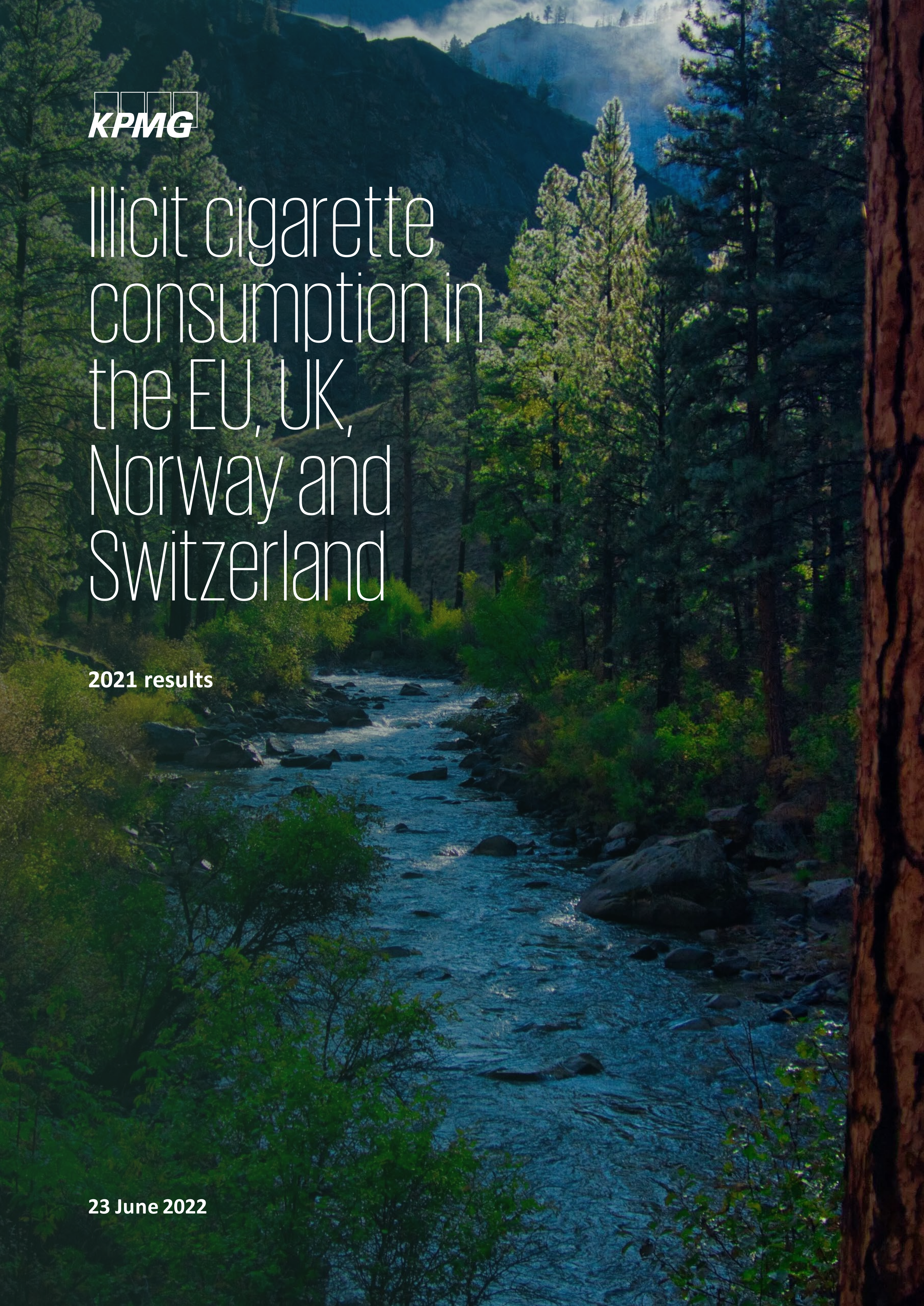


KPMG

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

2021 results

23 June 2022

Important notice

This report of key findings (the 'Report') has been prepared by KPMG LLP. The Report was commissioned by PMPSA (Philip Morris Products SA), described in this Important Notice and in this Report as the 'beneficiary', on the basis set out in a private contract agreed between the beneficiary and KPMG LLP dated 12 January 2022.

Information sources, the scope of our work, and scope and source limitations are set out in the footnotes and methodology contained within this Report. The scope of our work, information sources used, and any scope and source limitations were fixed by agreement with the beneficiary. We have satisfied ourselves, where possible, that the information presented in this Report is consistent with the information sources used, but we have not sought to establish the reliability of the information sources by reference to other evidence. We relied upon and assumed without independent verification, the accuracy and completeness of information available from public and third-party sources.

This Report has not been designed to benefit any specific organisation other than the beneficiary. In preparing this Report we have not taken into account the interests, needs, or circumstances of any specific organisation, other than the beneficiary. This Report is not suitable to be relied on by any party (other than the beneficiary) wishing to acquire rights or assert any claims against KPMG LLP for any purpose or in any context. As such, any person or entity (other than the beneficiary) who reads this Report and chooses to rely on it (or any part of it) will do so at their own risk. To the fullest extent permitted by law, KPMG LLP does not assume any responsibility and will not accept any liability in respect of this Report other than to the beneficiary.

In particular, and without limiting the general statement above, although we have prepared this Report in agreement with the beneficiary, this Report has not been prepared for the benefit of any other manufacturer of tobacco products nor for any other person or entity who might have an interest in the matters discussed in this Report, including for example those who work in or monitor the tobacco or public health sectors or those who provide goods or services to those who operate in those sectors.

Glossary

Average daily consumption	Daily average consumption by the population of the legal smoking age
BAT	British American Tobacco plc
Bn	Billion
c.	Approximately
C&C	Counterfeit and Contraband, including Illicit Whites
CAGR	Compound Annual Growth Rate
Cigarette	Any factory-made product that contains tobacco and is intended to be burned under ordinary conditions of use
Consumption	Actual total consumption of cigarettes in a market, including Legal Domestic Consumption (LDC) and illicit products as well as those legally purchased overseas
Contraband (CB)	Genuine products that have been either bought in a lower-tax country and which exceed legal border limits or acquired without taxes for export purposes to be illegally re-sold (for financial profit) in a higher priced market
Counterfeit (CF)	Cigarettes that are illegally manufactured and sold by a party other than the original trademark owner. In this Report, counterfeit volumes are reported from the 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
Country of origin	Country from which the packs collected are deemed to have originated. This is determined by either the tax stamp on the pack or in cases where the tax stamp is not shown, on the health warning and packaging characteristics
Duty Free	Cigarettes bought without payment of customs or excise duties. Consumers may buy Duty Free Cigarettes when travelling into or out of the EU (including Switzerland and Norway) by land, air or sea at legal Duty Free shops
EC	European Commission
EU / EU27	European Union

Glossary

EU Flows Calculation	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
Fine cut	Fine cut smoking tobacco intended for rolling of cigarettes
Illicit Whites (IW)	Cigarettes that are usually manufactured legally in one country/market but which the evidence suggests have been smuggled across-borders during their transit to the destination market under review where they have limited or no legal distribution and are sold without payment of tax
Illicit Whites with no country-specific labelling	Packs of Illicit White Cigarettes which have “duty free” or no identifiable labelling on the packs
IMS	In Market Sales (the primary source of legal domestic sales volumes)
Inflows	Inflows of non-domestic product into a market. Refer to the methodology section for further details
ITL	Imperial Tobacco Limited
JTI	JT International SA
LDC	Legal Domestic Consumption is defined as Legal Domestic Sales (LDS) net of outflows
LDS	Legal Domestic Sales of genuine domestic product through legitimate, domestic channels based on In Market Sales (IMS) data
m	Million
MPPC	Most Popular Price Category

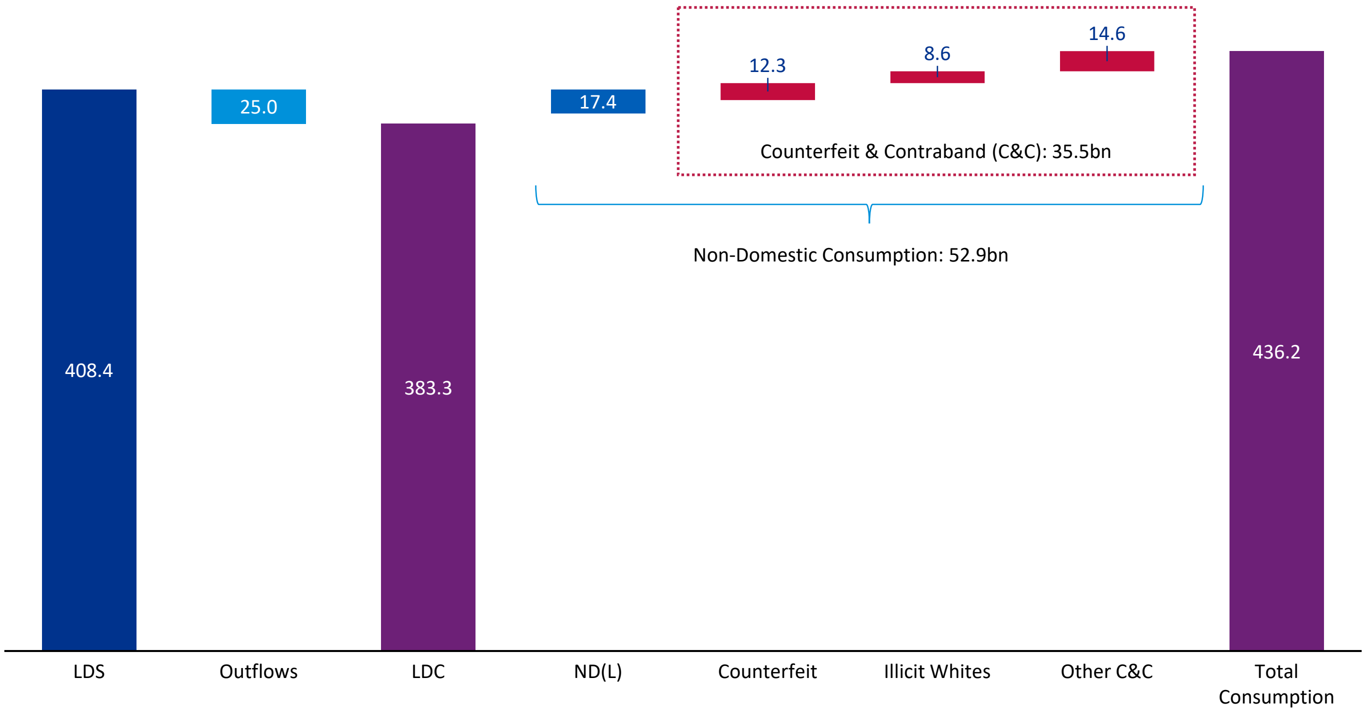
Glossary

ND	Non-Domestic product – product that originates from a different market than the one in which it is consumed
ND(L)	Non-Domestic (Legal) – product that is brought into the market legally by consumers, such as during a cross-border trip
OCG	Organised Crime Group
OLAF	Office Européen de Lutte Antifraude also known as the European Anti-Fraud Office
OTP	Other Tobacco Products (fine cut (RYO/MYO), cigarillos, portions, rolls and cigars; excluding smokeless tobacco and water-pipe tobacco)
Outflows	Outflows of product from a market. For the purposes of the EU Flows Calculation, outflows are to other markets in the study. Refer to the methodology section for further details
PMI	Philip Morris International
PMPSA	Philip Morris Products SA
ppt	Percentage point
Reporting period	The period covered by this Report (2017-2021)
RYO	Roll Your Own tobacco products
Smoking prevalence	The percentage of smokers in the total population of the legal smoking age
Tobacco taxes	The sum of all types of taxes levied on tobacco products, including VAT. There are two basic methods of tobacco taxation: Normal or specific taxes are based on a set amount of tax per unit (e.g. cigarette); these taxes are differentiated according to the type of tobacco. Ad valorem taxes are assessed as a percentage mark up on a determined value, usually the retail selling price or a wholesale price and includes any value added tax
Unspecified	Unspecified market variant refers to cigarette packs which do not bear specific market labelling or Duty Free labelling
UNWTO	United Nations World Tourism Organisation
WAP	The weighted average price for cigarettes calculated by reference to the total value of all cigarettes released for consumption, based on the retail selling price including all taxes, divided by the total quantity of cigarettes released for consumption. The WAP is provided by the European Commission Excise Duty Tables

Contents

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

Estimate of total cigarette consumption in the EU27, 2021 (bn cigarettes)[1]



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, the UK, Norway and Switzerland are all balanced, so that the overall consumption in each country can be estimated.

Definitions for each component of cigarette consumption are available in the Methodology section.

Source: (1) KPMG EU Flows Calculation 2021

About this Report

This Report is the 2022 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 2021. KPMG LLP was previously commissioned by Philip Morris Products SA to undertake this report in 2021 (resulting in a 2021 report covering 2020 data) and Project Stella in 2020 (resulting in a 2020 report covering 2019 data).

