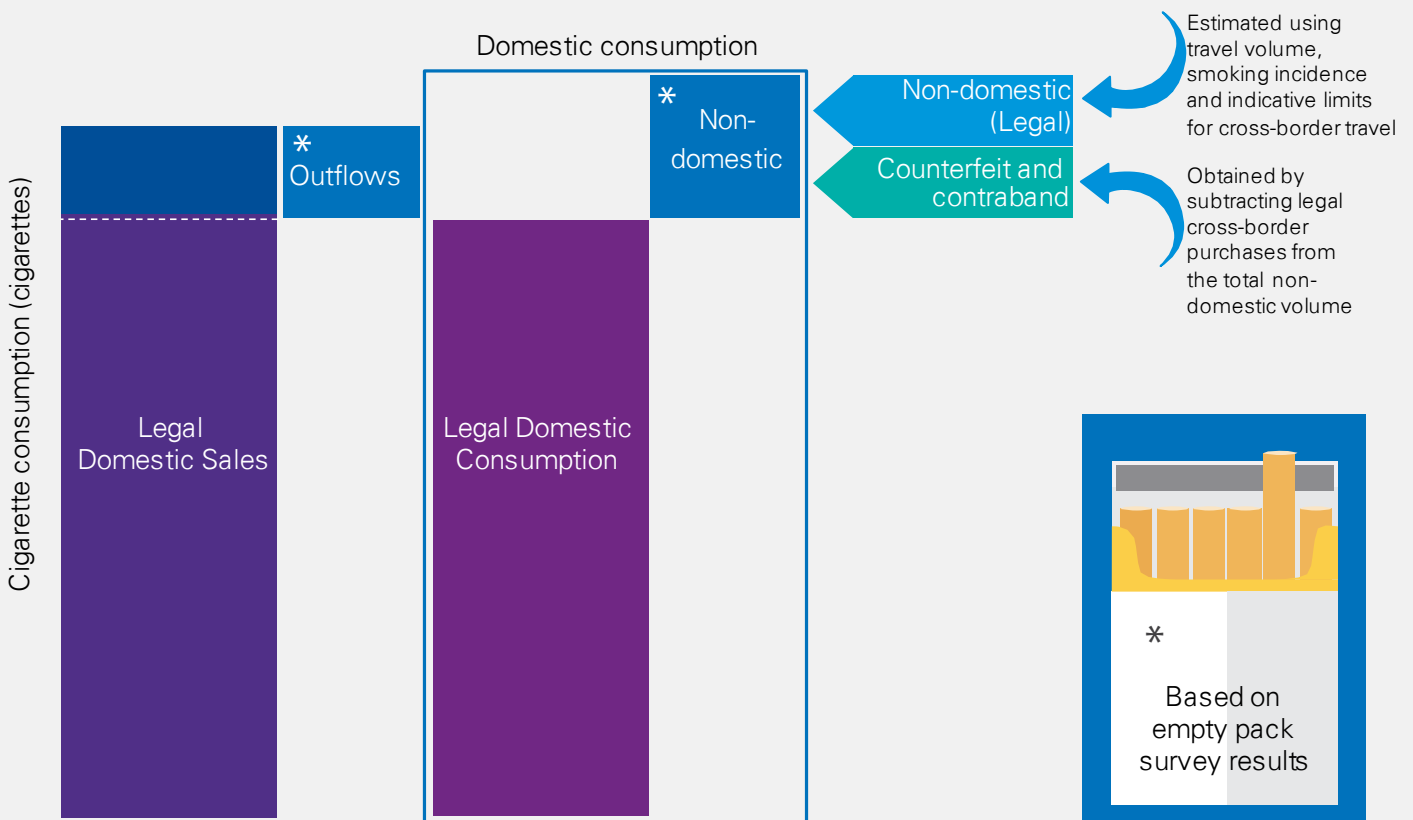
<p><b>KPMG has developed and refined its methodology for estimating annual counterfeit and contraband incidence across the 27 EU markets and the UK since 2006, with Norway and Switzerland included in the annual study since 2014</b></p>	<p>The methodology has been tested extensively and refined to seek to ensure that it delivers robust and justifiable results</p> <ul style="list-style-type: none"> <li>— Our approach integrates multiple sources and custom-built analytical tools</li> <li>— In 2018, 2019 and 2020, the annual 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 the 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’).</li> <li>— As a part of the 2018 study an external panel of experts was appointed by KPMG, 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 study and the report. For details on the panel of experts, refer to the 2018 Project Stella report</li> </ul>
<p><b>The methodology is based primarily on objective evidence from LDS and empty pack survey results, which are input to the bespoke EU Flows Calculation</b></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"> <li>— 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 the annual study and 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</li> <li>— 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)</li> <li>— Inflows from other countries are then added to estimate the total consumption within a market</li> <li>— 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</li> </ul>
<p><b>Empty pack survey results provide a robust indication of the incidence of non-domestic and counterfeit packs and country of origin</b></p>	<p>An 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"> <li>— The empty pack surveys were separately commissioned by the tobacco manufacturers and conducted by independent market research agencies using a consistent methodology across all the EU markets, the UK, Norway and Switzerland, allowing for direct comparison of data and the identification of inflows and outflows between all of the countries analysed</li> <li>— Over 420,000 packs were collected in 2020 as part of this research</li> <li>— 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 report</li> <li>— 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”</li> </ul>
<p><b>Tourism &amp; travel trends are used to estimate legal non-domestic cigarette purchases</b></p>	<p>Tourism and travel data provided by publicly-available 3<sup>rd</sup> 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"> <li>— United Nations World Tourism Organisation<sup>(a)</sup> data is the primary source used to identify travel trends, supplemented with Euromonitor and other publicly available data</li> <li>— European Commission releases<sup>(b)</sup> 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</li> </ul>

Notes: (a) UNWTO, (b) EC Excise Duty Tables, July 2020 (Part III – Manufactured Tobacco)

# Overview

<p><b>There are some specific limitations in the methodology</b></p>	<p>Given the complexity of measuring C&amp;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"> <li>— 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</li> <li>— 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</li> </ul>
<p><b>To help improve the accuracy of results, some minor refinements were necessary at a country level</b></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"> <li>— 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. Refer to page 186 for further details</li> </ul>

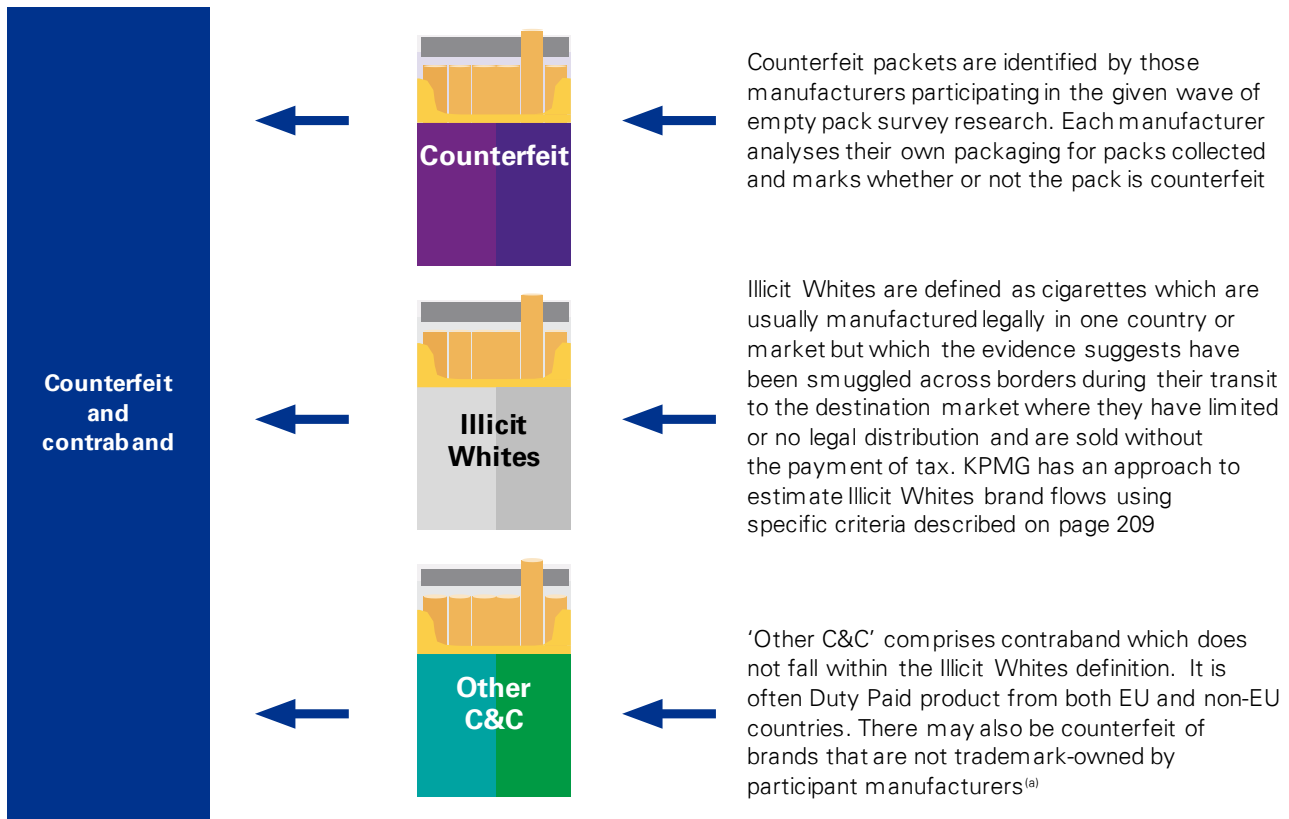
**This methodology uses LDS, empty pack survey results and other consumer research to estimate the volume of C&C cigarettes consumed in the EU**



**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**

# 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 42% 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<sup>(1)</sup>

#### There are several possible explanations for this difference:

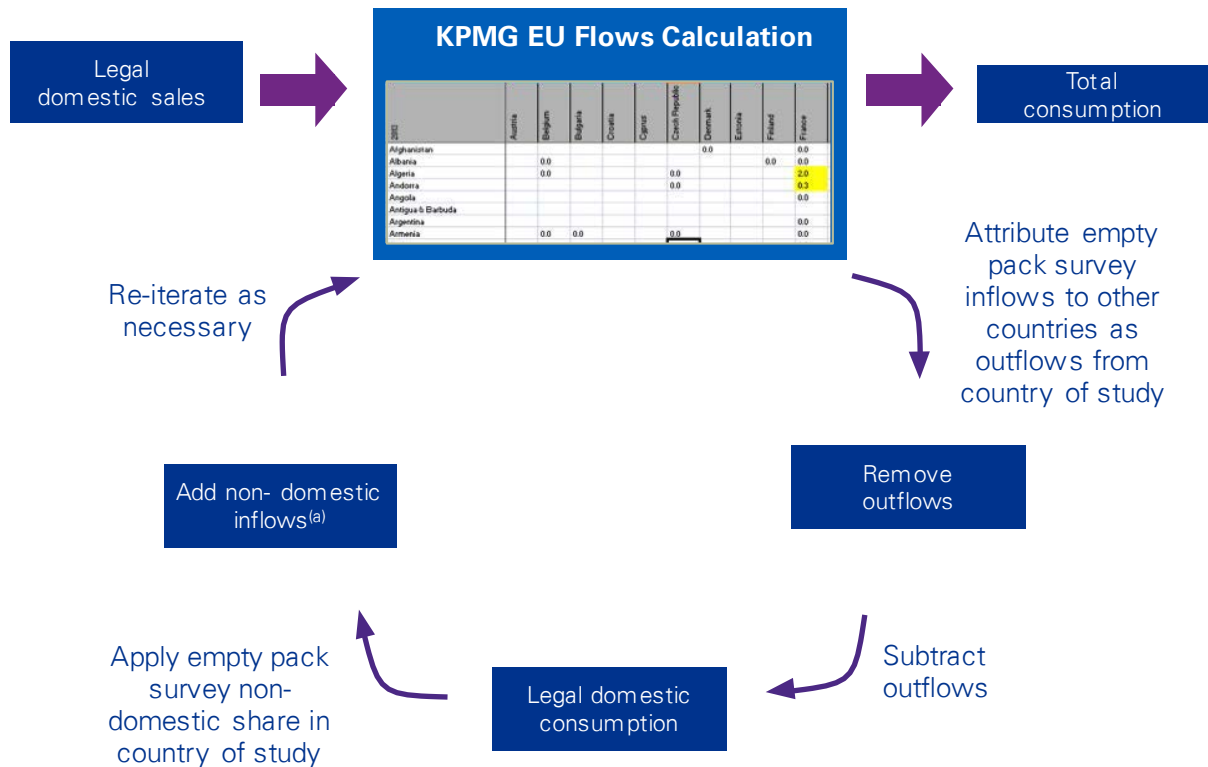
- Seizures are often intelligence led and tend to target specific manufacturing or transport operations. It is difficult to determine what share of total illicit activity/consumption these seizures represent
- Illicit Whites and counterfeit cigarettes are typically seized in larger volumes than 'Other 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

# KPMG EU Flows Calculation

## Primary information sources and tools – EU Flows Calculation



### The KPMG EU Flows Calculation is a dynamic, iterative approach that is principally based on LDS and empty pack survey results

- LDS volumes are the starting point of the calculation from which outflows of legal sales to other countries are then subtracted to estimate legal domestic consumption in a market
- Non-domestic inflows from other countries are then added back in to give an estimate for the total consumption within a market
- The calculation is then re-iterated as necessary reflecting the relationship of inflows and outflows between all 27 EU countries, UK, Norway and Switzerland
- Empty pack survey results provide a measurement of the share of non-domestic packs by country of origin in all markets
  - Empty pack survey results provide a consistent source across all 30 markets of non-domestic packs by country of origin from which we can estimate total product outflow from each market to the other 29 markets

Note: (a) The methodology to identify the ND(L) and C&C components of non-domestic flows is explained in the ND(L) methodology section

# Legal domestic sales

## **LDS data is sourced from Nielsen and other independent agencies**

- Since the beginning of this annual study in 2006, LDS estimates for all brands have been sourced from Nielsen and other independent sources

## **Where appropriate, 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, we have deemed it more appropriate to incorporate these recognised estimates of LDS in the KPMG EU Flows Calculation. This is the case in 2020 with:

- Latvia: LDS figure reported by the State Revenue Service
- Bulgaria: LDS figure reported by the Bulgarian Customs Authority

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

# Empty pack survey methodology (1)

<p><b>Overview</b></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"> <li>— Empty pack surveys are 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.</li> <li>— Results are 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</li> <li>— Results are not subject to respondent behaviour and are therefore less prone to sampling errors than many other alternative methodologies</li> <li>— Results reflect actual overall non-domestic share and provide a good snapshot of brands consumed</li> </ul>
<p><b>Process</b></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"> <li>— The independent market research agencies randomly collect empty packs of any brand and market variant from streets and easy access bins</li> <li>— 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</li> <li>— 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"> <li>– 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</li> </ul> </li> <li>— 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</li> <li>— 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</li> <li>— 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</li> </ul>
<p><b>Coverage</b></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 seek to ensure the sample is nationally representative</p> <ul style="list-style-type: none"> <li>— Small surveys (300-4,999 packs): Belgium, Croatia, Cyprus, Estonia, Latvia, Luxembourg, Malta, Portugal, Slovenia</li> <li>— Medium surveys (5,000-9,999 packs): Austria, Denmark, Finland, Ireland, Lithuania, Netherlands, Norway, Slovakia, Switzerland</li> <li>— Large surveys (10,000 packs or more collected): Bulgaria, Czech Republic, France, Germany, Greece, Hungary, Italy, Poland, Romania, Spain, Sweden, UK</li> </ul>



# Empty pack survey methodology (2)

## Estimate of non-domestic incidence on a stick basis since 2012

<b>Overview</b>	<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"> <li>— 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</li> </ul>
<b>Process</b>	<p>Empty pack survey results provide the number of cigarettes in each packet</p> <ul style="list-style-type: none"> <li>— 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</li> </ul>
<b>Impact</b>	<p>The effect of this change on non-domestic incidence is 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"> <li>— 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</li> <li>— 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</li> </ul>

# Empty pack survey methodology

## Empty pack survey methodology<sup>(1)</sup>



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, 5,040 are collected in Paris, which represents over 10% of the packs collected. 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 by the manufacturers and analysed to estimate the non-domestic incidence and contraband and counterfeit volumes