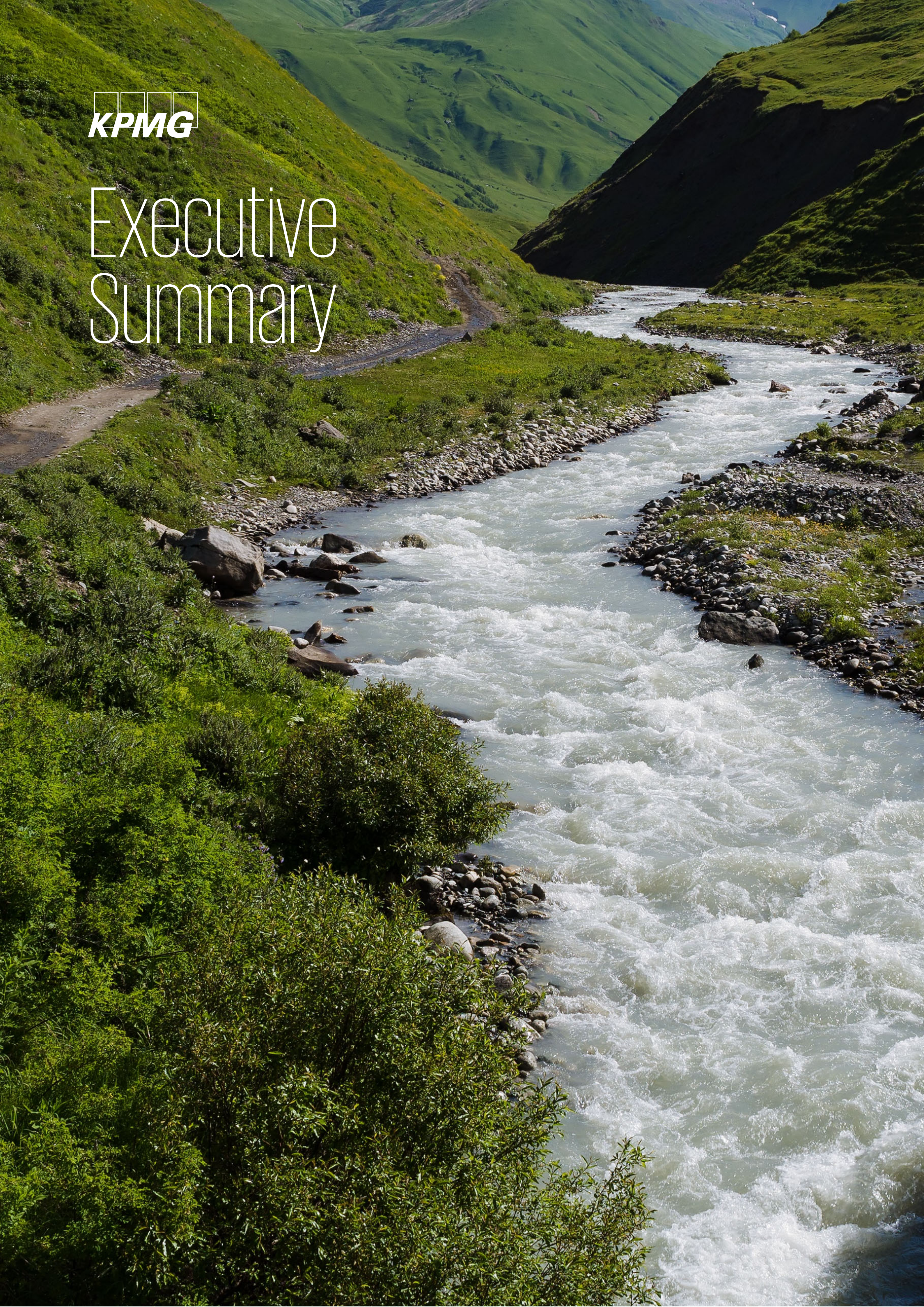
This study covers all 27 European Union member states in 2021, with an EU27 market overview. There are also individual country reports for the UK, Norway and Switzerland. More information on the agreed scope of work can be seen in the appendices to this Report.

It should be noted that external issues such as the COVID-19 pandemic have impacted the results for 2020 and 2021.

The methodology used to estimate the size of the illicit cigarette market in connection with the previous annual studies and the resulting Project 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, travel data, publicly available data-points, such as smoking prevalence and average prices of cigarettes, and the empty pack surveys separately commissioned by a number of 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

35.5bn

Counterfeit & Contraband cigarettes consumed

+1.3bn on 2020

+3.9% on 2020

8.1%

Of total consumption was C&C

+0.3ppt on 2020

€10.4bn

Estimated tax revenue lost[a]

+€1.9bn on 2020

+22% on 2020

Total cigarette consumption in the EU27 continued the declining trend seen since 2017. Non-domestic cigarette consumption volumes were similar to 2020 levels

— Following a sharp decline in 2020, total consumption continued to decline in 2021, albeit at a slower rate

— The decline was mostly due to declining legal domestic consumption (by 0.7% or 2.9 bn cigarettes) while non-domestic consumption (legal and illicit inflows combined) increased by 0.3bn cigarettes or 0.5%. Non-domestic inflows reached 52.9bn cigarettes and represent 12% of total consumption. Non-domestic legal consumption declined to 17.4bn cigarettes (a 1.1bn decrease compared to 2020). Illicit consumption increased to 35.5bn cigarettes (a 1.3bn increase compared to 2020)

Whereas the majority of EU27 markets experienced stable or declining consumption of illicit cigarettes in 2021, overall EU27 illicit cigarette consumption increased in 2021. This was predominantly due to relatively large increases in France and, to a lesser extent, in the Netherlands

— Illicit consumption (C&C) in the EU27 increased by 3.9% or 1.3bn cigarettes in 2021, continuing the growth seen in 2020 (2.3% or 0.8bn cigarettes)

— Had these cigarettes been legally purchased in the countries in which they were identified, an additional c.€10.4bn in taxes would have been raised in the EU27[a]

— Despite this overall increase, the majority of EU markets (i.e. 16 out of the EU27 markets) experienced stable or declining consumption of Illicit cigarettes in 2021

— Germany (-1.9 bn cigarettes) and Poland (-1.4 bn) saw relatively large decreases in the amount of illicit consumption, and reached the lowest levels of illicit consumption seen in the reporting period

— The increase in EU27 illicit consumption was predominantly due to growth in France (+3.4 bn cigarettes) and the Netherlands (+1.5 bn)

Illicit consumption grew primarily due to the growth in Counterfeit. Counterfeit increased by 2.0bn cigarettes or 19.3% to 12.3bn and accounted for 34.6% of EU27 illicit consumption (30.1% in 2020), mainly driven by a 2.0bn or 33% increase in France[b]

— Counterfeit now accounts for 2.8% of all cigarette consumption in the EU27, compared with 0.7% in 2017, and manufacturing of Counterfeit product appears to be moving closer to end markets within the EU27[2]

— France accounted for 64.7% of all Counterfeit consumption in the EU27 (58.0% in 2020)

— Illicit Whites volumes decreased by 1.1bn cigarettes or 11.2% to 8.6bn and accounted for 24.2% of illicit consumption (28.3% in 2020)

— Other C&C, which excludes Counterfeit and Illicit Whites, remains the largest category of illicit consumption, and increased by 0.4bn or 2.8% to 14.6bn cigarettes but accounted for a lower share of illicit consumption, 41.2% (41.5% in 2020) due to growth in Counterfeit

COVID-19 and border restrictions appear to be having an impact on the mix of illicit cigarette consumption in the EU27. Counterfeit and Other C&C flows from inside the EU27 are increasing, replacing non-EU27 Illicit Whites and Other C&C flows

— COVID-19 and EU27 border restrictions have complicated traditional routes of entry for illicit goods and seem to have made carrying Contraband and Illicit Whites across borders higher risk. As a result, Organised Crime Groups (OCGs) have shifted their focus towards manufacturing Counterfeit, and sourcing contraband from other EU27 markets[2]

— Flows from identifiable markets within the EU27 increased by 0.7bn cigarettes, while those from outside the EU27 declined by 2.0bn

Note: (a) Excludes €2.8bn 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) 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) EU law enforcement interviews

KPMG

Law enforcement discussions

Discussions with EU27 law enforcement[1] highlighted a number of trends, namely:

Travel restrictions and increased law enforcement capabilities are impacting Organised Crime Group (OCG) supply chains

- Border restrictions have complicated traditional routes of entry for illicit goods and have made carrying Contraband across borders more risky
  - COVID-19 has reduced travel, thereby disrupting air, rail and ferry routes used for ant-smuggling (i.e. moving cigarettes in a large number of small consignments), and greater border security has increased the risk of detection of large road shipments of illicit goods
  - The closure of the majority of Belarus' border crossing points[2] has impacted land border flows from a major historical C&C source
- The investment that EU27 law enforcement agencies have made in detection technology (e.g. X-ray machines and other scanners) has increased the risks and costs of smuggling via shipping container into the EU. This has made smuggling Illicit Whites and Contraband more difficult

The number of illegal manufacturing sites in the EU27 is increasing

- Given increasing difficulties in importing illicit cigarettes into the EU, OCGs have shifted their focus towards manufacturing Counterfeit. As a result, law enforcement are detecting a higher number of illegal factories within the EU27, with these illegal factories producing Counterfeit of both legitimate and Illicit Whites brands
- Illegal manufacturing sites are increasingly moving West in Europe to get closer to higher-priced end markets and reduce the risk of moving higher value and more easily detectable finished goods to consumers
- This shift towards Counterfeit has also changed the distribution model. The increasing popularity of in or near end-market illegal manufacturing also provides new options, such as using cars instead of trucks for road transport to reduce detectability and the financial and disruptive impact of seizures

Organised Crime Groups have adapted their approach to smuggling Contraband and Illicit Whites

- OCGs are becoming more agile, changing their organisational structures and operating models in response to the restrictions in place
  - Contraband is increasingly being sourced from other EU27 markets to reduce risks given the increased barriers to importing from outside the bloc
  - The use of postal freight to transport illicit cigarettes is increasingly popular as a means of avoiding restrictions on the movements of people

A more analytical and collaborative approach to law enforcement has paid dividends

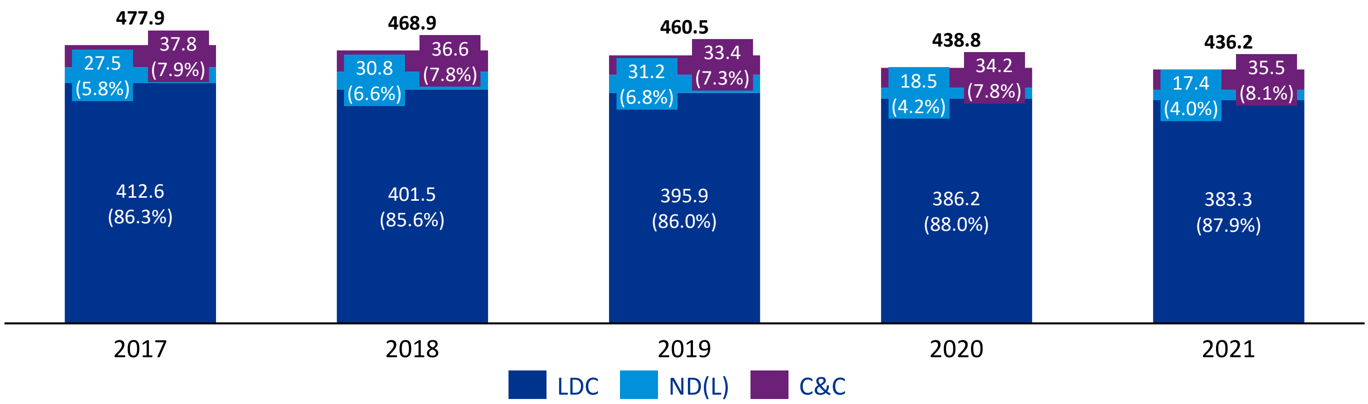
- Law enforcement agencies are increasingly using analytical techniques, such as raw material tracking, to understand where and how illicit flows are entering or leaving their jurisdiction, and what is the intended end-market
- Cross-border collaboration using the data generated from these techniques has led to a number of high profile raids, seizures and arrests

Source: (1) Interviews with seven EU law enforcement agencies
(2) Context of the ongoing Belarus-EU migration crisis, Office of the United Nations High Commissioner for Human Rights

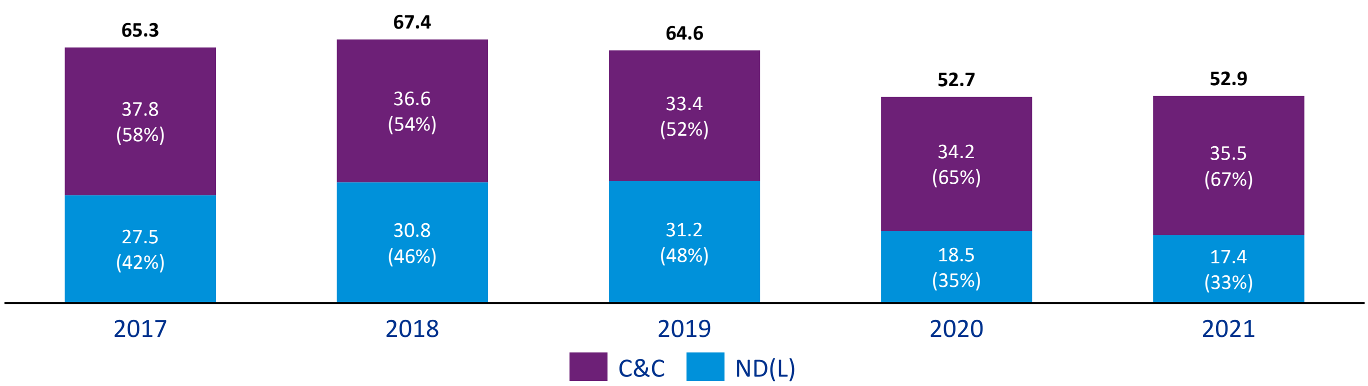
EU27 cigarette consumption trend

- Following a relatively large decline in 2020 due to the impact of COVID-19 on Non-Domestic Legal (ND(L)) consumption, total consumption continued to decline in 2021, albeit at a slower rate
- Legal Domestic Consumption (LDC) declined by 0.7% in 2021, below the long term average of 1.8% per year observed between 2017 and 2021
- Non-domestic consumption remained at levels similar to those seen in 2020 with a relatively small increase of 0.3bn to 52.9bn cigarettes in 2021, driven by an increase in illicit (C&C)[a]
  - ND(L) volumes remained relatively low in 2021, declining by 1.1bn to 17.4bn cigarettes as travel volumes remained below pre-2020 levels[2][3]
  - Illicit consumption more than offset the decline in ND(L), with C&C volumes increasing by 1.3bn cigarettes to 35.5bn cigarettes, and forming 67% of non-domestic consumption in 2021 compared to 65% in 2020

Total manufactured cigarette consumption in the EU27, 2017-2021 (bn cigarettes)[1]



Non-domestic cigarette consumption in the EU27, 2017-2021 (bn cigarettes)[1]



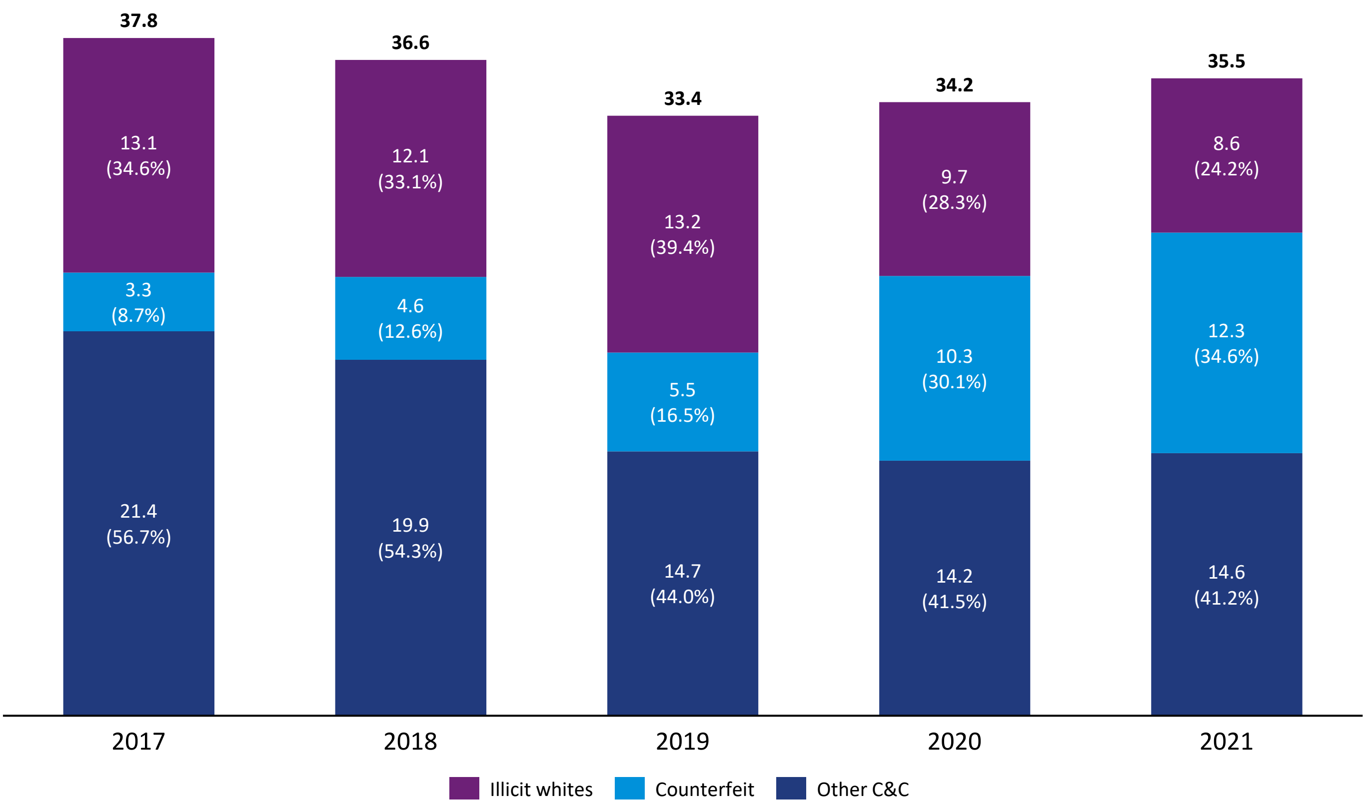
Notes: (a) Due to rounding, the difference between 2020 and 2021 totals shown in the chart may vary from the actuals

Sources: (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) UNWTO; (3) Euromonitor

C&C trend by type

- C&C consumption increased by 3.9% or 1.3bn cigarettes in 2021, with an increase in Counterfeit and Other C&C partly offset by a decline in Illicit Whites
- Despite a decline in a number of countries, overall Counterfeit consumption increased by 2.0bn (19.3%). This was primarily driven by an approximately 2.0bn increase in Counterfeit consumption in France
- Illicit Whites consumption continued to decline (-1.1bn or 11.2%) in 2021 to the lowest level observed in the reporting period. The largest declines were in Poland (0.71bn), Italy (0.35bn) and Germany (0.22bn)
- Other C&C increased by 0.4bn in 2021 with the largest increases in France (an increase of 1.4bn cigarettes), the Netherlands (1.4bn) and Denmark (0.2bn) and the largest declines in Germany (a decline of 1.4bn cigarettes), Italy (0.7bn), Poland (0.5bn) and Spain (0.4bn)

C&C trend by type in the EU27, 2017-2021 (bn cigarettes)[(1)]



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 was primarily driven by an increase in C&C in France and, to a lesser extent, in the Netherlands

— France continues to remain the largest market for illicit cigarettes in the EU27, with an increase of 3.4bn cigarettes in 2021. This was driven by a 2.0bn or 33.1% increase in Counterfeit and 1.4bn increase in Other C&C

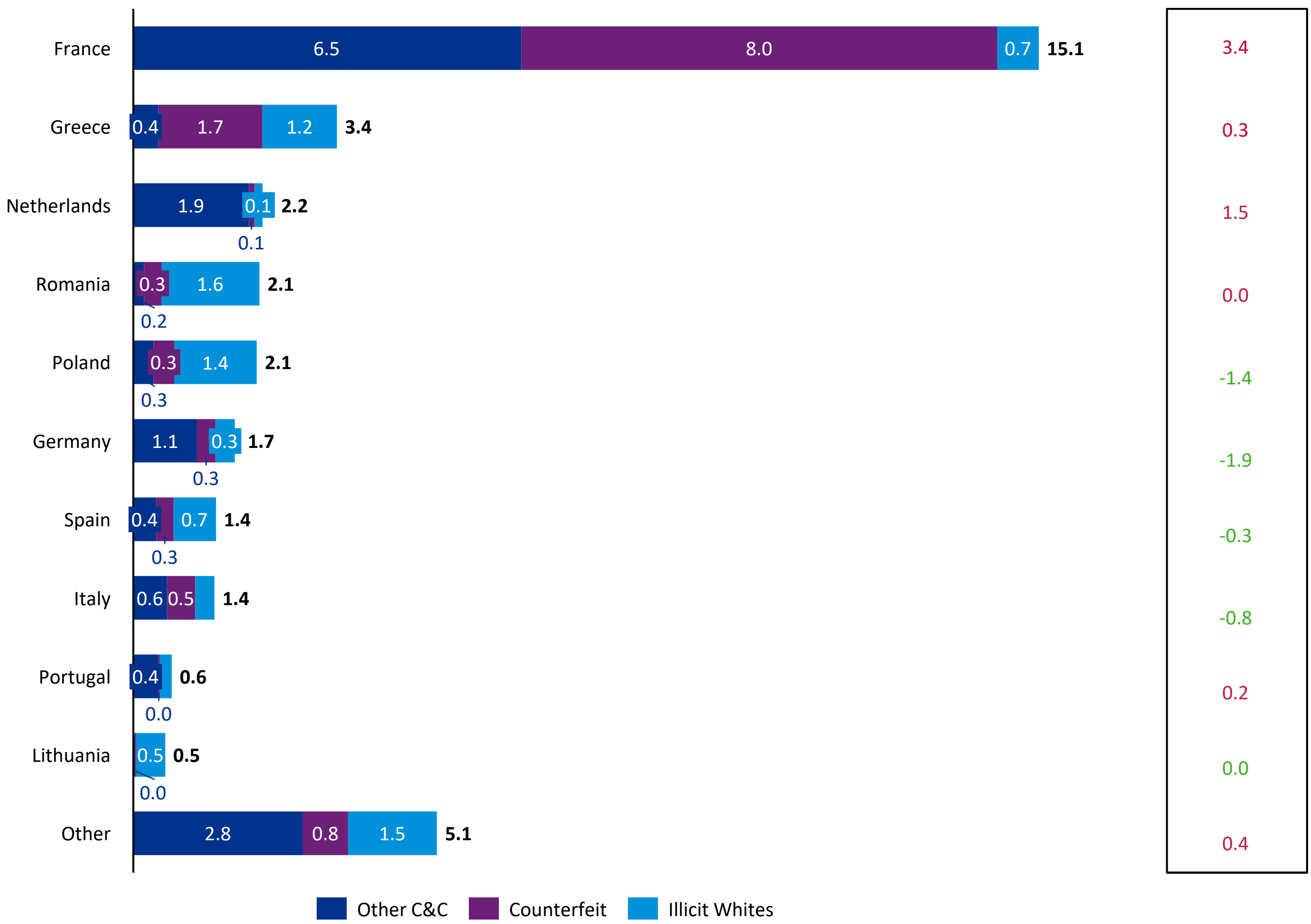
— Netherlands' C&C volumes increased by 1.5bn in 2021, driven by a 1.4bn cigarette increase in Other C&C, to become the third largest market for illicit cigarettes in the EU27

— Germany saw the largest decline in C&C volume in 2021, declining by 1.9bn cigarettes, followed by Poland, which declined by 1.4bn cigarettes

— The UK, which left the EU in 2020, was the second largest illicit cigarette consumption market in this study, with C&C of 5.5bn cigarettes, an increase of 0.2bn over 2020

Top 10 EU27 C&C countries by volume, 2021 (bn cigarettes)(1)

Change on 2020 results



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

— Eighteen of the EU27 markets had illicit consumption shares of less than 10%

— The highest illicit consumption shares in the EU27 were in France (29%) and Greece (24%)

C&C as a percentage of total consumption, 2021 (bn cigarettes)(1)

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

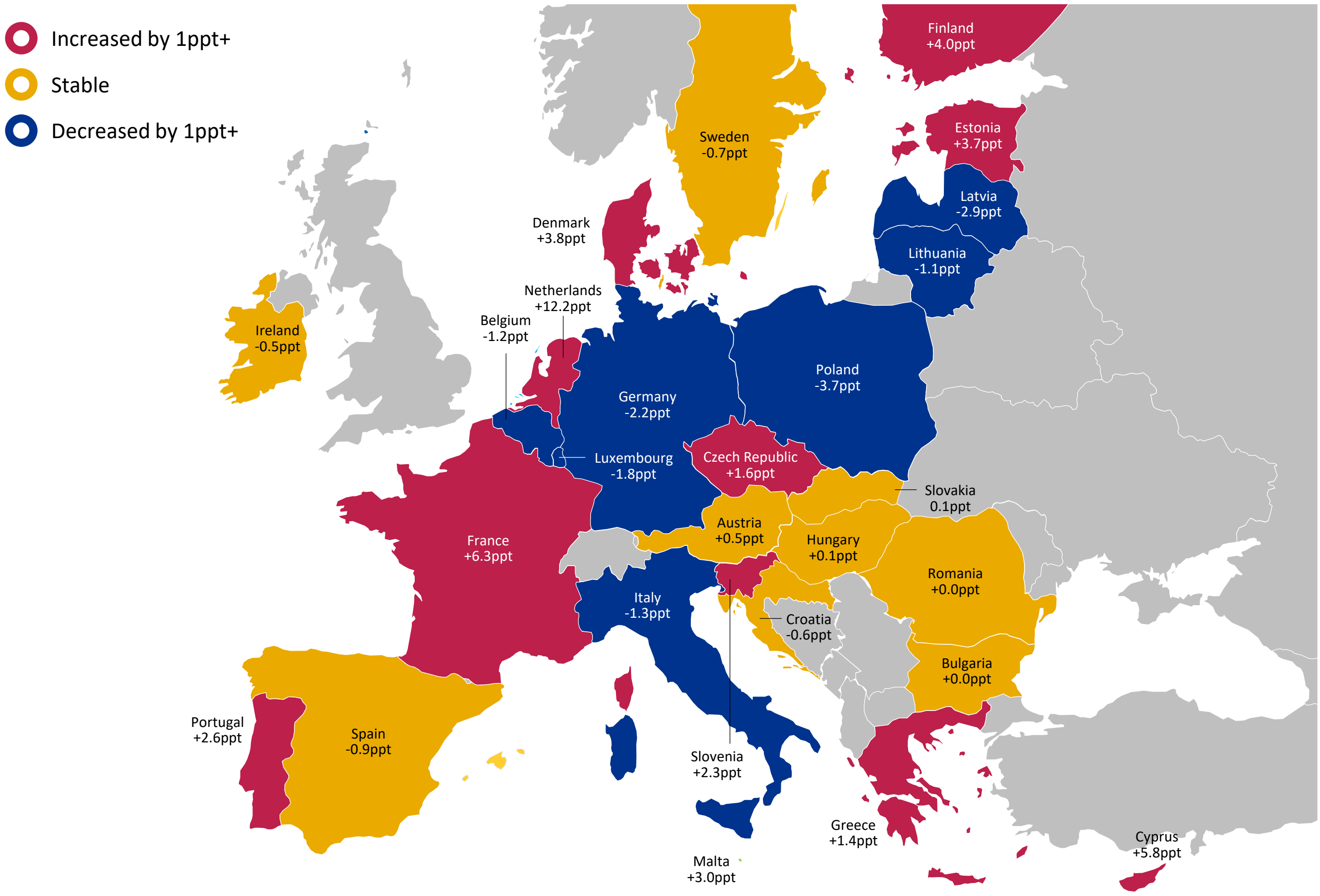
C&C consumption trend (cont.)