Source: (1) Third party market research agencies

# Empty pack survey – Adjustment overview

## 2020 empty pack survey adjustments

Where necessary, we make adjustments to the empty pack survey results in our analysis 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 this year are covered below:

Empty pack survey	Explanation	Method	Countries where adjustment made
<b>1. Brand oversampling</b>	Domestic packs collected by brand in the empty pack survey deviate significantly from the domestic brand shares	<ul style="list-style-type: none"> <li>— Some brands may be oversampled which we can check through a comparison with the LDS</li> <li>— KPMG assumes that an oversampling of brands domestically will result in an oversampling of brands non-domestically. As a result we down-weight all non-domestic packs from this brand to the domestic market share</li> </ul>	France (Marlboro), Spain (Ducal)
<b>2. Adjustments to specific country flows</b>	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"> <li>— Adjustments were made when the empty pack surveys over or under sampled some flows as highlighted by other sources of data</li> <li>— Some examples include: <ul style="list-style-type: none"> <li>- Border sales data from Spain, Belgium and Luxembourg indicated that inflows from these countries were being under sampled in the French empty pack survey. Hence, the inflows from these countries were adjusted</li> <li>- Border sales data from Slovenia indicated that flows from Slovenia were over sampled in the Austrian empty pack survey. Hence, the inflows from Slovenia were adjusted</li> <li>- Travel data from Greece, Bulgaria, Latvia and Romania indicated that flows from these countries were being over sampled in the UK empty pack survey, due to change in the timing of the UK empty pack survey in 2020. Hence the flows from these countries in to the UK were adjusted. Similar over sampling was noted in the Swiss empty pack survey for flows from Italy and Portugal, and in the Norwegian empty pack survey for flows from Sweden. Similar adjustments have been made to the flows into Switzerland and Norway</li> <li>- Based on travel data from Euromonitor and government estimates, it was observed that Duty Free inflows were oversampled in the French and Greek empty pack surveys. Therefore, adjustments were made to the Duty Free flows into both these markets</li> </ul> </li> </ul> <p>A detailed list of empty pack survey adjustments and their impact can be found in the following pages</p>	Austria, France, Greece, Norway, Switzerland, UK

# Empty pack survey adjustments

## 2020 empty pack survey – adjustments made in KPMG analysis

Country	Sample dates	Packs collected	Number of cities	Adjustment	Impact
Austria	Q4: Nov	6,500	24	Inflows from Slovenia did not reflect the decline in traveller volumes and manufacturers' border sales data. The flow from Slovenia was adjusted to reflect these data points, with the assumption that cross-border sales are the main source of inflows to Austria from Slovenia	Inflows from Slovenia reduced from 0.20bn to 0.11bn
Belgium	Q4: Oct	2,800	18	None	n/a
Bulgaria	Q1: Feb-Mar Q2: Jun-Jul 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: May-Jun Q4: Sep-Oct	21,004	30	None	n/a
Denmark	Q4: Sep-Oct	5,000	6	None	n/a
Estonia	Q4: Sep	3,300	14	None	n/a
Finland	Q3: Aug-Sep	5,000	10	None	n/a

# Empty pack survey adjustments

## 2020 empty pack survey – adjustments made in KPMG analysis

Country	Sample dates	Packs collected	Number of cities	Adjustment	Impact
France	Q1: Feb Q2: Jun Q3: Aug-Sep Q4: Oct, Dec	46,000	126	<p><b>Country flows adjustments:</b></p> <p>Inflows from Spain, Luxembourg and Belgium were adjusted using publicly available data sources for local border populations, car ownership, average daily consumption, smoking incidence, adult population, etc. (from sources such as Eurobarometer, WHO, European Environment Agency, France National Institute of Statistics and Economic Studies, etc.), and were corroborated with manufacturer border sales data (market estimates using sales data)</p> <ul style="list-style-type: none"> <li>— Inflows were adjusted to reflect tourism trends and border sales, which indicate higher flows into France</li> </ul> <p>Inflows from Algeria</p> <ul style="list-style-type: none"> <li>— Empty pack survey results did not align with traveller trends in 2020. Therefore, the inflows from Algeria were adjusted to reflect air and sea traveller trends from publicly available data sources (Ministry of Ecological Transition and Port of Marseille Fos), which indicated lower flows into France</li> </ul> <p><b>Duty free adjustment:</b></p> <ul style="list-style-type: none"> <li>— Empty pack survey results suggested a decline in flows in 2020 but were not reflective of the large declines in travel movements. The inflows were adjusted to reflect tourism trends and border closures using available travel data from Euromonitor</li> </ul> <p><b>Brand adjustment:</b></p> <ul style="list-style-type: none"> <li>— A comparison of Marlboro LDS with domestic packs collected in the empty pack survey indicated that the brand was oversampled in the empty pack survey. Therefore the volume of non-domestic packs were reduced, using the assumption that non-domestic packs were oversampled to the same extent as domestic packs</li> </ul> <p>The adjustments above are not mutually exclusive and the Duty free and Brand adjustments also impact the Country flows adjustments</p>	<ul style="list-style-type: none"> <li>— Inflows from Spain increased from 0.99bn to 2.77bn</li> <li>— Inflows from Luxembourg increased from 0.47bn to 0.72bn</li> <li>— Inflows from Belgium increased from 0.48bn to 1.05bn</li> <li>— Inflows from Algeria reduced from 1.42bn to 0.44bn</li> <li>— France Duty Free ND decreased from 1.02bn to 0.51bn</li> <li>— Reduction of ~1bn of non-domestic Marlboro cigarettes</li> </ul>

# Empty pack survey adjustments

## 2020 empty pack survey – adjustments made in KPMG analysis

Country	Sample dates	Packs collected	Number of cities	Adjustment	Impact
Germany	Every month	120,000	43	In 2020, data for regionally-weighted counterfeit packs was available for the first time (historically, counterfeit data provided was unweighted). The provision of weighted data in 2020 allows a more precise counterfeit estimate	n/a
Greece	Q1: Feb Q2: Jun Q3: Sep	18,000	20	<b>Duty free adjustment:</b> — Empty pack survey results highlighted an increase in Duty Free inflows in 2020. However, this was not consistent with the large decline in travel volumes. The inflows were adjusted to reflect travel trends and border closures using travel data from Bank of Greece	Greece Duty Free ND decreased from 0.33bn to 0.02bn
Hungary	Q3: Aug-Oct	17,240	40	None	n/a
Ireland	Q3: Oct	5,000	22	None	n/a
Italy	Q1: Feb Q3: Jul Q4: Oct-Nov	30,000	85	None	n/a
Latvia	Q4: Sep	4,900	25	None	n/a
Lithuania	Q4: Sep	5,800	20	None	n/a
Luxembourg	Q4: Oct	200	2	None	n/a
Malta	Q4: Oct	1,000	8	None	n/a
Netherlands	Q4: Sep-Oct	7,000	50	None	n/a
Norway	Q3: Oct	5,000	8	<b>Country flows adjustment:</b> Inflows from Sweden — Empty pack survey results did not reflect the large decline in traveller volumes observed in government statistics — Therefore, the non-domestic inflows from Sweden were adjusted to be in line with the travel volume change between 2019 and 2020, with the assumption that a large proportion of Sweden to Norway flows are driven by cross-border shopping	Inflows from Sweden declined from 0.14bn to 0.02bn
Poland	Q3: Aug Q4: Oct-Nov	25,000	40	None	n/a
Portugal	Q3: Sep	3,000	10	None	n/a
Romania	Q1: Jan Q2: May Q3: Jul, Sep-Oct Q4: Oct-Dec	12,646	42	None	n/a

# Empty pack survey adjustments

## 2020 empty pack survey – adjustments made in KPMG analysis

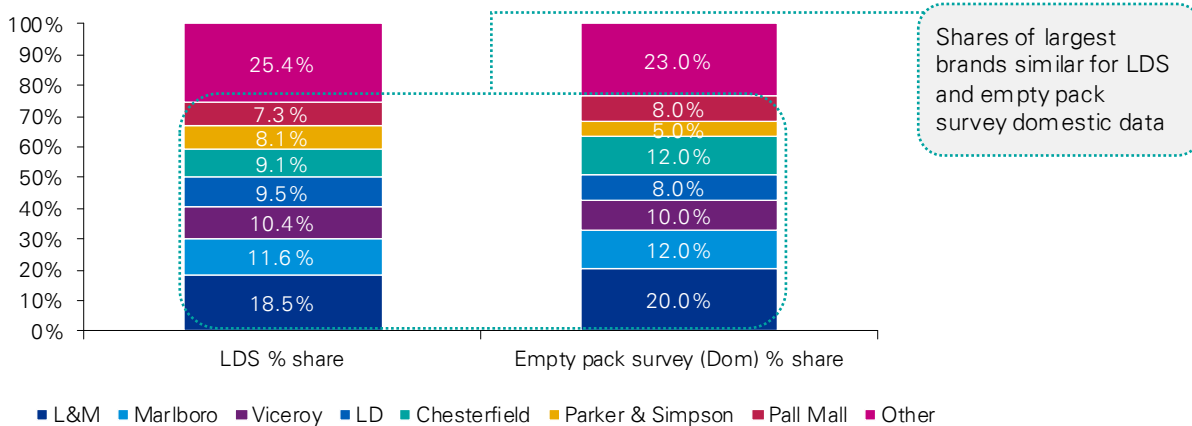
Country	Sample dates	Packs collected	Number of cities	Adjustment	Impact
Slovakia	Q3: Sep	5,000	25	None	n/a
Slovenia	Q4: Sep-Oct	3,000	8	None	n/a
Spain	Q4: Sep-Oct	15,000	58	<b>Brand adjustment:</b> — A comparison of Ducal LDS with domestic packs collected in the empty pack survey indicated that the brand was oversampled in the empty pack survey (specifically in certain regions). Therefore the volume of non-domestic packs were reduced, using the assumption that non-domestic packs were oversampled to the same extent as domestic packs	— Inflows for Ducal brand reduced from 1.75bn to 0.81bn
Sweden	Q3: Sep	10,000	29	None	n/a
Switzerland	Q3: Aug-Sep	5,600	20	<b>Country flows adjustment:</b> Inflows from Italy and Portugal — Empty pack survey results suggested a large increase of inflows from Italy and Portugal compared to historical figures and were not reflective of the decline in travel movement over 2019-20 — Therefore, the non-domestic inflows from Italy and Portugal were adjusted to be in line with the traveller volume change between 2019 and 2020, with the assumption that travellers are the main source of inflows from these countries	— Inflows from Italy declined from 0.19bn to 0.03bn — Inflows from Portugal reduced from 0.04bn to 0.01bn
UK	Q3: Sep-Oct	12,700	105	<b>Country flows adjustment:</b> Inflows from Greece, Bulgaria, Latvia and Romania — Empty pack survey results suggested a large increase of inflows from Greece, Bulgaria, Latvia and Romania which was not in line with the significant decline in tourist flows over 2019-20 — This appears to be driven by the Q3 UK pack collection period coinciding with the period when lockdown restrictions were lifted and international travel permitted, which would lead to overstated non-domestic volumes as Q3 is not representative of the majority of the year when travel restrictions were in place — Therefore, non-domestic inflows from Greece, Bulgaria, Latvia and Romania were adjusted to be in line with the traveller trend (from Euromonitor and Bank of Greece) noted between 2019 and 2020	— Inflows from Greece declined from 0.42bn to 0.02bn — Inflows from Latvia declined from 0.016bn to 0.001bn — Inflows from Bulgaria reduced from 0.26bn to 0.08bn — Inflows from Romania declined from 0.62bn to 0.16bn

# Empty pack survey analysis

## 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 domestic sales data (LDS)

- If brand shares of domestic origin packs closely reflect the brand shares seen in LDS, we consider empty pack surveys to be 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, it should minimise any bias towards any specific brand being collected, albeit as with any sampling process there may be sampling errors or anomalies, for which we check and adjust appropriately
- An illustrative example is shown below, for Poland

### Comparison of LDS and domestic empty pack survey brand share, using illustrative data – Poland<sup>(a)</sup>



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



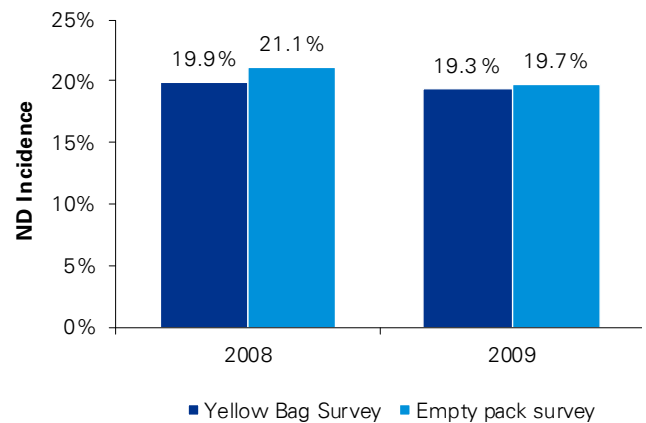
# Empty pack survey analysis

## Empty pack survey comparison

### Comparison of empty pack survey analysis

- A potential criticism of the empty pack survey is that it samples discarded cigarette packs rather than household waste and therefore does not accurately reflect household consumption. 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, carried out by Ipsos, collected 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.

**Comparison of empty pack survey and Yellow Bag Survey, Germany - 2008-2009<sup>(1)(2)(3)(a)(b)</sup>**

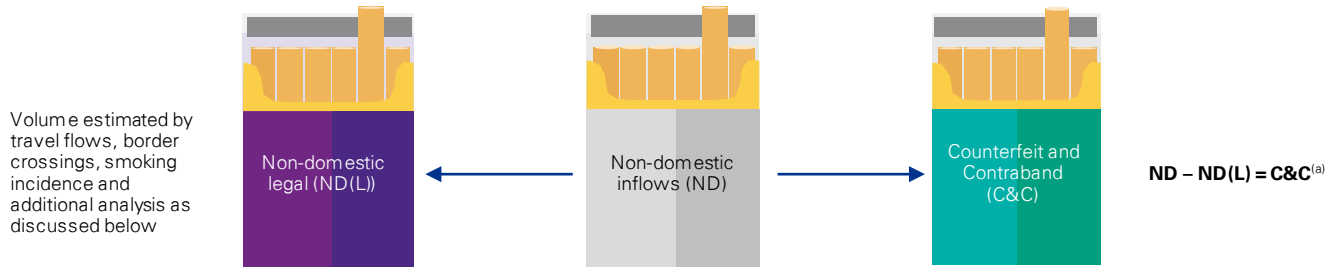


Notes: (a) The comparison between methodologies is made on a "sticks basis" in 2008 and 2009 rather than a packs basis. These were the only years for which both yellow bag survey and empty pack survey were available

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

# Non-domestic legal analysis (1)

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



**ND(L) was estimated 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**

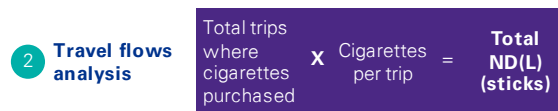
ND(L) was estimated using 2 methods:

### 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), Euromonitor, national statistics offices and other publically available sources were used to estimate 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 estimate the total number of trips where cigarettes are purchased. Smoking prevalence data for 2020 was provided by WHO and Euromonitor
- We 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) <sup>(1)</sup>	ND(L) (bn sticks)	% of ND
Belgium	0.78	0.78	100%

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

Notes: (a) KPMG estimates 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 (3) Euromonitor (4) UNICEF (5) WHO

# Non-domestic legal analysis (2)

## Non-domestic legal brand split analysis and assumptions

### Illustrative example of ND(L) by brand approach



### Illustrative example of Brand Share calculation



**Having estimated the volume of ND(L) inflows on a country basis as detailed on the previous page, the brand share was estimated 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 estimated to be the same as the non-domestic share of these brands
- ND(L) volume by brand was estimated as the product of the total ND(L) inflow and the brand percentage share

# Non-domestic legal adjustments

## 2020 non-domestic legal adjustments

Country	Adjustment
Austria	<b>ND(L) from Czech Republic</b> Assumed to be predominately legal due to the countries' proximity and high non-tourism travel volumes
	<b>ND(L) from Slovenia</b> Assumed to be predominately legal due to high non-tourism travel volumes
	<b>ND(L) from Slovakia</b> 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	<b>ND(L) from Luxembourg</b> 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	None
France	<b>Change in intra-EU cigarette cross-border legal limit</b> France Authorities changed the legally allowed pack limit from 40 packs to 10 packs for all EU countries with effect from 1st August 2020. 2020 ND(L) was re-calculated on a pro-rata basis (using travellers volume by month) from all EU origins to account for the change in the legal limit
	<b>ND(L) from Spain, Belgium and Luxembourg</b> 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 local border populations, car ownership, average daily consumption, smoking incidence, adult population, 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 shopper crossings are not captured in tourist data
	<b>ND(L) from Algeria</b> ND(L) in France from Algeria was estimated using traveller volumes from the WTO and Bulletin Statistics, 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
	<b>ND(L) from Duty Free</b> Duty Free ND(L) was increased by 0.1bn 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

# Non-domestic legal adjustments

## 2020 non-domestic legal adjustments

Country	Adjustment
Germany	<p><b>ND(L) from Czech Republic</b> Given borders were closed to travellers for only part of the year (approximately 3 months), free movement of workers continued throughout the year, apparent cross-border sales stock piling by consumers ahead of and after border closure periods, and Czech packs being found in a similar regional and brand mix in the 2020 empty pack survey as in 2019, the ND(L) share in 2020 has been assumed to be same as 2019. Czech Republic ND(L) was calculated at 3.30bn</p> <p><b>ND(L) from Poland</b> Given free movement of workers continued throughout the year, apparent cross-border sales stock piling by consumers ahead of and after border closure periods, and Polish packs being found in a similar regional and brand mix in the 2020 empty pack survey as in 2019, the ND(L) share in 2020 has been assumed to be same as 2019. Poland ND(L) was calculated at 3.76bn</p> <p><b>ND(L) from Duty Free</b> Duty Free ND(L) was increased by 0.10bn 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 carried out on Duty Free tobacco shoppers. This adjustment is also made in the UK and France where similar research exists</p> <p><b>ND(L) from Luxembourg</b> Assumed to be predominately legal due to the high number of border crossings</p>
Greece	None
Hungary	None
Ireland	None
Italy	<p><b>ND(L) from Greece</b> The ND(L) flow from Greece in to Italy has been reduced to 0.01bn (from an original 0.07bn) to reflect the trend in tourism figures and border closures using data from Euromonitor</p> <p><b>ND(L) from Spain</b> The ND(L) flow from Spain in to Italy has been reduced to 0.02bn (from an original 0.06bn) to reflect the trend in tourism figures and border closures using data from Euromonitor</p> <p><b>ND(L) from Duty Free</b> The Duty Free ND(L) is declining as per the travel sources used across the 30 countries of study. However, travel statistics from the Bank of Italy indicate a higher decline in travel movement. The ND(L) flow has been adjusted to reflect these figures, reducing Duty Free ND(L) from 0.16bn to 0.13bn</p>
Latvia	None
Lithuania	None

# Non-domestic legal adjustments

## 2020 non-domestic legal adjustments

Country	Adjustment
Luxembourg	None
Malta	None
Netherlands	None
Norway	<p><b>ND(L) from Sweden</b> Assumed to be predominately legal due to the high number of border crossings for shopping. Cigarettes are a popular border shopping purchase as prices in Sweden are almost half that of Norway</p> <p><b>ND(L) from World Wide Duty Free</b> 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>
Poland	None
Portugal	None
Romania	None
Slovakia	None
Slovenia	None
Spain	<p><b>ND(L) from Andorra</b> ND(L) was increased to 0.13bn (from an original 0.04bn). This is to reflect additional border crossings (sourced from 2019 Nielsen study 'Volume assessment (among visitors) Andorra 2019' and 2020 travel data from Euromonitor) over and above those recorded by the WTO, using our standard ND(L) calculation methodology. The Andorra flow is considered predominately legal given the large number of tourist and cross border workers and shoppers</p> <p><b>ND(L) from Canary Islands</b> ND(L) has been increased to 0.02bn (from an original 0.0bn) to reflect 2020 tourist border crossings (sourced from government data, and not recorded in WTO travel data), and this flow is considered predominately legal as it is supported by tourism numbers</p> <p><b>ND(L) from Gibraltar</b> ND(L) has been adjusted to 0.53bn. This is to reflect government data on total border crossings in 2020 of 5.3m (as these do not get captured in WTO traveller data). These are then split between tourists and workers (sourced from HM Government of Gibraltar: Frontier workers by nationality, 2020 (Employment department) and Land frontier visitor arrivals, 2020 (Tourism department)). The relevant smoking prevalence for workers and tourists, adult population and purchase assumptions are then used to calculate total ND(L)</p>
Sweden	None
Switzerland	<p><b>ND(L) from Germany and France</b> Assumed to be predominately legal given its proximity and large number of tourists and cross border workers</p> <p><b>ND(L) from World Wide Duty Free</b> 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>

# Non-domestic legal adjustments

## 2020 non-domestic legal adjustments

Country	Adjustment
UK	<p><b>ND(L) from Poland</b></p> <p>The smoking prevalence of Polish visitors to the UK was increased from 23.2% to 24.3% 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 2019 and extrapolated for 2020)</p> <p>The smoking prevalence of UK visitors to Poland was also updated to 20.7% (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 2019 and extrapolated for 2020). 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 0.11bn to 0.23bn</p> <p><b>ND(L) from Romania</b></p> <p>Packs brought to the UK by Romanian visitors were increased from 2 to 40 (based on previous consumer research provided by PMI pre 2016). 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 0.01bn to 0.06bn</p> <p><b>ND(L) from Duty Free</b></p> <p>Duty Free ND(L) was increased by 0.1bn 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>

# Non-domestic legal analysis

## Primary information sources and tools – 2020 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								0.29bn
	Inbound								
Hungary	Outbound								0.14bn
	Inbound								
Slovenia	Outbound								0.10bn
	Inbound								
Slovakia	Outbound								0.08bn
	Inbound								
Others									0.24bn
<b>Total</b>									<b>0.86bn</b>

Belgium									
Country		# of border crossings	Population 18+	Smoking prevalence	Smoker trips	Packs per trip	# of cigarettes	ND(L) volume	Total ND(L)
Luxembourg	Outbound								0.26bn
	Inbound								
France	Outbound								0.07bn
	Inbound								
Netherlands	Outbound								0.06bn
	Inbound								
Germany	Outbound								0.03bn
	Inbound								
Others									0.13bn
<b>Total</b>									<b>0.55bn</b>

Bulgaria									
Country		# of border crossings	Population 18+	Smoking prevalence	Smoker trips	Packs per trip	# of cigarettes	ND(L) volume	Total ND(L)
Turkey	Outbound								0.01bn
	Inbound								
Romania	Outbound								0.01bn
	Inbound								
Serbia	Outbound	0.03m	83%	35%	0.01m	10	200	0.00bn	0.01bn
	Inbound	0.30m	83%	36%	0.09m	2	40	0.00bn	
Germany	Outbound								0.00bn
	Inbound								
Others									0.07bn
<b>Total</b>									<b>0.09bn</b>

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



# Non-domestic legal analysis

## Primary information sources and tools – 2020 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)
Bosnia And Herzegovina	Outbound	0.04m	83 %	33 %	0.01m	10	200	0.00bn	0.00bn
	Inbound	0.18m	82 %	29 %	0.04m	2	40	0.00bn	
Germany	Outbound	Flows considered predominantly legal							0.00bn
	Inbound								
Serbia	Outbound	0.03m	83 %	33 %	0.01m	10	200	0.00bn	0.00bn
	Inbound	0.06m	83 %	36 %	0.02m	2	40	0.00bn	
Czech Republic	Outbound	Flows considered predominantly legal							0.00bn
	Inbound								
Others									0.02bn
<b>Total</b>									<b>0.03bn</b>

Cyprus									
Country		# of border crossings	Population 18+	Smoking prevalence	Smoker trips	Packs per trip	# of cigarettes	ND(L) volume	Total ND(L)
Greece	Outbound	Flows considered predominantly legal							0.00bn
	Inbound								
Ukraine	Outbound	0.00m	80 %	30 %	0.00m	10	200	0.00bn	0.00bn
	Inbound	0.05m	82 %	21 %	0.01m	2	40	0.00bn	
Afghanistan	Outbound	0.00m	80 %	30 %	0.00m	10	200	0.00bn	0.00bn
	Inbound	0.00m	51 %	0 %	0.00m	2	40	0.00bn	
Albania	Outbound	0.00m	80 %	30 %	0.00m	10	200	0.00bn	0.00bn
	Inbound	0.00m	79 %	24 %	0.00m	2	40	0.00bn	
Others									0.01bn
<b>Total</b>									<b>0.01bn</b>

Czech Republic									
Country		# of border crossings	Population 18+	Smoking prevalence	Smoker trips	Packs per trip	# of cigarettes	ND(L) volume	Total ND(L)
Germany	Outbound	Flows considered predominantly legal							0.03bn
	Inbound								
Slovakia	Outbound	Flows considered predominantly legal							0.03bn
	Inbound								
Poland	Outbound	Flows considered predominantly legal							0.02bn
	Inbound								
Hungary	Outbound	Flows considered predominantly legal							0.01bn
	Inbound								
Others									0.06bn
<b>Total</b>									<b>0.15bn</b>

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

# Non-domestic legal analysis

## Primary information sources and tools – 2020 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								0.03bn
	Inbound								
Germany	Outbound								0.01bn
	Inbound								
Poland	Outbound	0.11m	80%	15%	0.01m	40	800	0.01bn	0.01bn
	Inbound	0.07m	82%	23%	0.01m	2	40	0.00bn	
Turkey	Outbound								0.00bn
	Inbound								
Others									0.06bn
<b>Total</b>									<b>0.12bn</b>

Estonia									
Country		# of border crossings	Population 18+	Smoking prevalence	Smoker trips	Packs per trip	# of cigarettes	ND(L) volume	Total ND(L)
Latvia	Outbound								0.02bn
	Inbound								
Finland	Outbound								0.00bn
	Inbound								
Russia	Outbound	0.11m	81%	26%	0.02m	2	40	0.00bn	0.00bn
	Inbound	0.09m	79%	27%	0.02m	2	40	0.00bn	
Bulgaria	Outbound	0.01m	81%	26%	0.00m	40	800	0.00bn	0.00bn
	Inbound	0.00m	83%	35%	0.00m	2	40	0.00bn	
Others									0.01bn
<b>Total</b>									<b>0.04bn</b>

Finland									
Country		# of border crossings	Population 18+	Smoking prevalence	Smoker trips	Packs per trip	# of cigarettes	ND(L) volume	Total ND(L)
Estonia	Outbound	0.35m	81%	16%	0.05m	40	800	0.04bn	0.04bn
	Inbound	0.04m	81%	26%	0.01m	2	40	0.00bn	
Latvia	Outbound	0.10m	81%	16%	0.01m	40	800	0.01bn	0.01bn
	Inbound	0.01m	81%	32%	0.00m	2	40	0.00bn	
Sweden	Outbound	0.09m	81%	16%	0.01m	40	800	0.01bn	0.01bn
	Inbound	0.11m	79%	12%	0.01m	2	40	0.00bn	
Russia	Outbound	0.19m	81%	16%	0.02m	10	200	0.00bn	0.01bn
	Inbound	0.12m	79%	27%	0.03m	2	40	0.00bn	
Others									0.05bn
<b>Total</b>									<b>0.11bn</b>

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

# Non-domestic legal analysis

## Primary information sources and tools – 2020 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								1.58bn
	Inbound								
Belgium	Outbound								0.45bn
	Inbound								
Italy	Outbound								0.31bn
	Inbound								
Germany	Outbound								0.19bn
	Inbound								
Others									1.17bn
<b>Total</b>									<b>3.69bn</b>

Germany									
Country		# of border crossings	Population 18+	Smoking prevalence	Smoker trips	Packs per trip	# of cigarettes	ND(L) volume	Total ND(L)
Poland	Outbound								3.76bn
	Inbound								
Czech Republic	Outbound								3.30bn
	Inbound								
Luxembourg	Outbound								0.42bn
	Inbound								
Austria	Outbound								0.26bn
	Inbound								
Others									1.49bn
<b>Total</b>									<b>9.23bn</b>

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								0.01bn
	Inbound								
Albania	Outbound								0.01bn
	Inbound								
Germany	Outbound								0.01bn
	Inbound								
Others									0.06bn
<b>Total</b>									<b>0.12bn</b>

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

# Non-domestic legal analysis

## Primary information sources and tools – 2020 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	0.34m	82%	27%	0.08m	10	200	0.02bn	0.02bn
	Inbound	0.96m	82%	21%	0.17m	2	40	0.01bn	
Austria	Outbound								0.01bn
	Inbound								
Romania	Outbound								0.01bn
	Inbound								
Germany	Outbound								0.01bn
	Inbound								
Others									0.06bn
<b>Total</b>									<b>0.11bn</b>

Ireland									
Country		# of border crossings	Population 18+	Smoking prevalence	Smoker trips	Packs per trip	# of cigarettes	ND(L) volume	Total ND(L)
UK	Outbound								0.02bn
	Inbound								
Spain	Outbound								0.02bn
	Inbound								
Italy	Outbound								0.01bn
	Inbound								
Poland	Outbound	0.10m	76%	20%	0.02m	40	800	0.01bn	0.01bn
	Inbound	0.10m	82%	23%	0.02m	2	40	0.00bn	
Others									0.07bn
<b>Total</b>									<b>0.15bn</b>

Italy									
Country		# of border crossings	Population 18+	Smoking prevalence	Smoker trips	Packs per trip	# of cigarettes	ND(L) volume	Total ND(L)
Slovenia	Outbound	0.16m	84%	22%	0.03m	40	800	0.02bn	0.04bn
	Inbound	2.21m	82%	21%	0.37m	2	40	0.01bn	
Spain	Outbound								0.02bn
	Inbound								
Romania	Outbound	0.08m	84%	22%	0.02m	40	800	0.01bn	0.02bn
	Inbound	0.70m	81%	23%	0.13m	2	40	0.01bn	
Poland	Outbound								0.02bn
	Inbound								
Others									0.27bn
<b>Total</b>									<b>0.37bn</b>

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

# Non-domestic legal analysis

## Primary information sources and tools – 2020 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)
Lithuania	Outbound								0.00bn
	Inbound								
Russia	Outbound	0.06m	81%	32%	0.02m	2	40	0.00bn	0.00bn
	Inbound	0.32m	79%	27%	0.07m	2	40	0.00bn	
Estonia	Outbound								0.00bn
	Inbound								
Belarus	Outbound	0.12m	81%	32%	0.03m	2	40	0.00bn	0.00bn
	Inbound	0.13m	80%	24%	0.03m	2	40	0.00bn	
Other									0.02bn
<b>Total</b>									<b>0.03bn</b>

Lithuania									
Country		# of border crossings	Population 18+	Smoking prevalence	Smoker trips	Packs per trip	# of cigarettes	ND(L) volume	Total ND(L)
Poland	Outbound								0.01bn
	Inbound								
Belarus	Outbound	0.58m	82%	24%	0.12m	2	40	0.00bn	0.01bn
	Inbound	0.08m	80%	24%	0.01m	2	40	0.00bn	
Latvia	Outbound								0.00bn
	Inbound								
Germany	Outbound								0.00bn
	Inbound								
Other									0.02bn
<b>Total</b>									<b>0.04bn</b>

Luxembourg									
Country		# of border crossings	Population 18+	Smoking prevalence	Smoker trips	Packs per trip	# of cigarettes	ND(L) volume	Total ND(L)
Belgium	Outbound								0.03bn
	Inbound								
Germany	Outbound								0.01bn
	Inbound								
France	Outbound								0.01bn
	Inbound								
Austria	Outbound								0.00bn
	Inbound								
Others									0.01bn
<b>Total</b>									<b>0.05bn</b>

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

# Non-domestic legal analysis

## Primary information sources and tools – 2020 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									
Germany	Outbound	0.02m	83%	22%	0.00m	40	800	0.00bn	0.00bn
	Inbound	0.12m	84%	26%	0.03m	2	40	0.00bn	
Poland	Outbound	0.00m	83%	22%	0.00m	40	800	0.00bn	0.00bn
	Inbound	0.07m	82%	23%	0.01m	2	40	0.00bn	
Bulgaria	Outbound	0.00m	83%	22%	0.00m	40	800	0.00bn	0.00bn
	Inbound	0.01m	83%	35%	0.00m	2	40	0.00bn	
Other									0.00bn
<b>Total</b>									<b>0.01bn</b>