— The majority of markets (i.e. 16 out of the EU27 markets) experienced stable or declining consumption of Illicit cigarettes in 2021

— The Netherlands and France had the largest increase in share of C&C, with C&C share increasing by 12.2ppt in the Netherlands and 6.3ppt in France

— Poland and Latvia had the largest decrease in share of C&C, with C&C share decreasing by 3.7ppt in Poland and 2.9ppt in Latvia

Change in share of C&C consumption vs prior year, 2021 (ppt)(1)



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

— 35% of illicit cigarette consumption in the EU27 in 2021 was driven by Counterfeit (30% in 2020)

— Illicit cigarettes that can be identified as flowing from one EU27 country to another increased by 0.7bn, continuing the growth trend observed in 2020 (1.5bn increase in 2020) and accounted for 23% of illicit consumption in the EU27 (21% in 2020)

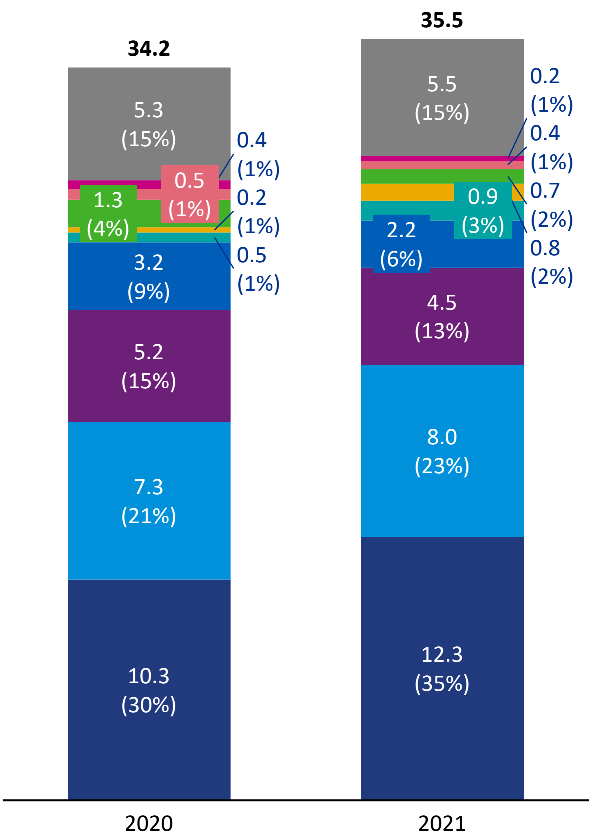
— Illicit Whites with no country-specific labelling increased by 0.2bn in 2021, compared to a 3.4bn decline in 2020

— Against a backdrop of increased EU-Belarus border restrictions and crossing point closures beginning in July 2021, Belarusian C&C inflows declined by 1.0bn to similar levels as seen in 2019 (0.9bn increase in 2020)[2]

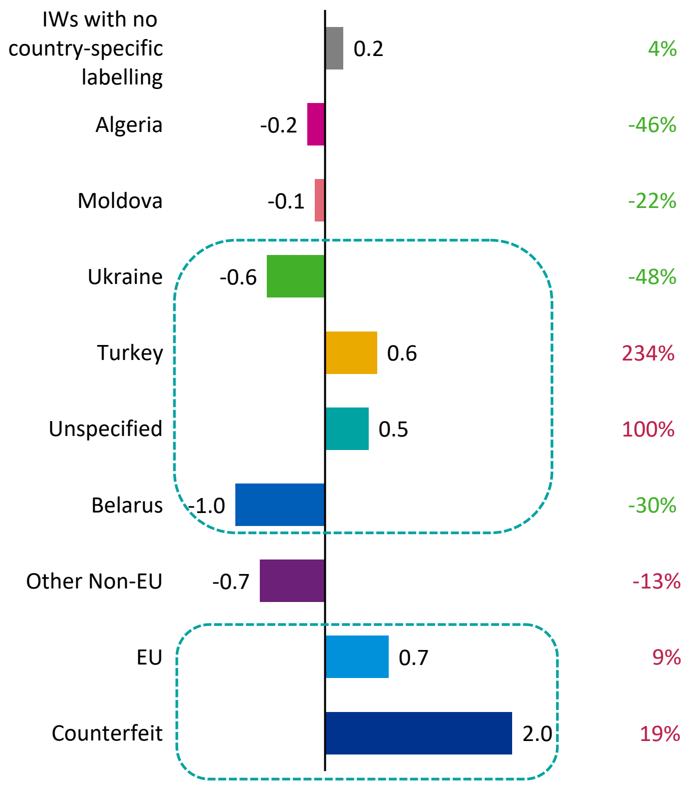
— Ukrainian C&C inflows continued to decline in 2021 to the lowest level seen in the reporting period

— Inflows from Turkey increased by 0.6bn in 2021 to the highest level seen in the reporting period

Sources of C&C in the EU27, 2020-2021 (bn cigarettes)[1]



Change on 2020 results (bn cigarettes, %)

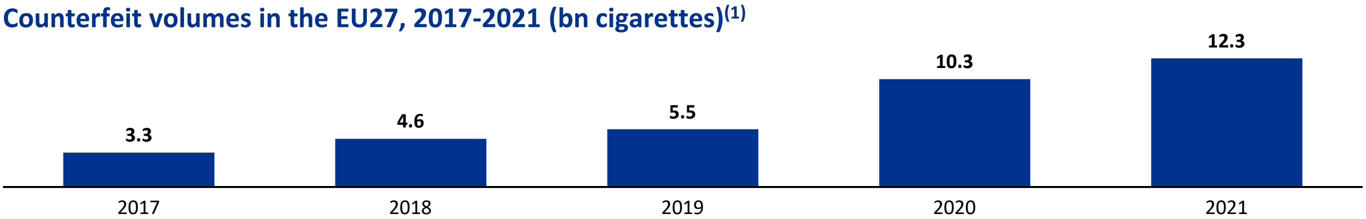


Source: (1) EU27 level results are an aggregation of the EU Flows Calculation results for the 27 EU member states, a detailed methodology and list of sources for each market is available in the methodology section of this Report, (2) Context of the ongoing Belarus-EU migration crisis, Office of the United Nations High Commissioner for Human Rights

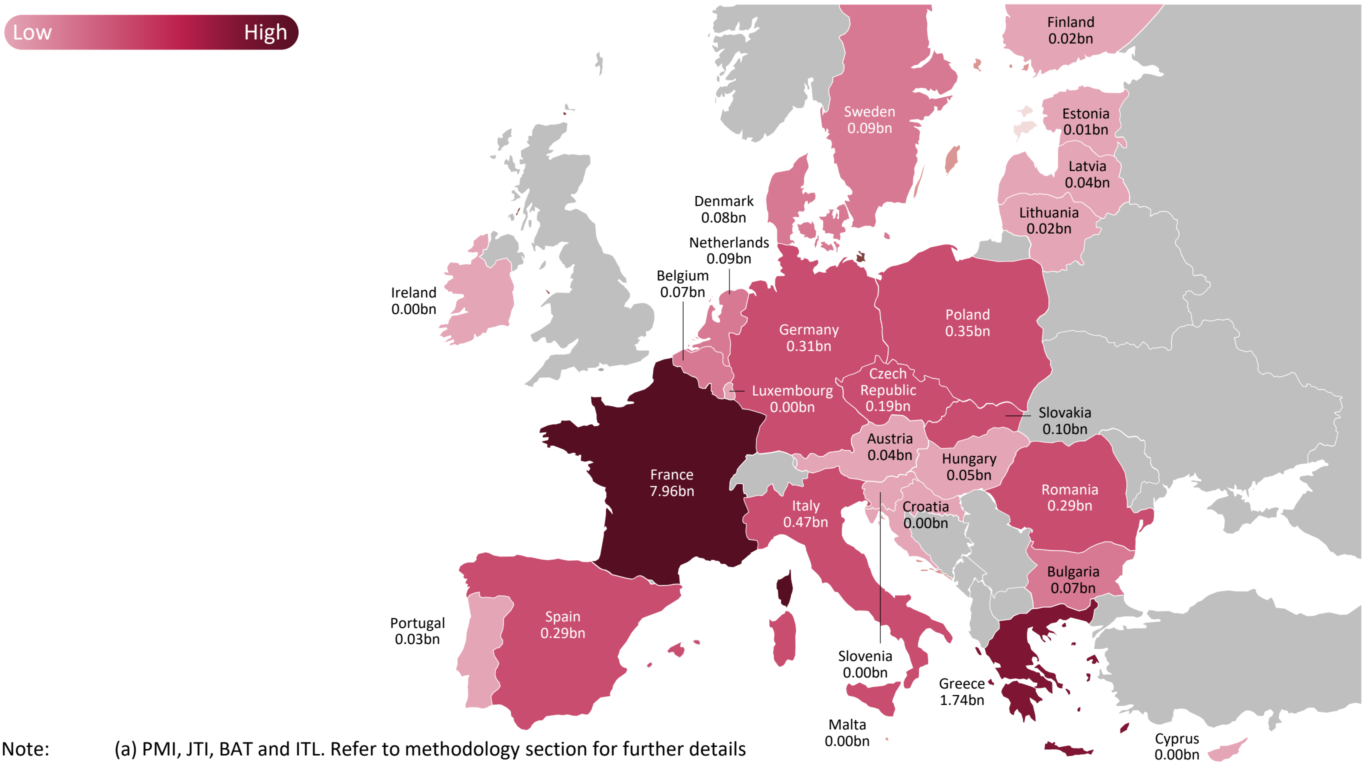
Focus on Counterfeit

- Counterfeit volumes continued to increase in 2021 (+2.0 bn or 19%), albeit at a lower level than that seen between 2019 and 2020 (+4.8bn or 87%)
- Counterfeit now represents 2.8% of total cigarette consumption in the EU27 (up from 2.3% in 2020)
- Counterfeit consumption was highest in France (8.0bn) and Greece (1.7bn)
- The markings on Counterfeit packs identified varies by market. For example, 39% of Counterfeit packs identified in France had Duty Free labels and a further 29% had Belgian labels, whereas approximately 65% of Counterfeit identified in Greece had domestic labelling
- Interviews with law enforcement[2] indicates that increasing volumes of the Counterfeit detected in this study may be manufactured in illegal factories within the EU27. Furthermore, as only participating manufacturers[a] 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, 2017-2021 (bn cigarettes)[1]



Counterfeit volume in the EU27, 2021 (bn cigarettes)[1]



Note: (a) PMI, JTI, BAT and ITL. Refer to methodology section for further details

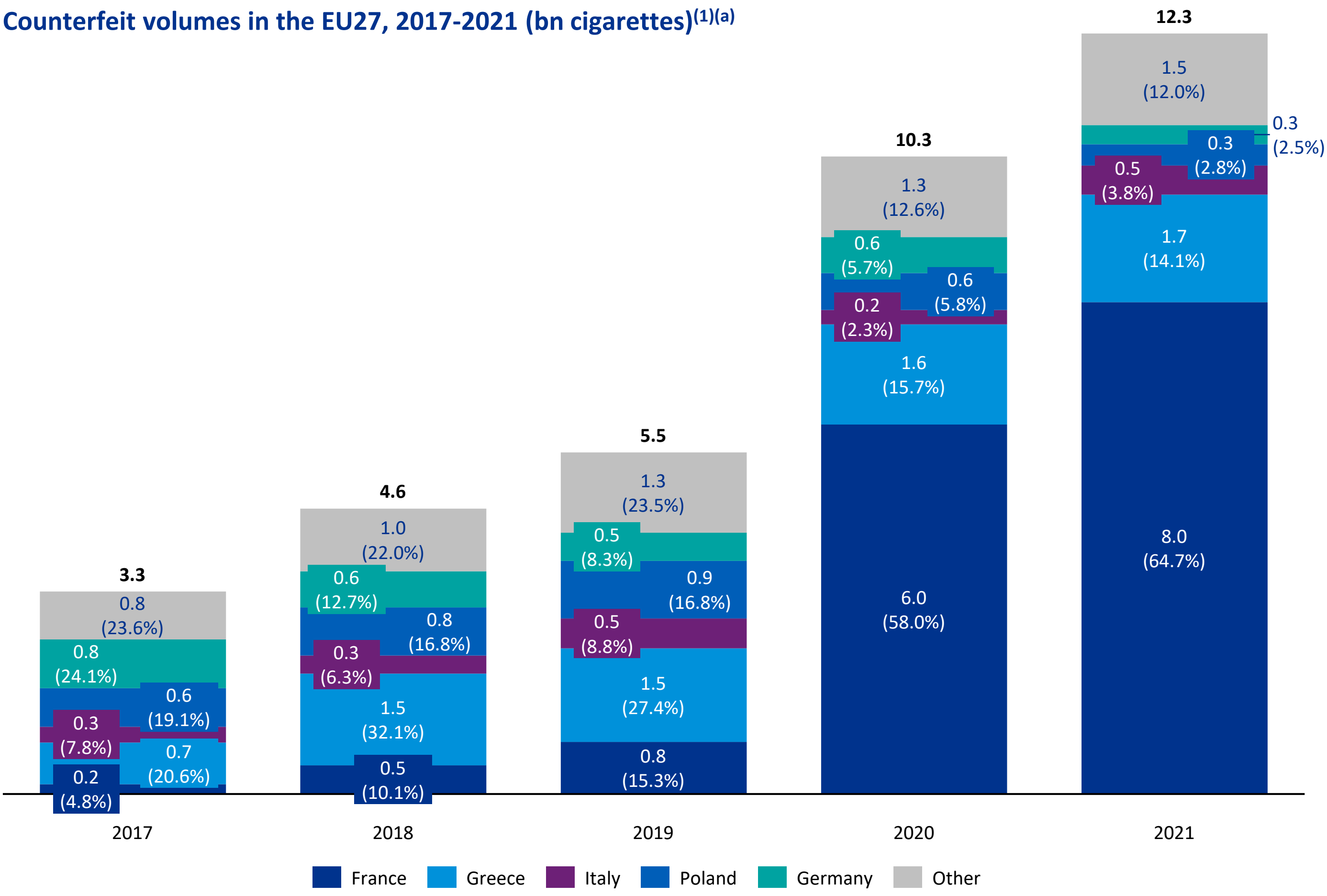
Source: (1) EU27 level results are an aggregation of the EU Flows Calculation results for the 27 EU member states, a detailed methodology and list of sources for each market is available in the methodology section of this Report (2) Law enforcement interviews, refer to page 10 for further details

Focus on Counterfeit (cont.)