Netherlands									
Country		# of border crossings	Population 18+	Smoking prevalence	Smoker trips	Packs per trip	# of cigarettes	ND(L) volume	Total ND(L)
Germany	Outbound								0.22bn
	Inbound								
Flows considered predominantly legal									
Belgium	Outbound	1.21m	81%	19%	0.19m	40	800	0.15bn	0.16bn
	Inbound	1.28m	80%	23%	0.24m	2	40	0.01bn	
France	Outbound								0.16bn
	Inbound								
Flows considered predominantly legal									
Spain	Outbound								0.08bn
	Inbound								
Flows considered predominantly legal									
Other									0.45bn
<b>Total</b>									<b>1.06bn</b>

Poland									
Country		# of border crossings	Population 18+	Smoking prevalence	Smoker trips	Packs per trip	# of cigarettes	ND(L) volume	Total ND(L)
Germany	Outbound								0.09bn
	Inbound								
Flows considered predominantly legal									
Ukraine	Outbound	0.39m	82%	23%	0.07m	2	40	0.00bn	0.04bn
	Inbound	5.11m	82%	21%	0.89m	2	40	0.04bn	
Netherlands	Outbound								0.03bn
	Inbound								
Flows considered predominantly legal									
Estonia	Outbound								0.02bn
	Inbound								
Flows considered predominantly legal									
Other									0.19bn
<b>Total</b>									<b>0.37bn</b>

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

# Non-domestic legal analysis

## Primary information sources and tools – 2020 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								0.01bn
	Inbound								
Belgium	Outbound								0.00bn
	Inbound								
Luxembourg	Outbound	0.01m	83%	24%	0.00m	40	800	0.00bn	0.00bn
	Inbound	0.03m	81%	20%	0.00m	2	40	0.00bn	
Angola	Outbound	0.04m	83%	24%	0.01m	10	200	0.00bn	0.00bn
	Inbound	0.00m	47%	0%	0.00m	2	40	0.00bn	
Others									0.02bn
<b>Total</b>									<b>0.04bn</b>

Romania									
Country		# of border crossings	Population 18+	Smoking prevalence	Smoker trips	Packs per trip	# of cigarettes	ND(L) volume	Total ND(L)
Bulgaria	Outbound								0.02bn
	Inbound								
Greece	Outbound								0.02bn
	Inbound								
Ukraine	Outbound	0.27m	81%	23%	0.05m	10	200	0.01bn	0.01bn
	Inbound	0.34m	82%	21%	0.06m	2	40	0.00bn	
Germany	Outbound								0.00bn
	Inbound								
Others									0.05bn
<b>Total</b>									<b>0.10bn</b>

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								
Hungary	Outbound								0.01bn
	Inbound								
Ukraine	Outbound	0.12m	81%	27%	0.03m	10	200	0.01bn	0.01bn
	Inbound	0.32m	82%	21%	0.06m	2	40	0.00bn	
Poland	Outbound								0.01bn
	Inbound								
Others									0.03bn
<b>Total</b>									<b>0.10bn</b>

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

# Non-domestic legal analysis

## Primary information sources and tools – 2020 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								0.02bn
	Inbound								
Romania	Outbound								0.01bn
	Inbound								
Hungary	Outbound								0.01bn
	Inbound								
Italy	Outbound								0.01bn
	Inbound								
Others									0.02bn
<b>Total</b>									<b>0.06bn</b>

Spain									
Country		# of border crossings	Population 18+	Smoking prevalence	Smoker trips	Packs per trip	# of cigarettes	ND(L) volume	Total ND(L)
Gibraltar	Outbound								0.53bn
	Inbound								
Andorra	Outbound								0.13bn
	Inbound								
Canary Islands	Outbound								0.02bn
	Inbound								
Italy	Outbound								0.01bn
	Inbound								
Others									0.20bn
<b>Total</b>									<b>0.89bn</b>

Sweden									
Country		# of border crossings	Population 18+	Smoking prevalence	Smoker trips	Packs per trip	# of cigarettes	ND(L) volume	Total ND(L)
Poland	Outbound	0.15m	79%	12%	0.01m	40	800	0.01bn	0.01bn
	Inbound	0.04m	82%	23%	0.01m	2	40	0.00bn	
Denmark	Outbound								0.01bn
	Inbound								
Germany	Outbound								0.01bn
	Inbound								
Latvia	Outbound	0.09m	79%	12%	0.01m	40	800	0.01bn	0.01bn
	Inbound	0.01m	81%	32%	0.00m	2	40	0.00bn	
Others									0.07bn
<b>Total</b>									<b>0.10bn</b>

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





# Non-domestic legal analysis

## Primary information sources and tools – 2020 non-domestic legal major flow calculations

UK <sup>(a)</sup>									
Country		# of border crossings	Population 18+	Smoking prevalence	Smoker trips	Packs per trip	# of cigarettes	ND(L) volume	Total ND(L)
Spain	Outbound								0.31bn
	Inbound								
Flows considered predominantly legal									
Poland	Outbound	1.05m	79%	21%	0.17m	40	800	0.14bn	0.23bn
	Inbound	0.66m	82%	25%	0.13m	37	740	0.10bn	
Portugal	Outbound								0.07bn
	Inbound								
Flows considered predominantly legal									
Romania	Outbound	0.04m	79%	16%	0.01m	40	800	0.00bn	0.06bn
	Inbound	0.37m	81%	23%	0.07m	40	800	0.05bn	
Others									0.73bn
<b>Total</b>									<b>1.40bn</b>

Norway									
Country		# of border crossings	Population 18+	Smoking prevalence	Smoker trips	Packs per trip	# of cigarettes	ND(L) volume	Total ND(L)
Sweden	Outbound								0.02bn
	Inbound								
Flows considered predominantly legal									
Spain	Outbound	0.51m	79%	12%	0.05m	10	200	0.01bn	0.01bn
	Inbound	0.05m	82%	25%	0.01m	2	40	0.00bn	
Germany	Outbound	0.19m	79%	12%	0.02m	10	200	0.00bn	0.01bn
	Inbound	0.32m	84%	26%	0.07m	2	40	0.00bn	
Denmark	Outbound								0.00bn
	Inbound								
Flows considered predominantly legal									
Others									0.18bn
<b>Total</b>									<b>0.21bn</b>

Switzerland									
Country		# of border crossings	Population 18+	Smoking prevalence	Smoker trips	Packs per trip	# of cigarettes	ND(L) volume	Total ND(L)
Germany	Outbound								0.15bn
	Inbound								
Figure based on tourism statistics and border region consumption analysis									
France	Outbound								0.06bn
	Inbound								
Flows considered predominantly legal									
Austria	Outbound	0.88m	82%	21%	0.15m	10	200	0.03bn	0.03bn
	Inbound	0.11m	83%	26%	0.02m	2	40	0.00bn	
Italy	Outbound								0.03bn
	Inbound								
Flows considered predominantly legal									
Others									0.20bn
<b>Total</b>									<b>0.47bn</b>

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

# 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 estimate which brands made up Illicit Whites brand flows:

- Illicit volumes were compared to LDS on a country by country basis to estimate 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 estimated 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	-

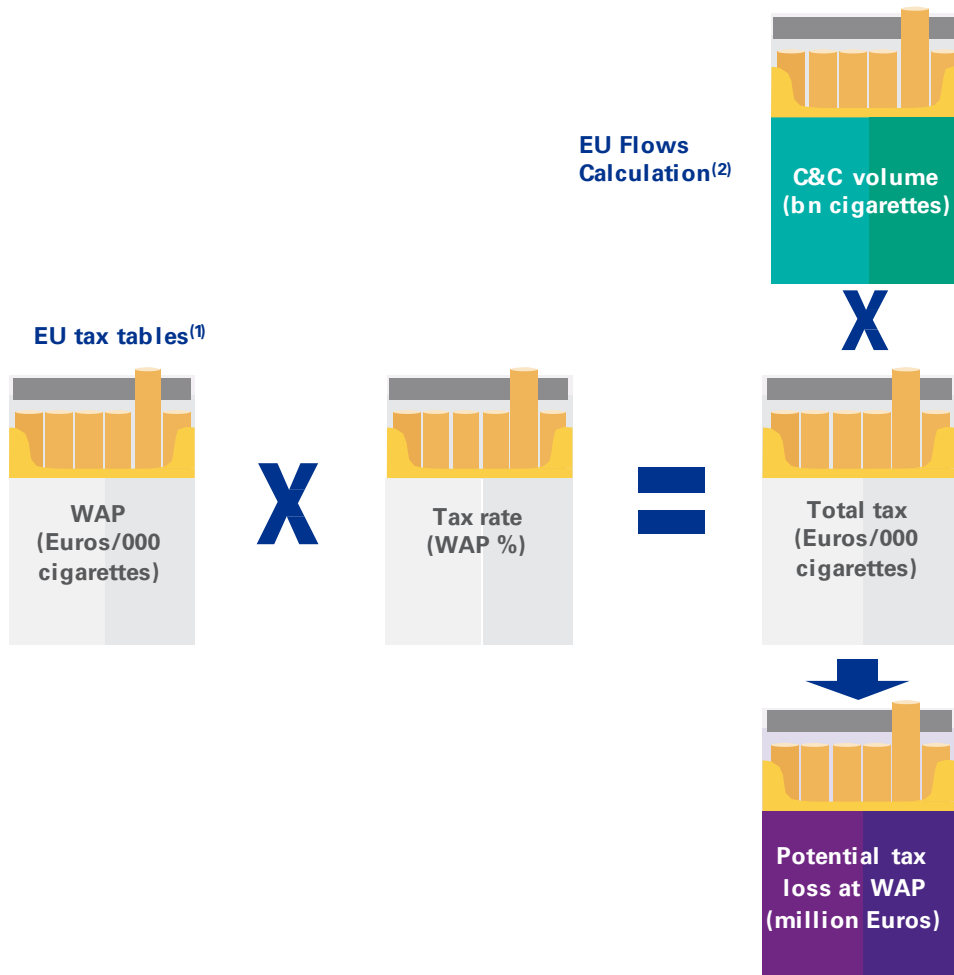
Classified as an Illicit White in country 2 where there is no evidence of legal distribution

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

# 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 estimate the Weighted Average Price<sup>(a)</sup> for cigarettes in July 2020
  - 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 27 EU countries based on WAP were estimated to be €8.5bn in 2020. This was an increase versus prior year (2019: €7.3bn)<sup>(1)(2)</sup>
- KPMG also estimated tax losses for Norway, Switzerland and the UK using the tax rates in these countries and WAP available through public sources<sup>(1)(3)(4)(5)</sup>
- 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 July 2020 (2) KPMG EU Flows Calculation and analysis of data sources provided by manufacturers (3) Tax rate and WAP, GFIS systems as on April 2021 (4) Norway Weighted Average Price, Nielsen Off-take data (5) Tax rate, The Norwegian Tax Administration, 2020



# Appendices



# Limitations of Results

The below noted limitations of results apply across 2016 to 2020

Limitation	Detail	Impact	Adjustment
<b>Geographic coverage</b>	<ul style="list-style-type: none"> <li>We have limited our geographic coverage in some markets where the inclusion of additional territories would impact confidence levels in the ND(L) research</li> <li>In some instances (e.g. Greek islands), LDS data is also insufficient for the purposes of this study</li> </ul>	<ul style="list-style-type: none"> <li>Spanish results only cover mainland Spain and do not include the Canary Islands, Balearic Islands or Ceuta &amp; Melilla</li> <li>French results cover only mainland France and do not include Corsica. As a result, LDS from Corsica are not included in France consumption figures</li> <li>Portuguese results only cover mainland Portugal and do not include Madeira or the Azores</li> <li>Greek results only cover mainland Greece and do not include the Greek islands</li> <li>UK results only cover Great Britain and Northern Ireland and do not include the Channel Islands or Isle of Man</li> </ul>	Not adjusted for
<b>Non-major manufacturer counterfeit</b>	<ul style="list-style-type: none"> <li>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<sup>(a)</sup></li> </ul>	<ul style="list-style-type: none"> <li>In some instances, the volume of legal domestic consumption may be overstated where domestic counterfeit variants exist, leading to corresponding understatements of C&amp;C volumes for some brands (although the impact is likely to be minimal)</li> <li>We cannot distinguish non-major manufacturer brand counterfeit (non-domestic variants) and contraband product, although this will not impact the overall volume of C&amp;C</li> <li>Illicit Whites volumes may include counterfeit</li> </ul>	Not adjusted for
<b>OTP</b>	<ul style="list-style-type: none"> <li>Empty pack surveys collect cigarette packs only</li> <li>Non-domestic consumption for OTP cannot be measured via empty pack survey results</li> </ul>	<ul style="list-style-type: none"> <li>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</li> </ul>	Not adjusted for
<b>Non-EU outflows</b>	<ul style="list-style-type: none"> <li>In order to calculate consumption, we have assumed no outflows of LDS outside the 30 countries of study</li> </ul>	<ul style="list-style-type: none"> <li>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</li> <li>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</li> </ul>	Not adjusted for except Luxembourg

Note: (a) Phillip Morris International counterfeit data only is included for Germany in 2018-2020

# Limitations of Results

Source	Limitation
<b>Empty pack survey</b>	<p>Whilst the empty pack survey for every country is designed by the third party market research agencies to be representative of the overall population, in some countries, owing to the geographical circumstances or demographics it may not be possible to ensure that the sample is fully representative. This may be because:</p> <ul style="list-style-type: none"> <li>— The sample is more heavily weighted towards populous, urban areas and therefore may not be fully representative of consumption habits in rural regions</li> <li>— Homes and workplaces or public spaces are not covered</li> </ul> <p>Results from Germany are based on a monthly analysis of approximately 10,000 packs collected at recycling centres as well as via empty pack surveys. Therefore, they are not directly comparable with the empty pack survey results from other countries due to the difference in the methodology adopted by Ipsos. However, both methods produce similar results (see page 192 for details)<sup>(a)</sup></p> <p>Although empty pack survey dates are selected by the third party market research agencies to seek 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"> <li>— In some instances the timing of empty pack surveys has changed between years. To seek to ensure comparability of results, we analyse monthly LDS figures, consumption trends and visitor data and make adjustments where appropriate</li> <li>— 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</li> </ul> <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>We analyse empty pack survey results to identify any outliers that may impact results, such as geographic concentrations of a specific brand or market variant. We also compare brand specific data to known sales in the source market to identify whether results are credible</p> <ul style="list-style-type: none"> <li>— Where data suggests a sampling or data capture error may have occurred at a specific location, we adjust the results in our analysis accordingly</li> </ul> <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"> <li>— 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 for the third party market research agencies, participating manufacturers or us to determine this distinction</li> <li>— The study also does not take account of various duty free loopholes that exist for some travel within the EU<sup>(b)</sup></li> </ul>

Notes: (a) 255,456 packs or 120,000 weighted packs were collected as part of the YBS in Germany. Only a summarised version of the file with 33,269 data lines was provided to KPMG  
 (b) With the exception of Aaland island off the coast of Finland

# Limitations of Results

Source	Limitation
<b>LDS</b>	<ul style="list-style-type: none"> <li>— In some cases tax stamp data on packs released for sale 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 PMI management to be representative of smoker consumption during the calendar year, or official government data sources</li> <li>— Slight timing variances may arise between the date the product was shipped and actual consumption but, following discussions with local PMI 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</li> </ul>
<b>ND(L)</b>	<ul style="list-style-type: none"> <li>— 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</li> <li>— We have estimated the volume of cigarettes purchased by travellers by assuming that smokers purchase the Duty Free limit, or the indicative legal limit for intra-EU travel</li> <li>— This may over-weight ND(L) volume as a proportion of the total non-domestic flow</li> <li>— In some markets consumer research help us to overcome some of these limitations, such as the number of packs purchased per trip</li> <li>— 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)</li> <li>— In order to estimate the ND(L) brand split, we used brand shares from the empty pack surveys. Refer to page 193 for details</li> </ul>

# COVID-19 impact on data sources and 2020 results (1)

The restrictions placed on travel and the lockdowns imposed across Europe as a result of COVID-19 led to a number of challenges in terms of estimating illicit tobacco consumption whilst trying to ensure comparability of results with 2019. The methodology has been tested extensively and refined over a number of years to seek to ensure that it delivers robust and justifiable results. This was further tested in 2020 to assess the impact of COVID-19

<b>Approach and Analysis</b>	<p>In order to consider the potential quantum of the COVID-19 impact, the following datasets were analysed simultaneously to consider the impact on 2020 results</p> <ul style="list-style-type: none"> <li>— Yearly and monthly sales breakdown over 2016-2020 by country</li> <li>— Smoking prevalence and average daily consumption over 2016-20 by country</li> <li>— Collection periods of the empty pack surveys over 2016-2020 by country</li> <li>— Dates for border closures, travel bans and domestic lockdowns in 2020 for each country of study relative to the dates of the empty pack survey collections</li> <li>— Travel data from the WTO as well as new sources such as the Euromonitor, European Travel Commission and national government statistics</li> </ul> <p>These datasets were used to analyse:</p> <ul style="list-style-type: none"> <li>— Changes in seasonality and how much of it was likely to be driven by COVID-19 versus other factors such as price increase, tax increase, etc.</li> <li>— Changes in sampling periods in 2020 (Q2 sample data was available for 26 countries in 2019 and 5 countries in 2020) and whether they coincided with the confinement periods or lockdown-free periods</li> <li>— Significant changes in the key inflows or outflows for countries where the sampling pattern changed</li> </ul>
<b>Principles for adjustments</b>	<p>COVID-19 produced a number of challenges to our analysis. To address these we followed a number of principles:</p> <ul style="list-style-type: none"> <li>— No adjustment is made unless there is clear evidence to do so</li> <li>— Data was not adjusted due to COVID-19 where the timings of empty pack survey collections did not change in 2020 or where all four quarterly collections were conducted, as they indicated a consistent and holistic view of the year when compared to the historical results</li> <li>— The output from the KPMG EU Flows Calculation, was used to identify unusually high inflows or outflows between markets (for instance, inflows from Greece to the UK), which enabled identification of flows which might have been impacted by COVID-19, or by a change in the timing of the empty pack survey</li> </ul>



# COVID-19 impact on data sources and 2020 results (2)

## Outcome

Adjustments were made where survey results appeared to be impacted by COVID-19

### UK

- In the UK, a Q2 empty pack survey was available for 2018 and 2019. In 2020, the survey was conducted in Q3 (between 10<sup>th</sup> Sep and 26<sup>th</sup> Oct). The empty pack survey results suggested a large increase of inflows from Greece, Bulgaria, Latvia and Romania which was not in line with the significant decline in tourist flows between 2019-20. Additionally, the consumption results in each of these four markets were impacted by this unusual outflow to the UK
- This appears to be driven by the timing of the Q3 UK pack collection period coinciding with the period when lockdown restrictions were lifted, and international travel permitted. This would lead to overstated non-domestic volumes as Q3 is not representative of the majority of the year when travel restrictions were in place
- Therefore, non-domestic inflows from Greece, Bulgaria, Latvia and Romania were adjusted to be in line with the traveller trend (from Euromonitor and Bank of Greece) noted between 2019 and 2020. Refer to page 190 for the impact on results

### Switzerland

- In Switzerland, a Q2 empty pack survey was available for 2017-19. In 2020, the survey was conducted in Q3 (between 26<sup>th</sup> Aug and 15<sup>th</sup> Sep). The empty pack survey results suggested a large increase of inflows from Italy (an increase of 226% on 2019 levels) and Portugal (an increase of 203% on 2019 levels) which was not in line with the significant decline in tourist flows over 2019-20. Additionally, the consumption results in each of these markets were impacted by the unusual outflow to Switzerland
- This appears to be driven by the Q3 Switzerland pack collection period coinciding with the period when lockdown restrictions were lifted within the EU and international travel permitted, which would lead to overstated non-domestic volumes as Q3 is not representative of the majority of the year when travel restrictions were in place
- Therefore, the non-domestic inflows from Italy and Portugal were adjusted to be in line with the traveller volume change between 2019 and 2020, with the assumption that travellers are the main source of inflows from these countries. Refer to page 190 for the impact on results

### Norway

- In Norway, a Q2 empty pack survey was available for 2017 and 2019. Q2 and Q4 empty pack surveys were available in 2018. In 2020, the survey was conducted in Q3 (between 1<sup>st</sup> Oct and 16<sup>th</sup> Oct). The empty pack survey results suggested a 16% decline in inflows from Sweden, which was much lower the decline in traveller volumes suggested by government statistics between 2019 and 2020
- This appears to be driven by the timing of the Q3 Norway pack collection period coinciding with a period of increased travel to and from Sweden. This would lead to overstated non-domestic volumes as Q3 is not representative of the majority of the year when stricter travel restrictions were in place
- Therefore, the non-domestic inflows from Sweden were adjusted to be in line with the traveller volume change between 2019 and 2020 (from Norway Statistics). Refer to page 189 for the impact on results

# COVID-19 impact on data sources and 2020 results (3)

## Outcome

Adjustments were made where survey results appeared to be impacted by COVID-19

### Italy

- Non-domestic legal flows from Spain and Greece were adjusted to reflect the trend in tourism figures and border closures using available data from Euromonitor and validated by Bank of Italy data. Refer to page 189 for the impact on results

### Austria

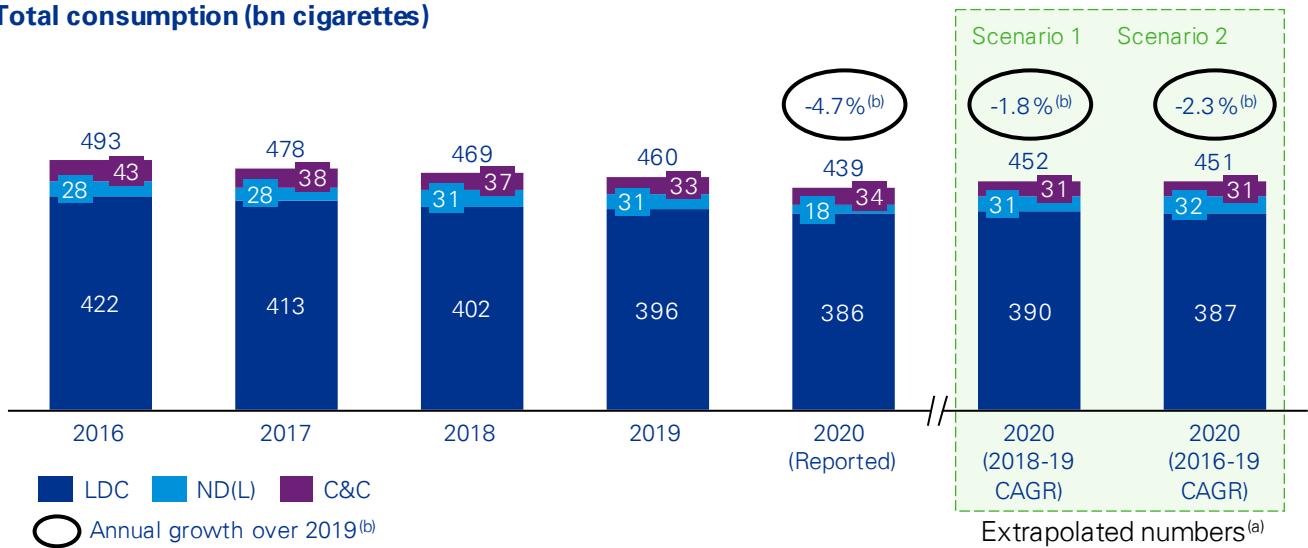
- The non-domestic inflows from Slovenia as per the empty pack survey did not reflect the decline in border travellers and border sales data for cigarettes. Therefore, the non-domestic inflows from Slovenia was adjusted to be in line with traveller volumes and border sales decline (47% over 2019-20), with the assumption that cross-border sales are the main source of inflows in Austria from Slovenia. Refer to page 187 for the impact on results

### Duty Free

- Empty pack survey results for Duty Free were not reflective of the large declines in travel movements in all markets, potentially as a result of collections taking place outside of periods when travel bans were in place and thereby overstating Duty Free volumes for the year. Non-domestic Duty Free flows were adjusted for France, Italy and Greece to reflect tourism trends for the full year using available travel data from Euromonitor (for France), the Bank of Italy (for Italy) and the Bank of Greece (for Greece). Refer to page 189 for the impact on results

# EU27 2020 results (Reported and extrapolated) (1)

## Total consumption (bn cigarettes)

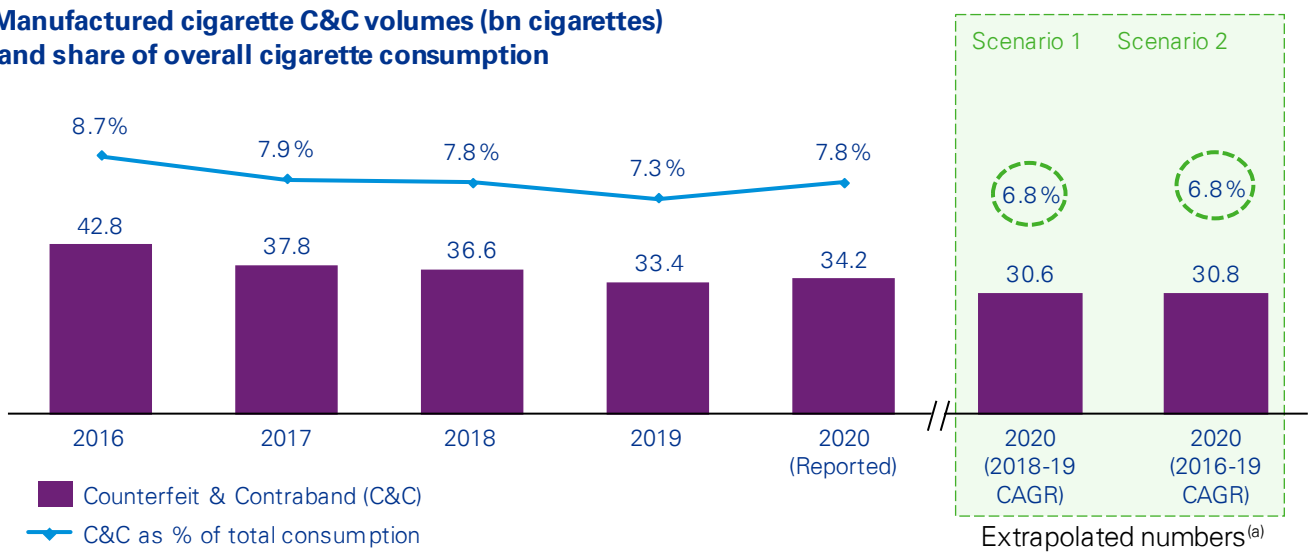


- Reported EU27 cigarette consumption declined by 4.7% in 2020. We have also illustrated two different scenarios for 2020:
  - Scenario 1: 2020 results based on an extrapolation of the 2018-19 growth rates of LDC, ND(L) and C&C, giving total consumption of 452bn cigarettes; a 1.8% decline on 2019
  - Scenario 2: 2020 results based on an extrapolation of the average 2016-19 growth rates of LDC, ND(L) and C&C, giving total consumption of 451bn cigarettes; a 2.3% decline on 2019
- The extrapolated scenarios show a markedly different consumption picture. While reported and extrapolated LDCs are relatively stable, non-domestic flows are higher under the extrapolated scenarios, with reported non-domestic flows of 52.7bn vs 61.9bn in scenario 1 and 62.6bn as per Scenario 2
- Furthermore, the non-domestic mix has shifted between the reported volumes and extrapolated volumes, mainly driven by COVID-19 related border closures and travel bans. C&C shares of non-domestic are lower in the extrapolated scenarios, with 65.0% in the reported figures vs 49.4% in Scenario 1 and 49.2% in Scenario 2
  - The majority of the difference in non-domestic is driven by ND(L), with reported ND(L) flows of 18.5bn vs an extrapolated 31.5bn in Scenario 1 and 32.2bn in Scenario 2. This highlights the impact that COVID-19 related travel and border restrictions may have had on legal cross-border purchases in the reported figures
  - C&C flows are lower in the extrapolated numbers, with reported C&C flows of 34.2bn vs extrapolated 30.6bn in scenario 1 and 30.8bn in Scenario 2. This suggests some potential offset between lower ND(L) flows and growth in C&C consumption. Had it been similar trend as in historical years, C&C would have been lower and ~50% of non-domestic consumption in Scenarios 1 and 2. Additionally, the extrapolated scenarios would not have accounted for the accelerating levels of Counterfeit found in the reported figures for 2020, especially in France

Notes: (a) Green box represents extrapolation of 2020 numbers, if there would have been no COVID-19 in 2020. The extrapolation is based on 2018-19 and 2016-19 CAGR respectively; (b) Annual growth rate compared to 2019. Annual growth rate for LDC, ND(L) and C&C has been calculated separately and extrapolated separately for each of the extrapolation scenarios shown

# EU27 2020 results (Reported and extrapolated) (2)

**Manufactured cigarette C&C volumes (bn cigarettes) and share of overall cigarette consumption**



- C&C formed 7.8% of total cigarette consumption in the reported 2020 figures
- Had the trend had been similar to historical years, C&C share would have been
  - 6.8% under Scenario 1 (based on an extrapolation of the 2018-19 growth rate of C&C)
  - 6.8% under on Scenario 2 (based on an extrapolation of the average 2016-19 growth rate of C&C)

Notes: (a) Green box represents extrapolation of 2020 numbers, if there would have been no COVID-19 in 2020. The extrapolation is based on 2018-19 and 2016-19 CAGR respectively; (b) Annual growth rate compared to 2019. Annual growth rate for LDC, ND(L) and C&C has been calculated separately and extrapolated separately for each of the extrapolation scenarios shown

# Empty pack survey results by country


## Empty pack survey results for EU27 countries, UK, Norway and Switzerland, 2017-20<sup>(a)</sup>


EU27 countries, UK, Norway and Switzerland		Number of packs collected				ND incidence in empty pack survey <sup>(b)</sup>			
Region		2017	2018	2019	2020	2017	2018	2019	2020
Austria		13,000	13,000	13,000	6,500	17%	14%	16%	11%
Belgium		5,600	5,600	5,600	2,800	9%	14%	17%	12%
Bulgaria		14,050	26,000	23,200	23,200	8%	5%	3%	2%
Croatia		3,000	3,000	3,000	3,000	3%	7%	8%	7%
Cyprus		1,000	1,000	1,000	1,000	8%	10%	16%	9%
Czech Republic		21,004	21,004	21,004	21,004	4%	9%	9%	3%
Denmark		5,500	5,500	5,000	5,000	7%	7%	10%	5%
Estonia		6,600	9,900	6,600	3,300	14%	13%	11%	9%
Finland		12,000	6,000	5,000	5,000	20%	17%	16%	12%
France		34,500	46,000	46,000	46,000	21%	27%	28%	29%
Germany		120,000	120,000	119,999	120,000	18%	18%	19%	17%
Greece		14,000	14,000	12,000	18,000	19%	25%	24%	25%
Hungary		19,905	19,902	17,240	17,240	8%	9%	10%	5%
Ireland		10,000	5,000	5,000	5,000	35%	29%	34%	22%
Italy		40,000	30,099	40,000	30,000	4%	7%	5%	4%
Latvia		9,800	14,700	9,800	4,900	23%	21%	17%	20%
Lithuania		12,800	19,200	11,600	5,800	20%	19%	20%	22%
Luxembourg		400	400	400	200	7%	8%	11%	12%
Malta		1,000	1,000	1,000	1,000	18%	11%	10%	8%
Netherlands		14,000	21,000	14,000	7,000	25%	20%	19%	16%
Poland		51,000	51,000	37,500	25,000	14%	12%	10%	9%
Portugal		3,000	3,000	3,000	3,000	4%	6%	8%	5%
Romania		15,148	7,581	15,125	12,646	16%	16%	13%	8%
Slovakia		6,400	6,400	5,000	5,000	7%	9%	6%	4%
Slovenia		3,000	3,000	3,000	3,000	12%	19%	15%	8%
Spain		30,000	30,000	30,000	15,000	10%	9%	8%	9%
Sweden		10,000	10,000	10,000	10,000	13%	13%	16%	10%
UK		50,800	12,700	12,700	12,700	29%	35%	27%	24%
Norway		5,000	10,000	5,000	5,000	44%	44%	38%	23%
Switzerland		6,600	5,600	5,600	5,600	12%	12%	14%	9%
<b>Total</b>		<b>539,107</b>	<b>521,586</b>	<b>487,368</b>	<b>422,890</b>	<b>16%</b>	<b>16%</b>	<b>18%</b>	<b>15%</b>