— The largest year-on-year increase in Counterfeit consumption was noted in France (1.98bn or 33%)

— Excluding France, increased Counterfeit volumes in Italy (0.3bn) and smaller markets grouped together under the 'Other' category (0.2bn) were offset by declines elsewhere, primarily in Germany (0.3bn) and Poland (0.3bn)

Counterfeit volumes in the EU27, 2017-2021 (bn cigarettes)[(1)(a)]



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

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

Focus on Illicit Whites

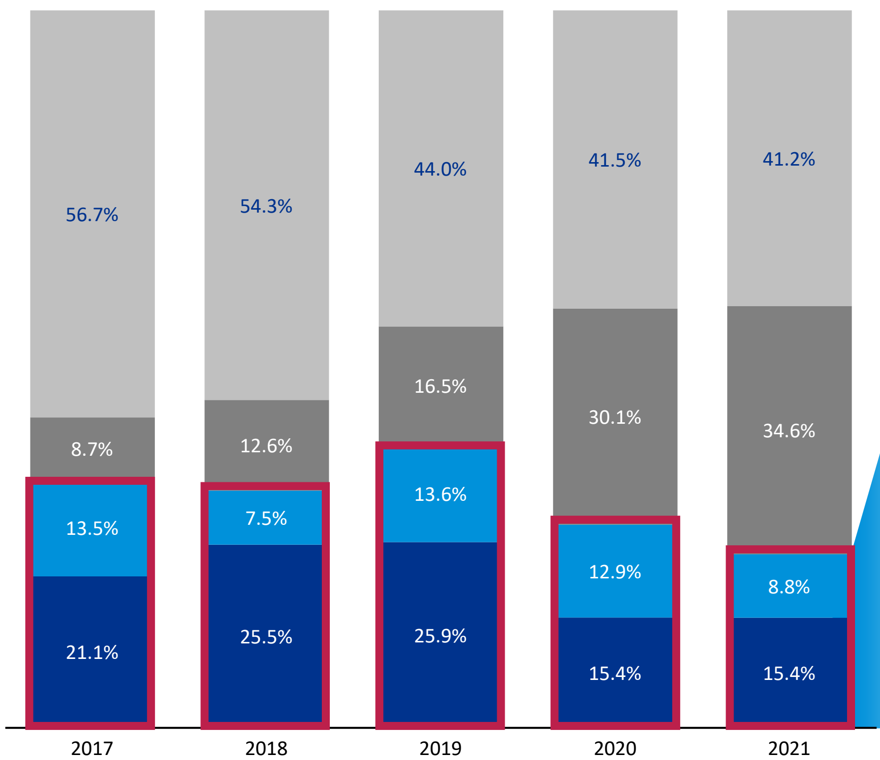
— Illicit Whites' share of illicit consumption in the EU27 decreased further, accounting for 24% or 8.6bn of EU27 illicit consumption in 2021 (28% or 9.7bn in 2020)

— The volume of Illicit Whites with known origins declined by 1.3bn to 3.1bn cigarettes, representing 8.8% of total illicit consumption. This decline was principally driven by Belarus (0.8bn), Ukraine (0.2bn), Moldova (0.1bn), Czech Republic (0.1bn) and Spain (0.1bn).

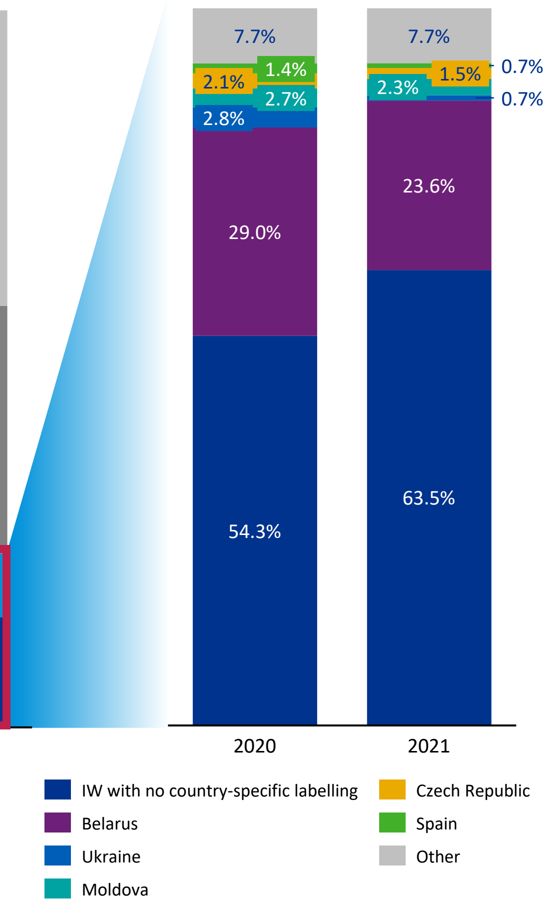
— Illicit Whites with no country-specific labelling increased by 0.2bn to 5.5bn cigarettes in 2021, and represented 15.4% of total illicit consumption. These Illicit Whites have no health warnings or are labelled as Duty Free. This generic labelling makes identification of the source market difficult

— Interviews with law enforcement[2] indicate that some of these Illicit Whites with no country-specific labelling are manufactured in illegal factories within the EU27

Illicit Whites as a percentage of total C&C in the EU27, 2017-2021[1]



Share of Illicit Whites by origin, 2020-21 (%)

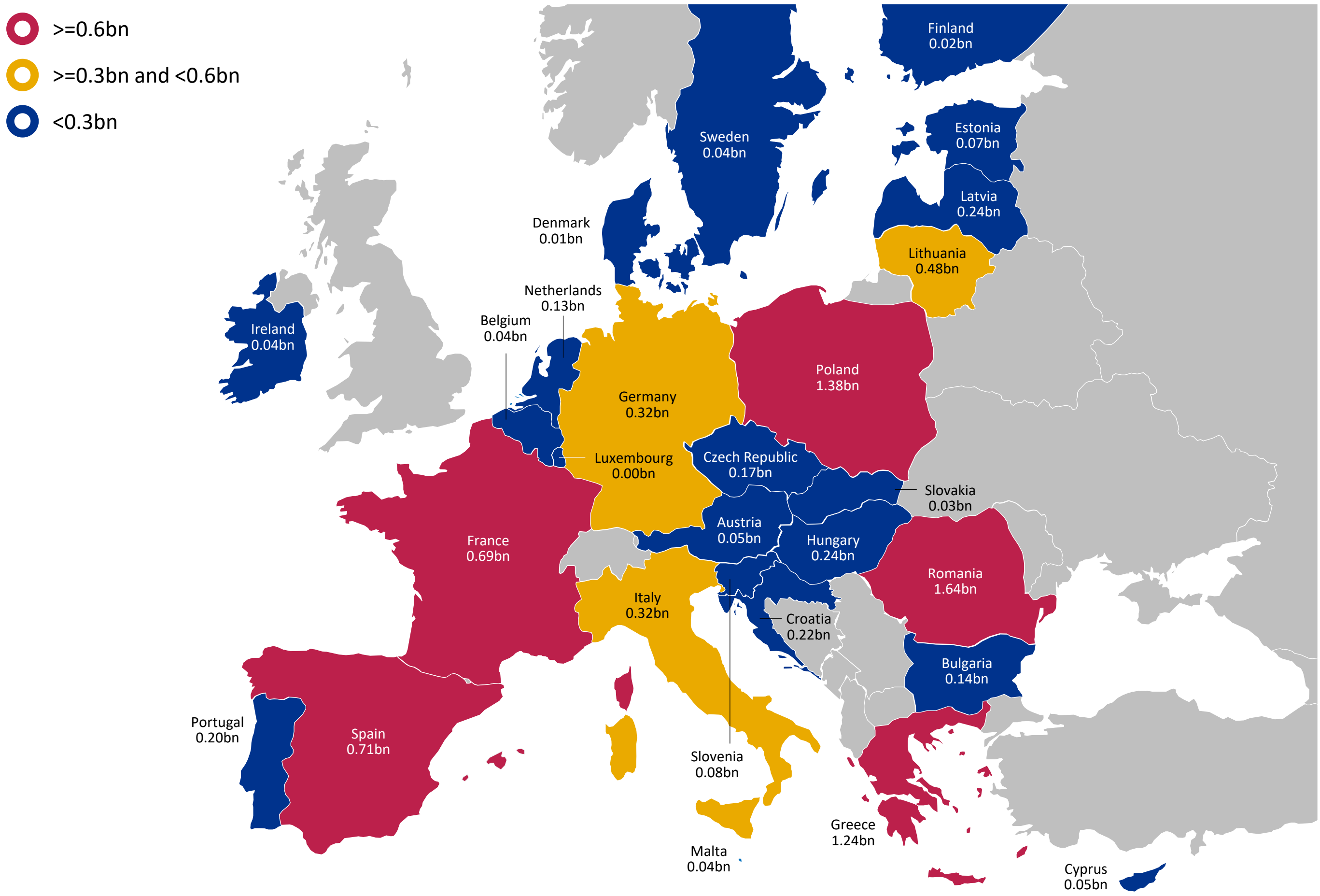


Source: (1) EU27 level results are an aggregation of the EU Flows Calculation results for the 27 EU member states, a detailed methodology and list of sources for each market is available in the methodology section of this Report (2) Law enforcement interviews, refer to page 10 for further details

Focus on Illicit Whites (cont.)

- The highest flows of Illicit Whites were measured in Romania (1.6bn), Poland (1.4bn) and Greece (1.2bn)
- The overall EU27 Illicit Whites decline of 1.1bn was predominantly driven by declines in Poland (0.7bn), Italy (0.3bn) and Germany (0.2bn)
- Romania saw the largest increase (0.1bn)
- The five largest Illicit Whites inflow countries in the EU27 (highlighted in red) accounted for 66% or 5.7bn of the total Illicit Whites flows in the EU27

Illicit Whites consumption in the EU27, 2021 (bn cigarettes)(1)



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 (cont.)

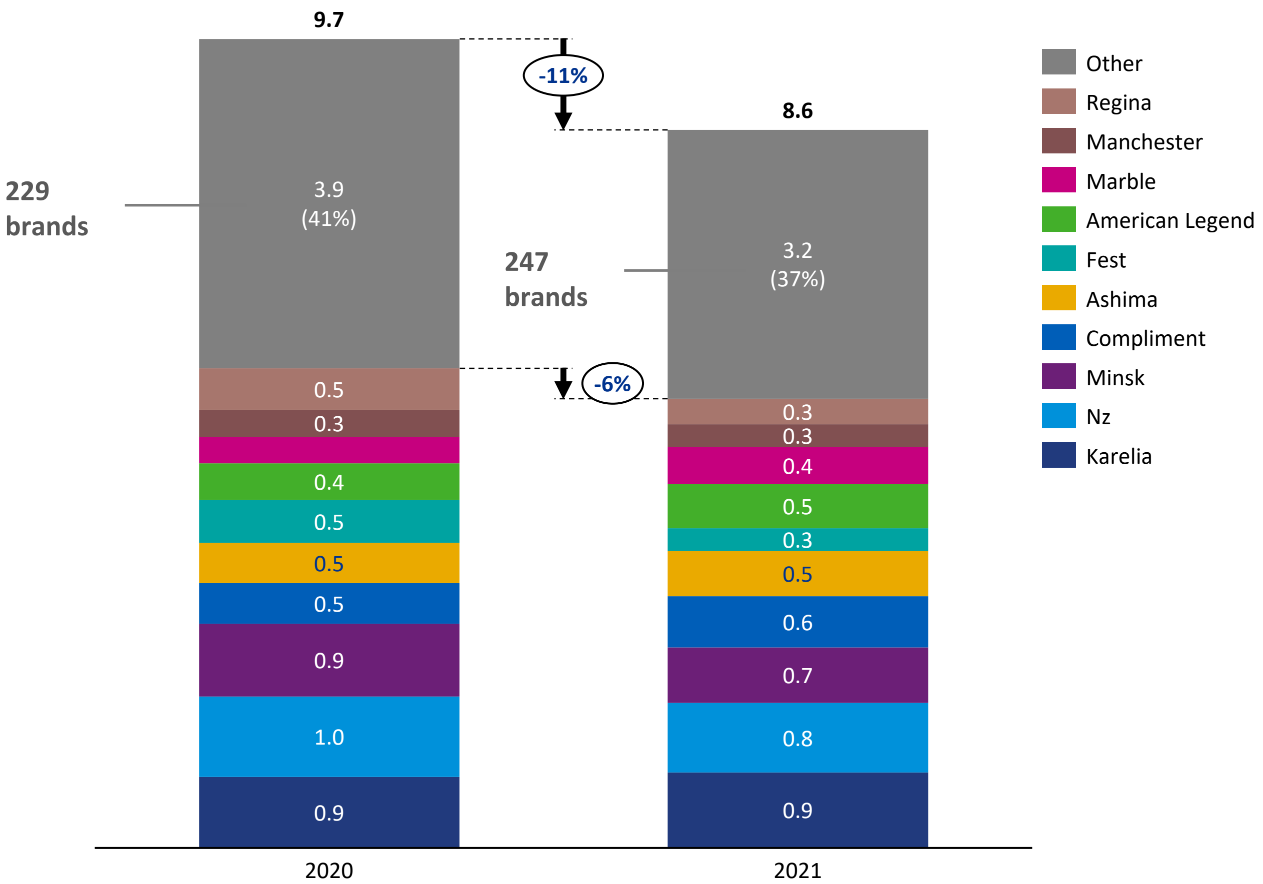
— The top 10 Illicit Whites brands accounted for approximately 63% of EU27 Illicit Whites consumption in 2021 (59% in 2020)