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; (b) ND incidence listed in this table is calculated based on the number of non-domestic packs collected in the empty pack survey. It doesn't account for differences due to country and brand adjustments made as a part of this study. Therefore, this incidence may differ from the ND incidence stated elsewhere in this report

# Empty pack survey results by country

## Austria and Belgium results by region, 2017-20<sup>(1)</sup> (2) (3)(a)

Austria 	Number of packs collected				ND incidence in empty pack survey <sup>(b)</sup>			
	Region	2017	2018	2019	2020	2017	2018	2019
Burgenland	440	440	440	220	29%	16%	14%	11%
Kärnten	850	850	850	425	23%	21%	23%	14%
Niederösterreich	2,484	2,484	2,484	1,242	16%	13%	14%	13%
Oberösterreich	2,178	2,178	2,178	1,089	18%	15%	15%	10%
Salzburg	816	816	816	408	13%	12%	16%	9%
Steiermark	1,854	1,854	1,854	927	13%	12%	15%	11%
Tirol	1,104	1,104	1,104	552	9%	9%	12%	5%
Vorarlberg	574	574	574	287	34%	13%	16%	4%
Wien	2,700	2,700	2,700	1,350	17%	18%	20%	11%
<b>Total</b>	<b>13,000</b>	<b>13,000</b>	<b>13,000</b>	<b>6,500</b>	<b>17%</b>	<b>14%</b>	<b>16%</b>	<b>11%</b>


Belgium 	Number of packs collected				ND incidence in empty pack survey <sup>(b)</sup>			
	Region	2017	2018	2019	2020	2017	2018	2019
Aalst	200	200	200	100	14%	15%	11%	9%
Anderlecht	240	240	240	120	12%	17%	15%	17%
Antwerp	1,100	1,100	1,100	550	15%	16%	15%	12%
Arlon	160	160	160	80	11%	14%	47%	74%
Brugge	240	240	240	120	8%	10%	20%	12%
Brussels	380	380	380	190	14%	12%	25%	8%
Charleroi	460	460	460	230	10%	9%	16%	17%
Genk	200	200	200	100	9%	10%	13%	9%
Gent	500	500	500	250	6%	15%	18%	12%
Hasselt	200	200	200	100	7%	21%	18%	11%
Kortrijk	200	200	200	100	5%	11%	14%	15%
Leuven	200	200	200	100	5%	15%	15%	5%
Liege	440	440	440	220	6%	12%	17%	7%
Mechelen	200	200	200	100	7%	13%	16%	7%
Mons	200	200	200	100	6%	10%	12%	11%
Namur	240	240	240	120	6%	10%	14%	16%
Sambreville	160	160	160	80	7%	9%	15%	2%
Schaerbeek	280	280	280	140	6%	22%	14%	8%
<b>Total</b>	<b>5,600</b>	<b>5,600</b>	<b>5,600</b>	<b>2,800</b>	<b>9%</b>	<b>14%</b>	<b>17%</b>	<b>12%</b>

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; (b) ND incidence listed in this table is calculated based on the number of non-domestic packs collected in the empty pack survey. It doesn't account for differences due to country and brand adjustments made as a part of this study. Therefore, this incidence may differ from the ND incidence stated elsewhere in this report

Sources: (1) Ipsos marketing empty pack surveys, 2017-2020  
 (2) MS Intelligence empty pack surveys, 2017-2019  
 (3) WSPM empty pack surveys, 2020

# Empty pack survey results by country

## Bulgaria results by region, 2017-20<sup>(1)(a)</sup>


Bulgaria 	Number of packs collected				ND incidence in empty pack survey <sup>(b)</sup>			
	Region	2017	2018	2019	2020	2017	2018	2019
Blagoevgrad	500	1,000	600	600	13%	7%	5%	2%
Burgas	666	1,332	1,332	1,332	5%	4%	3%	2%
Dobric	300	600	600	600	5%	5%	3%	5%
Gabrovo	500	600	600	600	6%	3%	1%	2%
Grad Sofia	3,528	7,056	7,056	7,056	6%	4%	3%	2%
Haskovo	1,162	2,324	1,524	1,524	16%	11%	5%	2%
Jambol	300	600	600	600	12%	4%	2%	3%
Kjustendil	500	1,000	-	-	18%	8%	-	-
Lovec	536	672	672	672	5%	10%	5%	4%
Montana	300	600	-	-	5%	5%	-	-
Pazardzik	500	600	600	600	14%	5%	4%	3%
Pernik	300	600	600	600	9%	13%	6%	2%
Plovdiv	1,414	2,828	2,828	2,828	7%	7%	5%	2%
Ruse	742	984	984	984	4%	3%	3%	3%
Sliven	300	600	600	600	10%	3%	3%	3%
Sumen	300	600	600	600	3%	3%	2%	2%
Varna	1,102	2,204	2,204	2,204	3%	4%	3%	3%
VelikoTarnovo	500	600	600	600	5%	9%	6%	0%
Vidin	300	600	600	600	12%	9%	3%	3%
Vratsa	300	600	600	600	6%	3%	4%	3%
<b>Total</b>	<b>14,050</b>	<b>26,000</b>	<b>23,200</b>	<b>23,200</b>	<b>8%</b>	<b>5%</b>	<b>3%</b>	<b>2%</b>


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; (b) ND incidence listed in this table is calculated based on the number of non-domestic packs collected in the empty pack survey. It doesn't account for differences due to country and brand adjustments made as a part of this study. Therefore, this incidence may differ from the ND incidence stated elsewhere in this report


Source: (1) Nielsen empty pack surveys, 2017-2020

# Empty pack survey results by country

## Croatia, Cyprus and Czech Republic results by region, 2017-20<sup>(1)(2)(a)</sup>

Croatia 	Number of packs collected				ND incidence in empty pack survey <sup>(b)</sup>			
	Region	2017	2018	2019	2020	2017	2018	2019
Osijek	193	193	193	193	7%	28%	18%	8%
Pula	132	132	132	132	1%	13%	6%	1%
Rijeka	294	295	295	295	3%	11%	2%	4%
Sesvete	126	124	124	124	3%	1%	10%	9%
Slavonski Brod	124	123	123	123	2%	39%	46%	19%
Split	383	384	384	384	3%	6%	5%	3%
Zadar	163	164	164	164	3%	6%	8%	2%
Zagreb	1,585	1,585	1,585	1,585	3%	2%	7%	9%
<b>Total</b>	<b>3,000</b>	<b>3,000</b>	<b>3,000</b>	<b>3,000</b>	<b>3%</b>	<b>7%</b>	<b>8%</b>	<b>7%</b>

Cyprus 	Number of packs collected				ND incidence in empty pack survey <sup>(b)</sup>			
	Region	2017	2018	2019	2020	2017	2018	2019
Larnaca	150	150	150	150	13%	14%	16%	17%
Limassol	300	300	300	300	5%	7%	10%	4%
Nicosia	400	400	400	400	8%	10%	21%	11%
Paphos	150	150	150	150	10%	14%	19%	8%
<b>Total</b>	<b>1,000</b>	<b>1,000</b>	<b>1,000</b>	<b>1,000</b>	<b>8%</b>	<b>10%</b>	<b>16%</b>	<b>9%</b>

Czech Republic 	Number of packs collected				ND incidence in empty pack survey <sup>(b)</sup>			
	Region	2017	2018	2019	2020	2017	2018	2019
Jihocesky Kraj	724	724	724	724	6%	7%	5%	2%
Jihomoravsky Kraj	2,148	2,148	2,148	2,148	4%	7%	10%	3%
Karlovarsky Kraj	300	300	300	300	6%	6%	9%	5%
Kralovehradecky Kraj	526	526	526	526	4%	7%	3%	3%
Liberecky Kraj	1,034	1,034	1,034	1,034	4%	10%	8%	4%
Moravoslezsky Kraj	3,332	3,332	3,332	3,332	4%	13%	14%	3%
Olomoucky Kraj	1,062	1,062	1,062	1,062	4%	10%	7%	3%
Pardubicky Kraj	510	510	510	510	7%	5%	3%	3%
Plzensky Kraj	948	948	948	948	5%	8%	8%	2%
Praha	7,114	7,114	7,114	7,114	5%	8%	8%	3%
Stredocesky Kraj	636	636	636	636	4%	6%	5%	1%
Ustecky Kraj	1,750	1,750	1,750	1,750	5%	8%	6%	4%
Vysocina	496	496	496	496	4%	6%	8%	1%
Zlinsky Kraj	424	424	424	424	4%	8%	5%	3%
<b>Total</b>	<b>21,004</b>	<b>21,004</b>	<b>21,004</b>	<b>21,004</b>	<b>4%</b>	<b>9%</b>	<b>9%</b>	<b>3%</b>

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; (b) ND incidence listed in this table is calculated based on the number of non-domestic packs collected in the empty pack survey. It doesn't account for differences due to country and brand adjustments made as a part of this study. Therefore, this incidence may differ from the ND incidence stated elsewhere in this report


Sources: (1) Nielsen empty pack surveys, 2017-2020


(2) Ultex empty pack surveys, 2017-2020



# Empty pack survey results by country

## Denmark and Estonia results by region, 2017-20<sup>(1)(2)(3)(a)</sup>

Denmark 	Number of packs collected				ND incidence in empty pack survey <sup>(b)</sup>			
	Region	2017	2018	2019	2020	2017	2018	2019
Capital Region	2,612	2,612	2,612	2,612	7%	8%	12%	4%
Mid Jutland	1,211	1,211	1,011	1,011	5%	6%	10%	6%
North Jutland	422	422	422	422	7%	9%	5%	4%
South Denmark	1,105	1,105	955	955	8%	5%	8%	8%
Zealand	150	150	-	-	3%	3%	-	-
<b>Total</b>	<b>5,500</b>	<b>5,500</b>	<b>5,000</b>	<b>5,000</b>	<b>7%</b>	<b>7%</b>	<b>10%</b>	<b>5%</b>


Estonia 	Number of packs collected				ND incidence in empty pack survey <sup>(b)</sup>			
	Region	2017	2018	2019	2020	2017	2018	2019
Har	3,200	4,800	3,200	1,600	10%	13%	10%	10%
Ida	1,100	1,650	1,100	550	27%	15%	14%	9%
Lääne	200	300	200	100	15%	6%	12%	1%
Lvi	200	300	200	100	19%	11%	9%	4%
Pär	300	450	300	150	14%	10%	11%	7%
Saa	200	300	200	100	11%	13%	2%	4%
Tar	800	1,200	800	400	16%	12%	12%	11%
Val	200	300	200	100	14%	26%	30%	14%
Vil	200	300	200	100	14%	21%	6%	3%
Võr	200	300	200	100	15%	18%	12%	6%
<b>Total</b>	<b>6,600</b>	<b>9,900</b>	<b>6,600</b>	<b>3,300</b>	<b>14%</b>	<b>13%</b>	<b>11%</b>	<b>9%</b>


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; (b) ND incidence listed in this table is calculated based on the number of non-domestic packs collected in the empty pack survey. It doesn't account for differences due to country and brand adjustments made as a part of this study. Therefore, this incidence may differ from the ND incidence stated elsewhere in this report

Sources: (1) MS Intelligence Empty pack surveys, 2017-2019  
 (2) Nielsen empty pack surveys, 2017-2020  
 (3) WSPM empty pack survey, 2020

# Empty pack survey results by country

## Finland and France results by region, 2017-20<sup>(1)</sup>(2)(a)

Finland 	Number of packs collected				ND incidence in empty pack survey <sup>(b)</sup>			
	Region	2017	2018	2019	2020	2017	2018	2019
Etela-Karjala	-	500	-	-	-	26%	-	-
Keski-Suomi	634	315	315	315	19%	11%	7%	4%
Kymenlaakso	399	193	193	193	17%	16%	16%	5%
Lappi	2000	200	-	-	27%	10%	-	-
Pajat-Hame	517	271	271	271	18%	12%	11%	20%
Pirkanmaa	1040	517	517	517	18%	9%	16%	7%
Pohjois-Karjala	-	300	-	-	-	16%	-	-
Pohjois-Savo	519	267	267	267	22%	9%	6%	11%
Prohiois-Pohianmaa	913	454	454	454	16%	5%	7%	4%
Uusimaa	5121	2,558	2,558	2,558	18%	22%	20%	16%
Varsinais-Suomi	857	425	425	425	18%	12%	19%	12%
<b>Total</b>	<b>12000</b>	<b>6,000</b>	<b>5,000</b>	<b>5,000</b>	<b>20%</b>	<b>17%</b>	<b>16%</b>	<b>12%</b>

France 	Number of packs collected				ND incidence in empty pack survey <sup>(b)</sup>			
	Region	2017	2018	2019	2020	2017	2018	2019
Alsace Lorraine	3,300	4,000	4,000	4,000	23%	32%	36%	29%
Champagne Ardennes								
Aquitaine	2,100	2,456	2,456	2,456	26%	26%	26%	29%
Auvergne Limousin	1,500	1,500	1,500	1,500	18%	21%	16%	23%
Auvergne-Rhône-Alpes	3,000	4,760	4,760	4,760	22%	25%	25%	26%
Basse Haute Normandie	2,400	2,804	2,804	2,804	12%	18%	19%	27%
Bourgogne-Franche-Comté	3,000	3,200	3,200	3,200	16%	19%	22%	28%
Bretagne	3,000	3,600	3,600	3,600	14%	17%	15%	25%
Centre	1,500	2,000	2,000	2,000	16%	16%	18%	25%
Île-de-France	4,500	7,200	7,200	7,200	21%	27%	33%	29%
Languedoc-Roussillon-Midi-Pyrénées	2,400	3,200	3,200	3,200	31%	37%	37%	37%
Nord Picardie	3,000	4,396	4,396	4,396	24%	36%	34%	31%
Pays De Loire Poitou Charentes	2,400	3,284	3,284	3,284	12%	20%	17%	21%
Provence-Alpes-Côte d'Azur	2,400	3,600	3,600	3,600	28%	30%	30%	33%
<b>Total</b>	<b>34,500</b>	<b>46,000</b>	<b>46,000</b>	<b>46,000</b>	<b>21%</b>	<b>27%</b>	<b>28%</b>	<b>29%</b>


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; (b) ND incidence listed in this table is calculated based on the number of non-domestic packs collected in the empty pack survey. It doesn't account for differences due to country and brand adjustments made as a part of this study. Therefore, this incidence may differ from the ND incidence stated elsewhere in this report


Sources: (1) MS Intelligence empty pack surveys, 2017-2019

(2) WSPM empty pack surveys, 2019-2020

# Empty pack survey results by country

## Germany and Greece results by region, 2017-20<sup>(1)(2)(a)</sup>

Germany 	Number of packs collected <sup>(c)</sup>				ND incidence in empty pack survey <sup>(b)</sup>			
	2017	2018	2019	2020	2017	2018	2019	2020
Lower Saxony	19,765	19,407	20,182	20,411	10%	10%	11%	9%
North Rhine-Westphalia	26,379	25,532	25,737	24,222	10%	10%	11%	10%
Rhineland-Palatinate	15,187	15,612	15,206	16,599	9%	10%	12%	10%
Baden-Württemberg	15,066	15,968	14,508	15,248	9%	9%	12%	10%
Bavaria	17,771	19,488	19,077	19,372	22%	22%	24%	22%
Berlin	5,147	5,232	5,779	-	46%	46%	45%	-
Brandenburg	11,049	9,356	10,918	15,121	31%	29%	33%	39%
Saxony	9,636	9,404	8,592	9,026	46%	45%	40%	33%
<b>Total</b>	<b>120,000</b>	<b>120,000</b>	<b>119,999</b>	<b>120,000</b>	<b>18%</b>	<b>18%</b>	<b>19%</b>	<b>17%</b>


Greece 	Number of packs collected				ND incidence in empty pack survey <sup>(b)</sup>			
	2017	2018	2019	2020	2017	2018	2019	2020
Attica	4,600	4,600	4,600	6,900	21%	27%	27%	27%
Central Greece	400	400	400	600	20%	23%	18%	19%
Central Macedonia	3,000	3,000	2,400	3,600	23%	25%	23%	25%
Crete	1,000	1,000	1,000	1,500	12%	19%	20%	23%
East Macedonia/Thrace	800	800	-	-	17%	23%	-	-
Epirus	600	600	400	600	21%	24%	17%	22%
Ionian Islands	400	400	400	600	14%	22%	27%	27%
South Aegean	400	400	400	600	13%	20%	14%	21%
Thessaly	1,200	1,200	1,200	1,800	17%	23%	24%	28%
West Greece	1,200	1,200	1,200	1,800	18%	27%	23%	24%
West Macedonia	400	400	-	-	17%	24%	-	-
<b>Total</b>	<b>14,000</b>	<b>14,000</b>	<b>12,000</b>	<b>18,000</b>	<b>19%</b>	<b>25%</b>	<b>24%</b>	<b>25%</b>


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; (b) ND incidence listed in this table is calculated based on the number of non-domestic packs collected in the empty pack survey. It doesn't account for differences due to country and brand adjustments made as a part of this study. Therefore, this incidence may differ from the ND incidence stated elsewhere in this report; (c) This table lists the weighted pack count from yellow bag surveys for 2017-2020. This is different from the unweighted pack count listed in last year's report

Sources: (1) Ipsos Yellow Bag Surveys, 2017-2020  
 (2) Nielsen empty pack surveys, 2017-2020

# Empty pack survey results by country

## Hungary and Ireland results by region, 2017-20<sup>(1)(2)((3) a)</sup>

Hungary 	Number of packs collected				ND incidence in empty pack survey <sup>(b)</sup>			
	Region	2017	2018	2019	2020	2017	2018	2019
Bács-Kiskun	980	980	775	775	8%	8%	9%	6%
Baranya	645	645	645	645	7%	9%	9%	3%
Békés	760	760	555	555	9%	9%	8%	5%
Borsod-Abaúj-Zemplén	1,465	1,465	850	850	11%	13%	16%	11%
Budapest	6,250	6,250	6,250	6,250	8%	10%	9%	5%
Csongrád	1,310	1,309	900	900	10%	8%	10%	6%
Fejér	640	640	640	640	6%	8%	9%	5%
Győr-Moson-Sopron	934	932	934	934	7%	9%	9%	5%
Hajdú-Bihar	1,195	1,195	990	990	9%	11%	12%	8%
Heves	390	390	390	390	9%	7%	10%	5%
Jász-Nagykun-Szolnok	520	520	315	315	10%	10%	10%	6%
Komárom-Esztergom	440	440	440	440	7%	7%	10%	5%
Nógrád	165	165	165	165	9%	11%	12%	5%
Pest	1,235	1,235	1,235	1,235	7%	7%	7%	6%
Somogy	490	490	285	285	6%	5%	6%	2%
Szabolcs-Szatmár-Bereg	1,099	1,099	485	485	11%	13%	16%	10%
Tolna	145	145	145	145	8%	6%	9%	3%
Vas	335	335	335	335	6%	7%	7%	2%
Veszprém	417	417	417	417	7%	7%	6%	3%
Zala	490	490	489	489	7%	4%	8%	1%
<b>Total</b>	<b>19,905</b>	<b>19,902</b>	<b>17,240</b>	<b>17,240</b>	<b>8%</b>	<b>9%</b>	<b>10%</b>	<b>5%</b>


Ireland 	Number of packs collected				ND incidence in empty pack survey <sup>(b)</sup>			
	Region	2017	2018	2019	2020	2017	2018	2019
Connacht	800	400	400	400	34%	34%	36%	21%
Leinster	6,450	3,225	3,225	3,225	30%	30%	34%	22%
Munster	2,550	1,275	1,275	1,275	25%	25%	32%	19%
Ulster	200	100	100	100	28%	28%	26%	19%
<b>Total</b>	<b>10,000</b>	<b>5,000</b>	<b>5,000</b>	<b>5,000</b>	<b>29%</b>	<b>29%</b>	<b>34%</b>	<b>22%</b>


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; (b) ND incidence listed in this table is calculated based on the number of non-domestic packs collected in the empty pack survey. It doesn't account for differences due to country and brand adjustments made as a part of this study. Therefore, this incidence may differ from the ND incidence stated elsewhere in this report

Sources: (1) GFK Hungary empty pack surveys, 2017-2020  
 (2) MS Intelligence empty pack surveys, 2017-2019  
 (3) WSPM empty pack surveys, 2020

# Empty pack survey results by country

## Italy and Latvia results by region, 2017-20<sup>(1)</sup>(2)(3)(a)

Italy 	Number of packs collected				ND incidence in empty pack survey <sup>(b)</sup>			
	Region	2017	2018	2019	2020	2017	2018	2019
Abruzzo	400	540	720	540	2%	3%	3%	1%
Calabria	556	660	880	660	5%	1%	2%	1%
Campania	3648	2,790	3,720	2,790	21%	26%	16%	12%
Emilia Romagna	4416	2,910	3,880	2,910	1%	4%	3%	4%
Friuli Venezia Giulia	608	480	640	480	14%	14%	27%	24%
Lazio	7892	5,490	7,320	5,490	1%	8%	5%	4%
Liguria	1796	1,260	1,680	1,260	2%	4%	2%	1%
Lombardia	5284	3,360	4,480	3,360	4%	5%	5%	3%
Marche	400	549	600	450	1%	2%	3%	2%
Piemonte	3080	2,190	2,920	2,190	1%	6%	2%	1%
Puglia	1968	2,220	2,960	2,220	1%	6%	5%	3%
Sicilia	3920	3,630	4,840	3,630	9%	6%	4%	2%
Toscana	2128	1,440	1,920	1,440	1%	3%	3%	1%
Trentino Alto Adige	400	300	400	300	3%	3%	6%	6%
Umbria	896	540	720	540	1%	6%	1%	0%
Veneto	2612	1,740	2,320	1,740	1%	7%	5%	2%
<b>Total</b>	<b>40,000</b>	<b>30,099</b>	<b>40,000</b>	<b>30,000</b>	<b>4%</b>	<b>7%</b>	<b>5%</b>	<b>4%</b>


Latvia 	Number of packs collected				ND incidence in empty pack survey <sup>(b)</sup>			
	Region	2017	2018	2019	2020	2017	2018	2019
Kurzeme	1,200	1,800	1,200	600	25%	18%	11%	21%
Latgale	1,400	2,100	1,400	700	40%	36%	26%	31%
Pieriga	1,400	2,100	1,400	700	21%	22%	18%	21%
Riga	4,000	6,000	4,000	2,000	19%	20%	16%	19%
Vidzeme	800	1,200	800	400	21%	15%	7%	12%
Zemgale	1,000	1,500	1,000	500	29%	17%	15%	17%
<b>Total</b>	<b>9,800</b>	<b>14,700</b>	<b>9,800</b>	<b>4,900</b>	<b>23%</b>	<b>21%</b>	<b>17%</b>	<b>20%</b>


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; (b) ND incidence listed in this table is calculated based on the number of non-domestic packs collected in the empty pack survey. It doesn't account for differences due to country and brand adjustments made as a part of this study. Therefore, this incidence may differ from the ND incidence stated elsewhere in this report


Sources: (1) MS Intelligence empty pack surveys, 2017-2018  
 (2) Ipsos empty pack surveys, 2019-2020  
 (3) Nielsen empty pack surveys, 2017-2020

# Empty pack survey results by country

## Lithuania, Luxembourg and Malta results by region, 2017-20<sup>(1)</sup>(2)(3)(a)

Lithuania 	Number of packs collected				ND incidence in empty pack survey <sup>(b)</sup>			
	Region	2017	2018	2019	2020	2017	2018	2019
Alytus	800	1,200	600	300	24%	25%	23%	25%
Kaunas	3000	4,500	2,800	1,400	19%	21%	23%	26%
Klaipeda	1,600	2,400	1,600	800	13%	11%	17%	18%
Marijampole	600	900	400	200	24%	24%	23%	18%
Panevezys	800	1,200	600	300	23%	24%	26%	22%
Siauliai	800	1,200	800	400	28%	20%	21%	29%
Taurage	200	300	200	100	13%	15%	22%	25%
Telsiai	800	1,200	800	400	15%	13%	11%	16%
Utena	600	900	600	300	20%	13%	24%	12%
Vilnius	3600	5,400	3,200	1,600	20%	19%	19%	19%
<b>Total</b>	<b>12,800</b>	<b>19,200</b>	<b>11,600</b>	<b>5,800</b>	<b>20%</b>	<b>19%</b>	<b>20%</b>	<b>22%</b>

Luxembourg 	Number of packs collected				ND incidence in empty pack survey <sup>(b)</sup>			
	Region	2017	2018	2019	2020	2017	2018	2019
Esch-Sur-Alzette	160	160	160	80	7%	7%	13%	21%
Luxembourg	240	240	240	120	7%	9%	10%	5%
<b>Total</b>	<b>400</b>	<b>400</b>	<b>400</b>	<b>200</b>	<b>7%</b>	<b>8%</b>	<b>11%</b>	<b>12%</b>


Malta 	Number of packs collected				ND incidence in empty pack survey <sup>(b)</sup>			
	Region	2017	2018	2019	2020	2017	2018	2019
Northern	350	350	350	350	19%	10%	10%	7%
Northern Harbour	550	550	550	550	18%	10%	10%	9%
Southern Harbour	100	100	100	100	15%	18%	10%	5%
<b>Total</b>	<b>1,000</b>	<b>1,000</b>	<b>1,000</b>	<b>1,000</b>	<b>18%</b>	<b>11%</b>	<b>10%</b>	<b>8%</b>


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; (b) ND incidence listed in this table is calculated based on the number of non-domestic packs collected in the empty pack survey. It doesn't account for differences due to country and brand adjustments made as a part of this study. Therefore, this incidence may differ from the ND incidence stated elsewhere in this report

Sources: (1) Nielsen Empty pack surveys, 2017-2020  
 (2) MS Intelligence empty pack surveys, 2017-2019  
 (3) WSPM empty pack surveys, 2020

# Empty pack survey results by country

## Netherlands, Poland results by region, 2017-20 (1)(2)(a)

Netherlands 	Number of packs collected				ND incidence in empty pack survey <sup>(b)</sup>			
	Region	2017	2018	2019	2020	2017	2018	2019
Drenthe	202	303	202	101	19%	21%	16%	17%
Flevoland	504	756	504	252	25%	21%	29%	15%
Friesland	332	498	332	166	16%	27%	15%	11%
Gelderland	1,084	1,626	1,084	542	22%	18%	11%	15%
Groningen	364	546	364	182	19%	17%	6%	9%
Limburg	752	1,128	752	376	21%	22%	15%	12%
North Brabant	1,860	2,790	1,860	930	21%	32%	15%	16%
North Holland	3,090	4,635	3,090	1,545	29%	18%	24%	16%
Overijssel	992	1,488	992	496	22%	14%	20%	19%
South Holland	3,944	5,916	3,944	1,972	27%	17%	20%	16%
Utrecht	876	1,314	876	438	31%	14%	22%	20%
<b>Total</b>	<b>14,000</b>	<b>21,000</b>	<b>14,000</b>	<b>7,000</b>	<b>25%</b>	<b>20%</b>	<b>19%</b>	<b>16%</b>


Poland 	Number of packs collected				ND incidence in empty pack survey <sup>(b)</sup>			
	Region	2017	2018	2019	2020	2017	2018	2019
Dolnoslaskie	3,900	3,900	3,000	2,000	9%	9%	8%	9%
Kujawsko-Pomorskie	2,775	2,775	2,775	1,850	9%	8%	9%	8%
Lodzkie	3,375	3,375	2,475	1,650	20%	17%	13%	12%
Lubelskie	2,550	2,550	1,200	800	29%	12%	8%	6%
Lubuskie	1,350	1,350	900	600	10%	8%	6%	5%
Malopolskie	2,925	2,925	2,925	1,950	9%	3%	3%	3%
Mazowieckie	8,100	8,100	6,750	4,500	22%	15%	15%	16%
Opolskie	1,800	1,800	450	300	6%	3%	5%	2%
Podkarpackie	2,850	2,850	600	400	16%	16%	8%	16%
Podlaskie	1,425	1,425	975	650	33%	34%	27%	18%
Pomorskie	2,325	2,325	2,325	1,550	2%	7%	6%	5%
Slaskie	7,350	7,350	7,350	4,900	12%	11%	8%	8%
Swietokrzyskie	1,575	1,575	675	450	10%	4%	4%	2%
Warminko-Mazurskie	2,400	2,400	1,050	700	30%	32%	23%	13%
Wielkopolskie	4,050	4,050	2,250	1,500	0%	1%	1%	5%
Zachodniopomorskie	2,250	2,250	1,800	1,200	6%	7%	7%	9%
<b>Total</b>	<b>51,000</b>	<b>51,000</b>	<b>37,500</b>	<b>25,000</b>	<b>14%</b>	<b>12%</b>	<b>10%</b>	<b>9%</b>


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; (b) ND incidence listed in this table is calculated based on the number of non-domestic packs collected in the empty pack survey. It doesn't account for differences due to country and brand adjustments made as a part of this study. Therefore, this incidence may differ from the ND incidence stated elsewhere in this report


Sources: (1) MS Intelligence empty pack surveys, 2017-2020  
 (2) Almares Research empty pack surveys, 2017-2020

# Empty pack survey results by country

## Portugal, Romania and Slovakia results by region, 2017-20<sup>(1)(2)(3)(a)</sup>

Portugal 	Number of packs collected				ND incidence in empty pack survey <sup>(b)</sup>			
	Region	2017	2018	2019	2020	2017	2018	2019
Center	200	200	200	200	0%	0%	2%	0%
Lisboa	1,900	1,900	1,900	1,900	4%	4%	6%	3%
North	900	900	900	900	5%	10%	13%	9%
<b>Total</b>	<b>3,000</b>	<b>3,000</b>	<b>3,000</b>	<b>3,000</b>	<b>4%</b>	<b>6%</b>	<b>8%</b>	<b>5%</b>

Romania 	Number of packs collected				ND incidence in empty pack survey <sup>(b)</sup>			
	Region	2017	2018	2019	2020	2017	2018	2019
Bucharest	1,570	804	1,592	1,398	7%	7%	5%	4%
Caras-Severin	-	-	-	296				4%
Center	1,592	756	1,427	1,214	2%	2%	1%	1%
North-East	2,824	1,441	2,683	2,349	39%	37%	31%	21%
North-West	1,937	967	1,979	1,743	16%	18%	12%	11%
Satu Mare	-	-	-	35				29%
South	1,897	867	1,754	1,642	4%	3%	4%	4%
South-East	1,959	1,074	2,267	1,659	11%	10%	10%	5%
South-West	1,784	818	1,700	1,357	24%	16%	20%	10%
West	1,585	854	1,723	953	24%	25%	19%	9%
<b>Total</b>	<b>15,148</b>	<b>7,581</b>	<b>15,125</b>	<b>12,646</b>	<b>16%</b>	<b>16%</b>	<b>13%</b>	<b>8%</b>

Slovakia 	Number of packs collected				ND incidence in empty pack survey <sup>(b)</sup>			
	Region	2017	2018	2019	2020	2017	2018	2019
Banskobystricky Kraj	550	550	450	450	7%	4%	3%	2%
Bratislavsky Kraj	1,200	1,200	1,200	1,200	3%	3%	3%	1%
Kosicky Kraj	1,300	1,300	800	800	10%	15%	11%	5%
Nitriansky Kraj	850	850	650	650	9%	10%	8%	5%
Presovsky Kraj	1,100	1,100	600	600	11%	13%	5%	5%
Trenciansky Kraj	400	400	400	400	4%	6%	4%	10%
Trnavsky Kraj	400	400	300	300	3%	3%	8%	9%
Zilinsky Kraj	600	600	600	600	5%	5%	2%	2%
<b>Total</b>	<b>6,400</b>	<b>6,400</b>	<b>5,000</b>	<b>5,000</b>	<b>7%</b>	<b>9%</b>	<b>6%</b>	<b>4%</b>


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; (b) ND incidence listed in this table is calculated based on the number of non-domestic packs collected in the empty pack survey. It doesn't account for differences due to country and brand adjustments made as a part of this study. Therefore, this incidence may differ from the ND incidence stated elsewhere in this report


Sources: (1) Ipsos empty pack surveys, 2017-2020  
 (2) Novel Study, 2017-2019  
 (3) Nielsen empty pack surveys, 2017-2020