— Approximately 67% of the 1.1bn decrease in EU27 Illicit Whites consumption in 2021 was due to smaller brands outside of the top 10

— Despite a decline in inflows attributable to brands outside of the top 10 to 3.2bn (-0.7bn), the number of brands composing this 3.2bn increased to 247 (+18 on 2020)

— Interviews with EU27 law enforcement representatives indicated that Counterfeiting of Illicit Whites brands in illegal EU27 factories remained an issue in 2021. 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, 2020-2021 (bn cigarettes)[(1)]



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

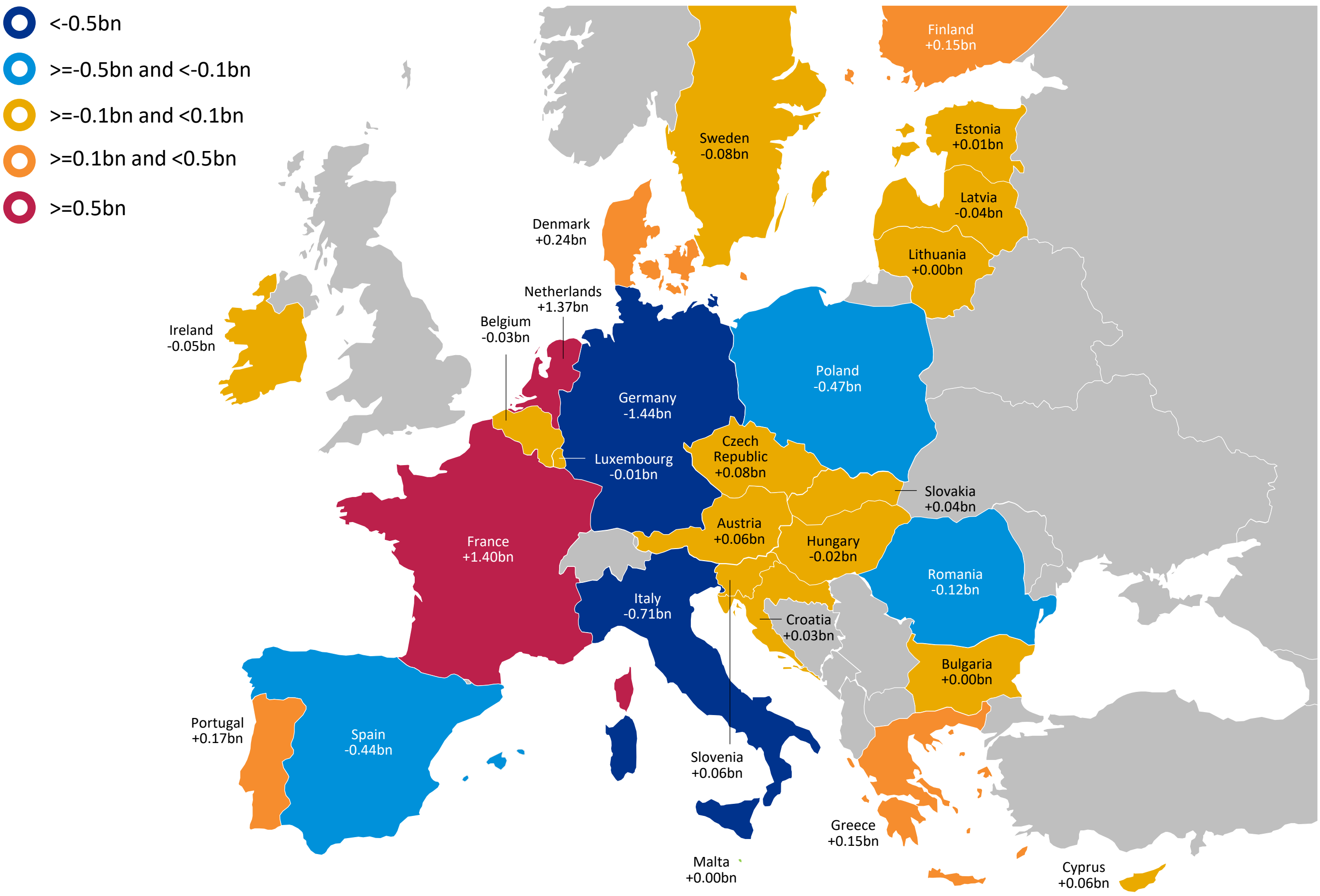
Focus on Other C&C

— Other C&C volumes increased by 0.4bn to 14.6bn cigarettes, but due to an increase in overall C&C in the EU27 in 2021, Other C&C's share of illicit consumption reduced to 41% (42% in 2020)

— The largest increases were in France (1.4bn), the Netherlands (1.4bn), Denmark (0.2bn), Portugal (0.2bn), Finland (0.2bn) and Greece (0.2bn), partly offset by declines in Germany (1.4bn), Italy (0.7bn), Poland (0.5bn), Spain (0.4bn) and Romania (0.1bn)

— Duty Free is the largest source of Other C&C in the EU27, accounting for 1.7bn cigarettes or 11.9% of the total (1.7bn or 12.2% in 2020). Inflows from within the EU27 accounted for 7.5bn or 51.0% of the total (6.7bn or 47.1% in 2020)

Change in Other C&C consumption vs prior year, 2021 (bn cigarettes)[1]

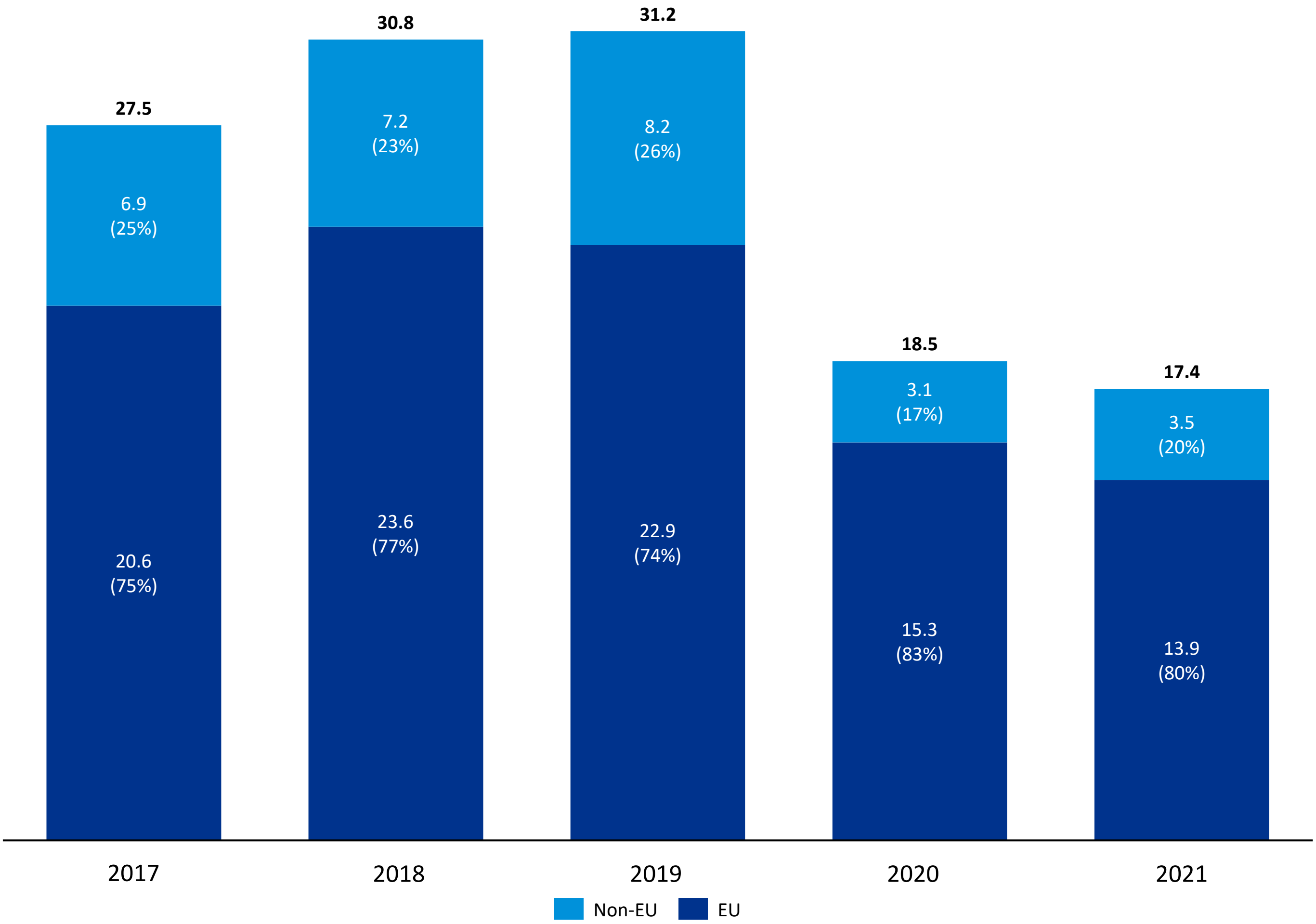


Source: (1) EU27 level results are an aggregation of the EU Flows Calculation results for the 27 EU member states, a detailed methodology and list of sources for each market is available in the methodology section of this Report

Non-domestic legal trend (ND(L))

— ND(L) consumed in the EU27 declined by 1.1bn (6%) in 2021 following on from a larger decline between 2019 and 2020 (12.7bn or 41%), reflecting the ongoing impact of travel restrictions and border controls that were still in place in 2021

Source of ND(L) in the EU27, 2017-2021 (bn cigarettes)(1)



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

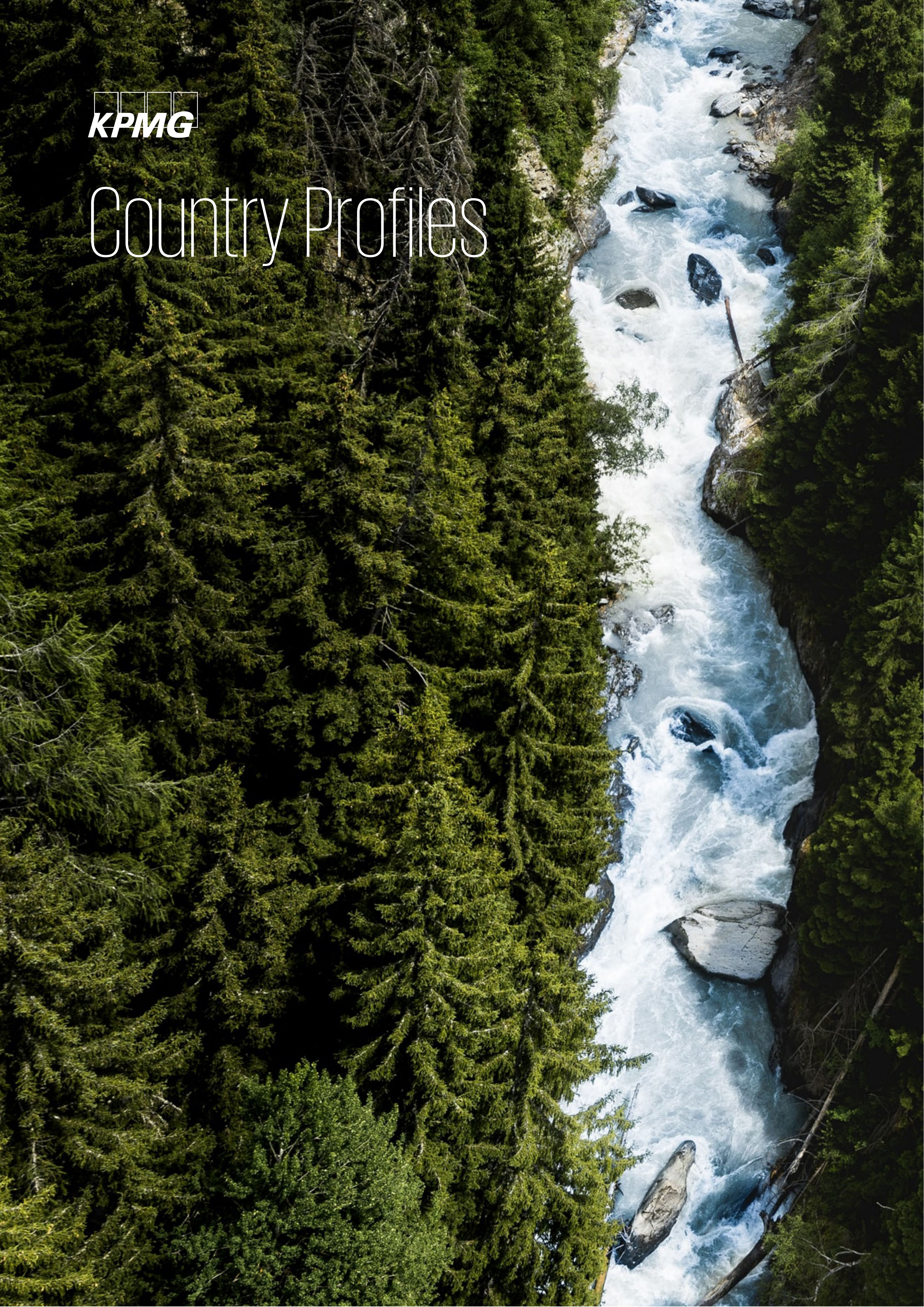
Non-domestic legal trend (ND(L)) (cont.)

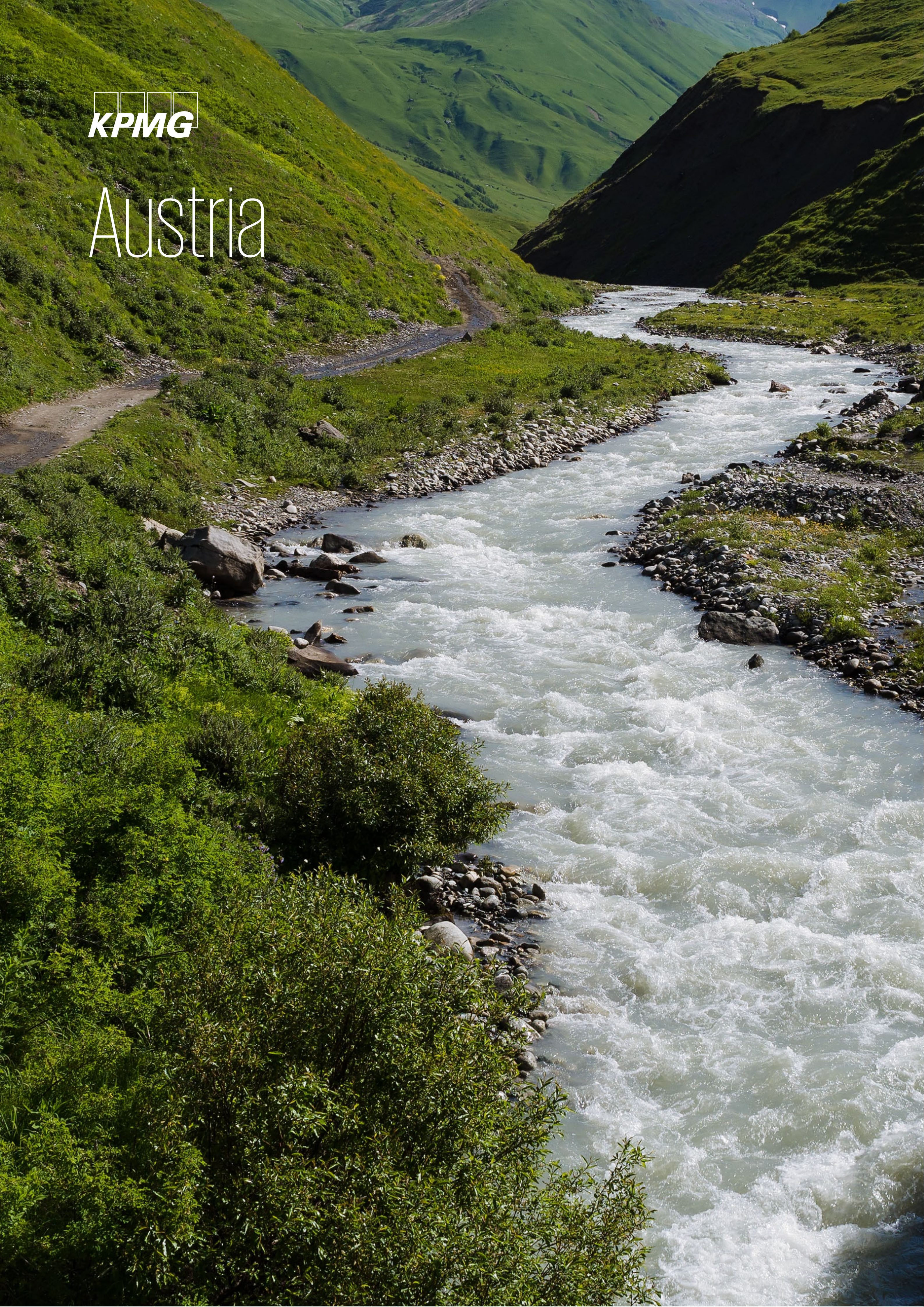
- Overall ND(L) volumes declined across the EU27. However, the rate of decline varied across the member states
- The Czech Republic showed the highest growth, with ND(L) volumes increasing by 306%, albeit this represented a return to 2019 ND(L) levels after a large decline in 2020. A similar pattern of high ND(L) growth to return to pre-pandemic levels was also apparent in Slovenia and Croatia, indicating that in some markets demand for cross-border purchases remained strong
- Estonia and Luxembourg showed the largest rates of decline, 51% and 42% respectively

Rate of ND(L) change, 2021 (%)[(1)]

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

Country Profiles





Austria

Austria

C&C cigarette consumption and total consumption

13.0bn

Cigarettes consumed

-0.09bn on 2020

0.5bn

C&C cigarettes consumed

+0.06bn on 2020

3.9%

Of total consumption was C&C

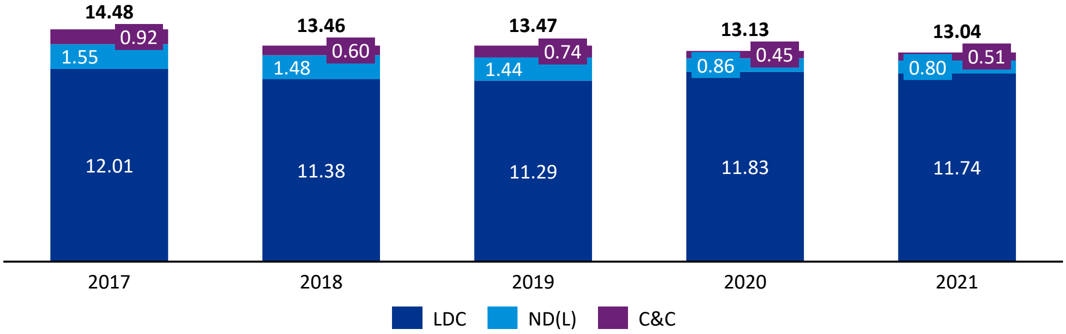
+0.45%pts on 2020

€101m

Total tax revenue lost from C&C

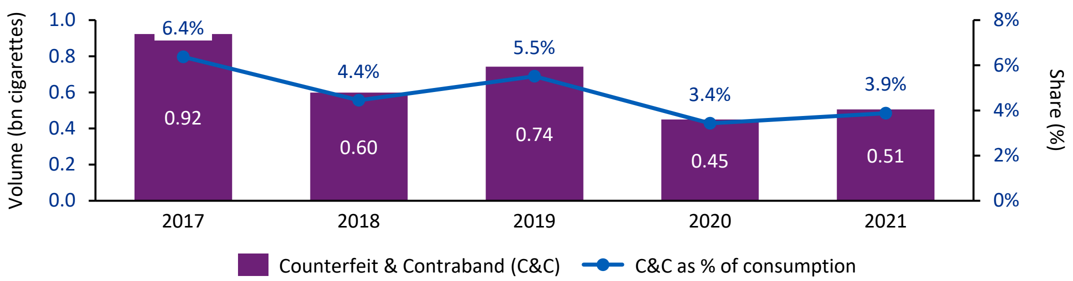
+€13m on 2020

Total consumption – 2017-2021 (bn cigarettes)(1)(2)

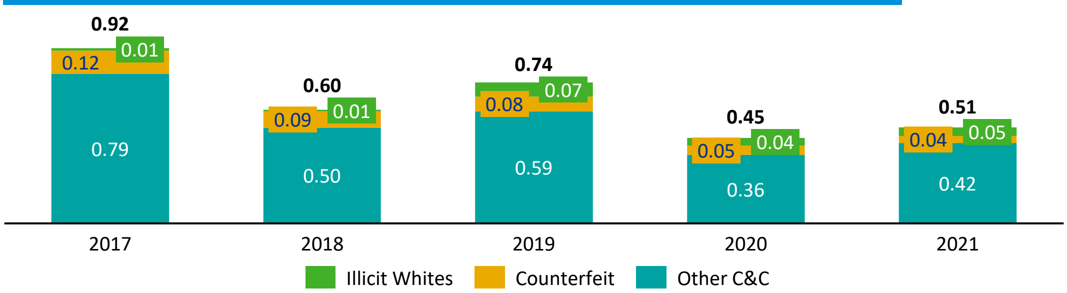


— C&C as a share of total cigarette consumption increased by 0.5ppt in 2021, driven by an increase in Other C&C

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2017-2021(1)(2)



C&C consumption by type – 2017-2021 (bn cigarettes)(1)(2)(a)



Note: (a) C&C breakdown chart only includes Counterfeit volumes related to brands of manufactures who participate in the empty pack/yellow bag surveys;.(b)Total tax revenue lost represents estimated excise and VAT if C&C volumes had been consumed legally in the country of study; (c) Due to rounding, segments highlighted in the charts may not add up to the total and year-on-year changes highlighted in the sidebar may differ from the charts

Source: (1) KPMG EU Flows Calculation, 2017-21; (2) In Market Sales data

Austria

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2017-2021[1][2]

Total Austria Consumption						
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**	**2020-21 (%)**
Legal Domestic Sales (LDS)	12.40	11.83	11.73	12.23	12.12	(1%)
Outflows	(0.40)	(0.45)	(0.44)	(0.40)	(0.38)	(6%)
Legal Domestic Consumption (LDC)	12.01	11.38	11.29	11.83	11.74	(1%)
Non-Domestic Legal (ND(L))	1.55	1.48	1.44	0.86	0.80	(7%)
Counterfeit and Contraband (C&C)	0.92	0.60	0.74	0.45	0.51	12%
Total Non-Domestic	2.47	2.08	2.18	1.31	1.30	(0%)
Total Consumption	**14.48**	**13.46**	**13.47**	**13.13**	**13.04**	**(1%)**

— Total cigarette consumption declined by 1% in 2021, primarily due to lower legal domestic sales

— The neighbouring lower-priced markets of Slovenia, Czech Republic and Slovakia remained the main source of non-domestic inflows in 2021, with Slovenia becoming the largest inflow market for the first time in the reporting period

— Germany remained the largest destination for outflows, accounting for 66% of the total

Total inflows by country of origin – 2017-2021[1][a]

Inflows to Austria					
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**
Slovenia	0.34	0.39	0.20	0.11	0.24
Czech Republic	0.72	0.42	0.46	0.30	0.14
Slovakia	0.17	0.18	0.28	0.15	0.13
Germany	0.05	0.07	0.08	0.05	0.10
Serbia	0.12	0.09	0.14	0.06	0.08
Other	1.07	0.94	1.02	0.64	0.60
Total Inflows	**2.47**	**2.08**	**2.18**	**1.31**	**1.30**

Total outflows by destination – 2017-2021[1][a]

Outflows from Austria					
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**
Germany	(0.21)	(0.20)	(0.25)	(0.27)	(0.25)
Switzerland	(0.05)	(0.05)	(0.03)	(0.05)	(0.04)
Slovenia	(0.00)	(0.03)	(0.00)	(0.00)	(0.02)
Other	(0.13)	(0.17)	(0.16)	(0.08)	(0.07)
Total Outflows	**(0.40)**	**(0.45)**	**(0.44)**	**(0.40)**	**(0.38)**

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

Source: (1) KPMG EU Flows Calculation, 2017-21; (2) In Market Sales data;