# Empty pack survey results by country

## Slovenia and Spain results by region, 2017-20<sup>(1)</sup>(2)(3)(a)

Slovenia 	Number of packs collected				ND incidence in empty pack survey <sup>(b)</sup>			
	Region	2017	2018	2019	2020	2017	2018	2019
Celje	210	210	210	210	10%	32%	14%	9%
Koper	139	139	139	139	9%	20%	15%	5%
Kranj	208	208	208	208	7%	18%	20%	7%
Ljubljana	1,539	1,539	1,539	1,539	13%	14%	15%	8%
Maribor	531	531	531	531	13%	15%	17%	9%
Novo Mesto	130	130	130	130	21%	35%	12%	3%
Ptuj	101	101	101	101	11%	38%	10%	5%
Velenje	142	142	142	142	8%	47%	13%	7%
<b>Total</b>	<b>3,000</b>	<b>3,000</b>	<b>3,000</b>	<b>3,000</b>	<b>12%</b>	<b>19%</b>	<b>15%</b>	<b>8%</b>


Spain 	Number of packs collected				ND incidence in empty pack survey <sup>(b)</sup>			
	Region	2017	2018	2019	2020	2017	2018	2019
Andalucia	5,176	5,176	5,176	2,588	33%	31%	29%	36%
Aragon	1,170	1,170	1,170	585	3%	2%	2%	1%
Asturias	858	858	858	429	2%	1%	2%	0%
Basque Country	1,534	1,534	1,534	767	7%	3%	2%	2%
Cantabria	304	304	304	152	4%	1%	2%	2%
Castilla Y Leon	1,320	1,320	1,320	660	4%	2%	2%	0%
Castilla-La Mancha	296	296	296	148	4%	3%	2%	3%
Catalonia	5,394	5,394	5,394	2,697	5%	6%	5%	4%
Comunidad Valenciana	2,842	2,842	2,842	1,421	4%	5%	2%	2%
Extremadura	258	258	258	129	2%	7%	1%	17%
Galicia	1,130	1,130	1,130	565	3%	2%	2%	2%
La Rioja	262	262	262	131	1%	0%	2%	2%
Madrid	7,992	7,992	7,992	3,996	6%	7%	6%	4%
Murcia	1,126	1,126	1,126	563	6%	4%	4%	1%
Navarra	338	338	338	169	3%	2%	1%	1%
<b>Total</b>	<b>30,000</b>	<b>30,000</b>	<b>30,000</b>	<b>15,000</b>	<b>10%</b>	<b>9%</b>	<b>8%</b>	<b>9%</b>

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; (b) ND incidence listed in this table is calculated based on the number of non-domestic packs collected in the empty pack survey. It doesn't account for differences due to country and brand adjustments made as a part of this study. Therefore, this incidence may differ from the ND incidence stated elsewhere in this report

Sources: (1) MS Intelligence Empty pack surveys, 2017-2019  
 (2) WSPM empty pack surveys, 2019-2020  
 (3) Ipsos empty pack surveys, 2017-2020

# Empty pack survey results by country

## Sweden results by region, 2017-20<sup>(1)(2)(a)</sup>


Sweden 	Number of packs collected				ND incidence in empty pack survey <sup>(b)</sup>			
	Region	2017	2018	2019	2020	2017	2018	2019
Blekinge	150	150	150	150	20%	8%	11%	10%
Dalarna	150	150	150	150	18%	6%	11%	5%
Gastrikland	190	190	190	190	12%	9%	17%	8%
Halland	304	304	304	304	11%	7%	13%	8%
Jönköping	233	233	233	233	13%	7%	13%	4%
Kronoberg	154	154	154	154	15%	5%	22%	5%
Norrbottn	150	150	150	150	10%	3%	9%	4%
Örebro	272	272	272	272	15%	13%	7%	10%
Östergötland	500	500	500	500	12%	8%	15%	10%
Skåne	1,101	1,101	1,101	1,101	12%	15%	15%	13%
Smaland	150	150	150	150	11%	17%	23%	12%
Södermanland	316	316	316	316	16%	10%	17%	10%
Stockholm	3,284	3,284	3,284	3,284	14%	20%	16%	11%
Uppsala	355	355	355	355	10%	7%	20%	9%
Värmland	162	162	162	162	18%	10%	15%	15%
Västerbotten	359	359	359	359	12%	5%	18%	2%
Västernorrland	150	150	150	150	14%	5%	16%	8%
Västmanland	296	296	296	296	14%	14%	12%	8%
Västra Götaland	1,724	1,724	1,724	1,724	11%	6%	15%	8%
<b>Total</b>	<b>10,000</b>	<b>10,000</b>	<b>10,000</b>	<b>10,000</b>	<b>13%</b>	<b>13%</b>	<b>16%</b>	<b>10%</b>


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; (b) ND incidence listed in this table is calculated based on the number of non-domestic packs collected in the empty pack survey. It doesn't account for differences due to country and brand adjustments made as a part of this study. Therefore, this incidence may differ from the ND incidence stated elsewhere in this report

Sources: (1) MS Intelligence empty pack surveys, 2017-2018  
 (2) Global Vox Populi empty pack surveys, 2017-2020

# Empty pack survey results by country

## UK and Norway results by region, 2017-20<sup>(1)(2)(a)</sup>

UK 	Number of packs collected				ND incidence in empty pack survey <sup>(b)</sup>			
	Region	2017	2018	2019	2020	2017	2018	2019
East Midlands	4,000	1,000	1,000	1,000	28 %	42%	25 %	23 %
East of England	4,400	1,100	1,000	1,100	29 %	31%	30%	34%
London	6,000	1,500	1,500	1,500	28 %	30%	26 %	20%
North East England	2,000	500	500	500	29 %	64%	42%	40%
North West England	5,196	1,299	1,299	1,299	29 %	34%	24%	24%
Northern Ireland	2,000	500	500	500	29 %	50%	26 %	14%
Scotland	4,396	1,099	1,099	1,099	24 %	18%	19 %	22%
South East England	8,004	2,001	2,001	2,001	34 %	38%	27%	19%
South West England	3,600	900	900	900	32 %	22%	27%	17%
Wales	2,800	700	700	700	27 %	26%	27%	13%
West Midlands	4,804	1,201	1,201	1,201	28 %	37%	25 %	28%
Yorkshire and The Humber	3,600	900	900	900	28 %	56%	32%	36%
<b>Total</b>	<b>50,800</b>	<b>12,700</b>	<b>12,700</b>	<b>12,700</b>	<b>29%</b>	<b>35%</b>	<b>27%</b>	<b>24%</b>


Norway 	Number of packs collected				ND incidence in empty pack survey <sup>(b)</sup>			
	Region	2017	2018	2019	2020	2017	2018	2019
Akershus	376	752	376	376	43 %	40%	33 %	20%
Hordaland	866	1,732	866	866	43 %	43%	38 %	23%
Oslo	2,012	4,024	2,012	2,012	43 %	49%	40%	27%
Ostfold	248	496	248	248	48 %	44%	39 %	24%
Rogaland	419	838	419	419	43 %	43%	32%	17%
Sor-Trondelag	579	1,158	579	579	43 %	34%	42%	21%
Vest-Adger	227	454	227	227	46 %	43%	40%	16%
Troms	273	546	273	273	49 %	42%	36 %	16%
<b>Total</b>	<b>5,000</b>	<b>10,000</b>	<b>5,000</b>	<b>5,000</b>	<b>44%</b>	<b>44%</b>	<b>38%</b>	<b>23%</b>

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; (b) ND incidence listed in this table is calculated based on the number of non-domestic packs collected in the empty pack survey. It doesn't account for differences due to country and brand adjustments made as a part of this study. Therefore, this incidence may differ from the ND incidence stated elsewhere in this report

Sources: (1) MS Intelligence empty pack surveys, 2016-2020  
 (2) Ipsos empty pack surveys, 2019-2020

# Empty pack survey results by country

## Switzerland results by region, 2017-20<sup>(1)</sup>(2)(a)

Switzerland 	Number of packs collected				ND incidence in empty pack survey <sup>(b)</sup>			
	Region	2017	2018	2019	2020	2017	2018	2019
Basel	400	400	400	400	12%	13%	12%	9%
Bern	900	300	900	900	12%	11%	11%	7%
Biel	-	200	-	-	-	6%	-	-
Chur	-	200	-	-	-	10%	-	-
Fribourg	200	200	200	200	7%	7%	8%	5%
Geneva	700	500	700	700	12%	14%	23%	9%
Grisons	200	-	200	200	13%	-	13%	4%
Jura	200	-	-	-	9%	-	-	-
Koniz	-	200	-	-	-	10%	-	-
La Chaux De Fonds	-	200	-	-	-	10%	-	-
Lausanne	-	300	-	-	-	10%	-	-
Lugano	-	200	-	-	-	28%	-	-
Luzern	200	200	200	200	9%	9%	13%	10%
Neuchatel	400	200	400	400	7%	12%	12%	4%
Schaffhausen	200	200	200	200	9%	14%	15%	9%
Sion	-	200	-	-	-	12%	-	-
St Gallen	400	200	200	200	12%	12%	6%	13%
Thun	-	200	-	-	-	8%	-	-
Thurgau	200	-	-	-	7%	-	-	-
Ticino	400	-	200	200	31%	-	12%	36%
Uster	-	200	-	-	-	8%	-	-
Valais	200	-	200	200	7%	-	10%	13%
Vaud	300	-	300	300	6%	-	11%	7%
Vernier	-	200	-	-	-	14%	-	-
Winterthur	-	300	-	-	-	8%	-	-
Zurich	1500	1,000	1,500	1,500	14%	12%	14%	7%
<b>Total</b>	<b>6600</b>	<b>5,600</b>	<b>5,600</b>	<b>5,600</b>	<b>12%</b>	<b>12%</b>	<b>14%</b>	<b>9%</b>

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; (b) ND incidence listed in this table is calculated based on the number of non-domestic packs collected in the empty pack survey. It doesn't account for differences due to country and brand adjustments made as a part of this study. Therefore, this incidence may differ from the ND incidence stated elsewhere in this report

Sources: (1) MS Intelligence empty pack surveys, 2017-2018  
(2) WSPM empty pack surveys, 2019-2020

# 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 %) <sup>(1)</sup>		
Country	2019	2020
Austria	1.6	-6.6
Belgium	1.4	-6.4
Bulgaria	3.4	-4.2
Croatia	2.9	-8.4
Cyprus	3.2	-5.1
Czech Republic	2.6	-5.6
Denmark	2.4	-3.3
Estonia	4.3	-2.9
Finland	1.0	-2.8
France	1.3	-8.1
Germany	0.6	-4.9
Greece	1.9	-8.2
Hungary	4.9	-5.0
Ireland	5.5	3.4
Italy	0.3	-8.9
Latvia	2.2	-3.6
Lithuania	3.9	-0.8
Luxembourg	2.3	-1.3
Malta	4.4	-7.0
Netherlands	1.8	-3.8
Norway	1.2	-0.8
Poland	4.1	-2.7
Portugal	2.2	-7.6
Romania	4.1	-3.9
Slovakia	2.3	-5.2
Slovenia	2.4	-5.5
Spain	2.0	-10.8
Sweden	1.2	-2.8
Switzerland	0.9	-2.9
United Kingdom	1.4	-9.9

Unemployment rate (%) <sup>(1)</sup>		
Country	2019	2020
Austria	4.5	5.4
Belgium	5.4	5.6
Bulgaria	4.2	5.1
Croatia	6.7	7.4
Cyprus	7.1	7.6
Czech Republic	2.0	2.5
Denmark	5.1	5.6
Estonia	4.4	6.8
Finland	6.7	7.8
France	8.5	8.0
Germany	3.1	4.2
Greece	17.3	16.4
Hungary	3.4	4.1
Ireland	5.0	5.7
Italy	10.0	9.1
Latvia	6.3	8.1
Lithuania	6.3	8.5
Luxembourg	5.4	6.3
Malta	3.4	4.3
Netherlands	3.4	3.8
Norway	3.7	4.6
Poland	3.3	3.2
Portugal	6.5	7.0
Romania	3.9	5.0
Slovakia	5.8	6.7
Slovenia	4.5	4.9
Spain	14.1	15.5
Sweden	6.8	8.3
Switzerland	4.4	4.8
United Kingdom	3.8	4.5

Source: (1) Euromonitor

# 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
Alcohol, tobacco, cash and excise duties, European Union, Europe.eu, last updated on Dec 2020
Andorra customs duty free allowance, surfevasiopasdelacasa.com
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# Sources (cont.)

## Data sources

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# Scope of work

The scope of work below forms the basis of our contract with the Beneficiaries

## Methodology and Reporting

1. The purpose of the study is to consider and comment on:
  - a) the estimated size and composition of the total cigarette market (including counterfeit and contraband products), for each of the 27 EU member states, the UK, Norway and Switzerland for 2020
2. The Contractor will prepare a Report which will be provided in PDF format which covers the results of the analysis undertaken as set out below:
  - a) 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), the impact of COVID-19 on illicit cigarette sales 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.
  - b) Each country section will consist of the equivalent of four pages if printed, and will include a table detailing total manufactured cigarette consumption from 2016 to 2020, 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 in relation to trends in C&C.
  - c) 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 cigarette sales data provided by PMP SA 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 by PMP SA.
    - The Contractor will analyse the results of the Empty Pack Surveys to estimate the level of non-domestic cigarette inflows for each country, which will then be added to Legal Domestic Consumption to estimate Total Consumption.
  - d) Using publicly available data, the Contractor will analyse tourism flows, smoking incidence, cigarette purchase limits for travellers and border sales data to estimate the proportion of non-domestic inflows that could be considered to be legal, and as a direct result provide an estimate of the level of counterfeit and contraband for each of the 30 countries.
  - The steps above will be undertaken to simultaneously analyse the inflows and outflows between all of the 30 countries using Excel and Alteryx analytical tools, which have been specifically developed for this purpose by the Contractor and are consistent with those used in previous projects for the Client, using the data sources above.
  - Additional data sources may be used to refine the Contractor's analysis.
  - The Contractor will request meetings or interviews with Law Enforcement representatives in Spain, Italy, Greece, Bulgaria, Poland, France, UK, Germany, and Netherlands, to discuss the Contractor's initial findings and other relevant information regarding illicit cigarette consumption. Where Law Enforcement representatives agree to participate in such meetings or interviews the Contractor will include a high-level aggregated summary of feedback received.
  - The Contractor will set out the estimation process in detail in a methodology section in the Report. This section will also describe the approach used to consider the impact of COVID-19 on illicit cigarette consumption
  - d) The Contractor will also conduct analysis on illicit whites which will be analysed in the same way as point c) 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.
  - e) Upon finalisation of the Contractor's work, the Contractor will provide separately to the Client data tables containing the following information:
    - Summary of EU total counterfeit and contraband inflows by source and destination market;
    - 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
    - Impact of the COVID-19 adjustments



# Scope of work (cont.)

- f) Subject to the Contractor's UK and local office approvals, members from the KPMG project team will also be made available to support two external stakeholder presentations after the completion and disclosure of the Report under the terms of this Engagement Letter:
  - The presentation noted to external stakeholders above will relate to the factual findings of the Report which will have already been made public in accordance with the Additional Terms set out in this Engagement Letter. The Contractor's presentation will not include any recommendations on regulation or policy. The Contractor will present on its own and will not share a platform with any other organisation or audit clients.
- b) Estimates of non-domestic consumption used by PMPSA in each market (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 not be published. This will comprise:
  - Detailed survey results; and
  - Information regarding the methodology and sampling plan.
- c) 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 Participant teams to help corroborate findings

Additional presentations, translation costs and the costs of Contractor personnel from other KPMG network firms are outside the scope of this letter and the Contractor will agree on the costs of such services with the Client separately and in addition to the fee as per the Engagement Letter.

## Data Sources

- 3. 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.
- 4. The Contractor withholds the right to share draft results, reports or working papers with research agencies in order to obtain approval for the way in which the agencies' data is used and presented, where the Contractor is contractually obliged to do so.
- 5. Information from several independent sources will be used. These sources are set out below:
  - a) Tobacco industry research, surveys and statistics;
    - 2020 Empty Pack Survey data provided by PMPSA for the 30 countries included in the study.
    - In-market sales data provided by PMPSA and/or Tobacco Manufacturers' Associations.
    - Consumer survey data and statistics will be provided by PMPSA where available to help demonstrate trends discussed during the factual accuracy discussions and identify further areas of analysis (e.g. extent of smokers switching to non-combustible products, purchase behaviour in Spain-Andorra-France, ferry statistics etc.).



If you would like further information, please talk to your usual KPMG contact or contact:

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