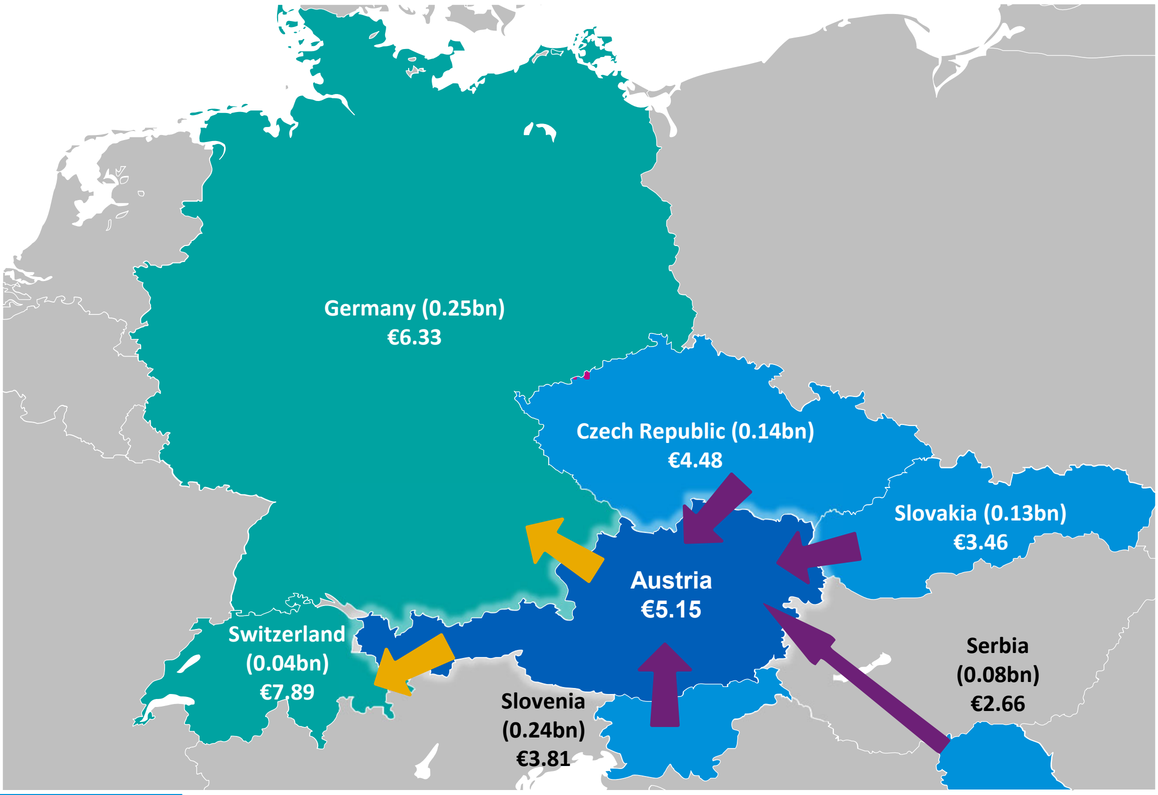
Austria

Key flows and C&C consumption patterns

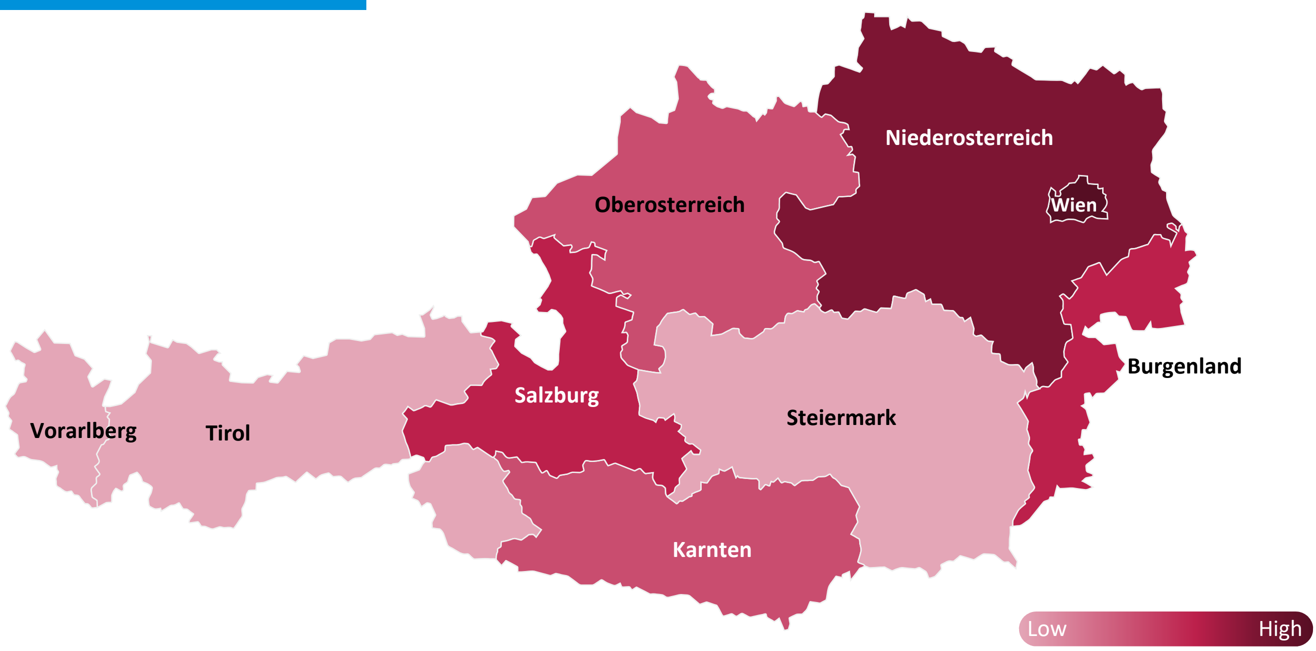
Key inflows and outflows[1](a)

Austria
Source
Destination
Inflow
Outflow

Label description:
Country (Inflow/ Outflow Volume)
WAP



C&C % by region[1](b)(c)



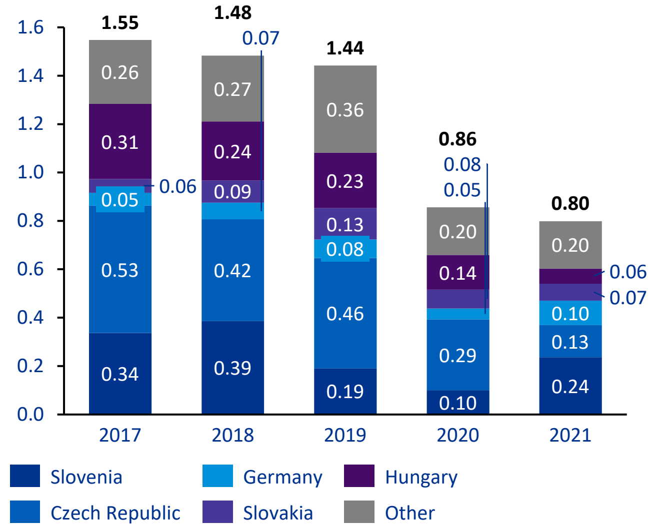
Note: (a) For countries with both inflows and outflows, only the larger of the two flows have been shown (b) C&C scale is relative to this market and is not comparable with other markets in the study, (c) Data not available for regions in grey

Source: (1) KPMG EU Flows Calculation 2021

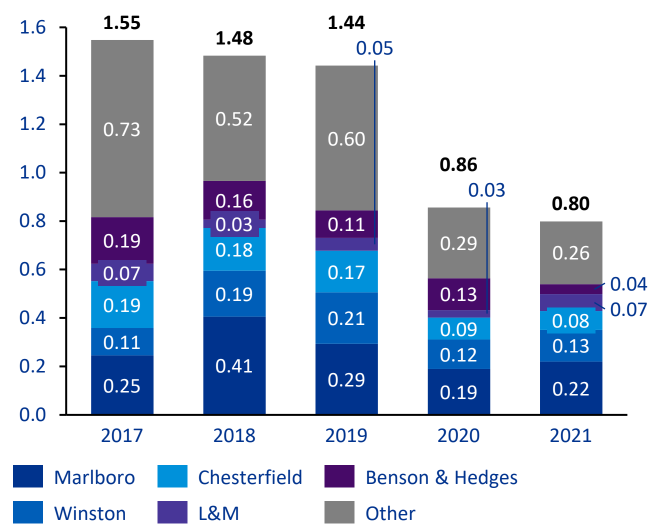
Austria

ND(L) and C&C flows

ND(L) by country of origin – 2017-2021 (bn cigarettes)(1)



ND(L) by brand – 2017-2021 (bn cigarettes) (1)

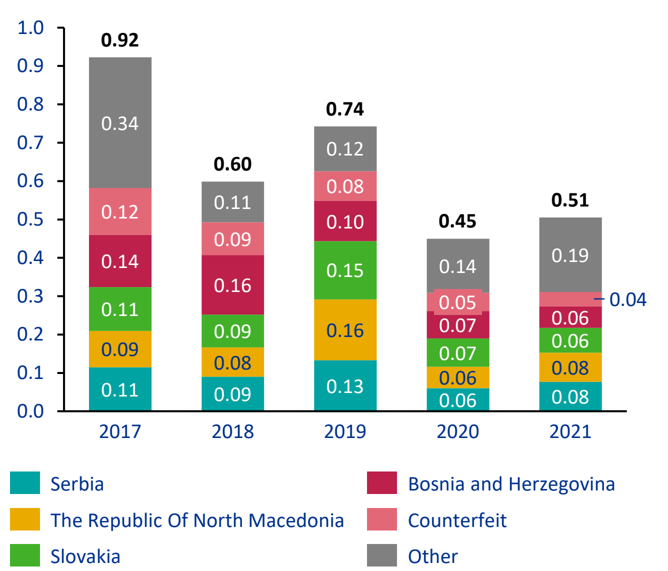


— Legal inflows (ND(L)) declined by 7%, due to a decline in flows from Hungary and Czech Republic, albeit partly offset by increased inflows from Slovenia

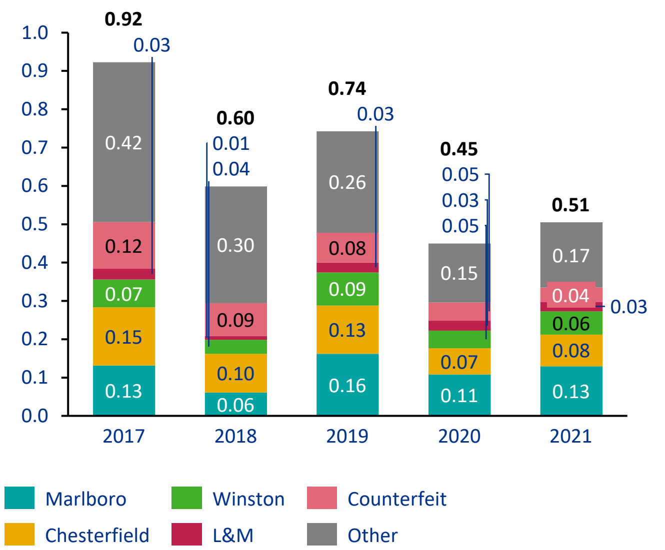
— Flows from the Czech Republic and Slovenia have been considered predominately legal, due to their proximity and the large numbers of cross-border workers and shoppers

— A 0.06bn increase in C&C was mainly driven by larger inflows from The Republic of North Macedonia, Serbia and countries within the 'Other' category

C&C by country of origin – 2017-2021 (bn cigarettes) (1)(a)



C&C by brand – 2017-2021 (bn cigarettes) (1)(a)



Note: (a) Only includes Counterfeit volumes related to brands of manufactures who participate in the empty pack/yellow bag surveys.
Source: (1) KPMG EU Flows Calculation, 2017-21;


KPMG
Belgium

Belgium

C&C cigarette consumption and total consumption

8.2bn

Cigarettes consumed

-0.60bn on 2020

0.4bn

C&C cigarettes consumed

-0.14bn on 2020

4.6%

Of total consumption was C&C

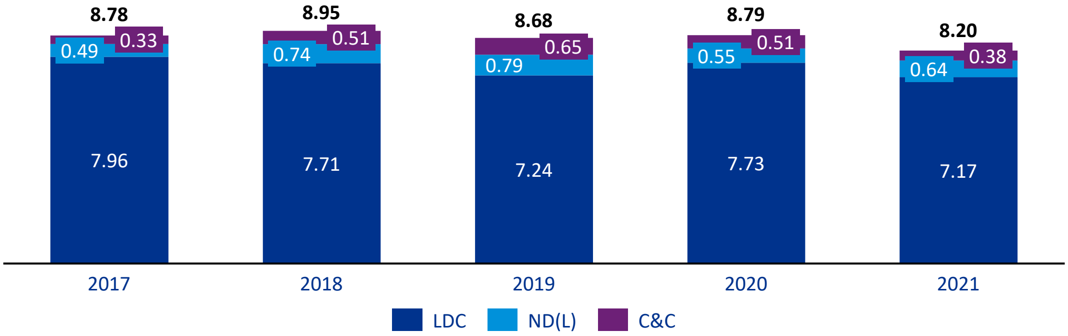
-1.22%pts on 2020

€100m

Total tax revenue lost from C&C

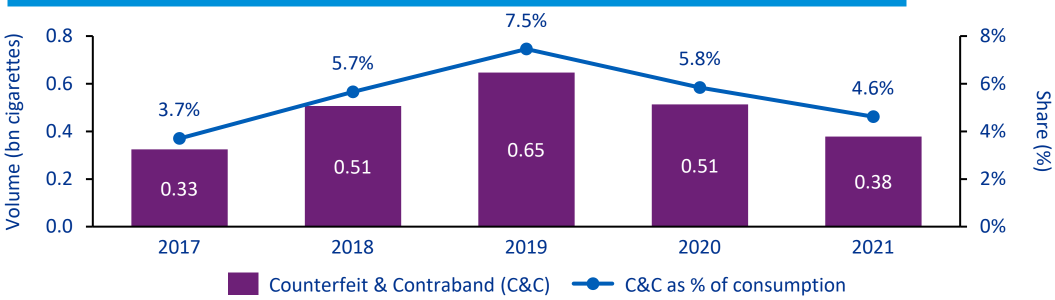
-€26m on 2020

Total consumption – 2017-2021 (bn cigarettes)(1)(2)

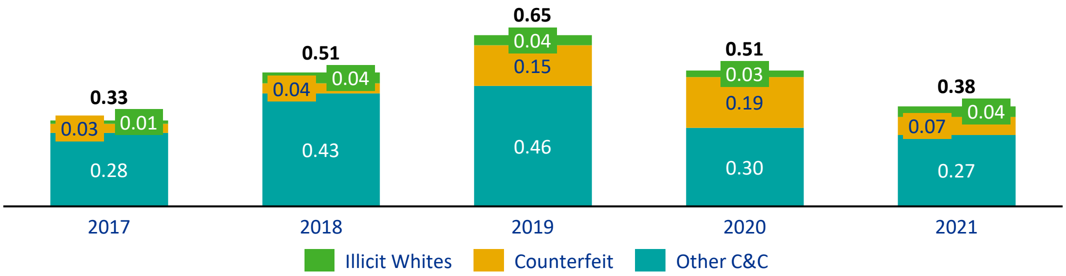


— C&C as a share of total cigarette consumption decreased by 1.2ppt to 4.6% in 2021, driven by a decline in Counterfeit and, to a lesser extent, Other C&C

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2017-2021(1)(2)



C&C consumption by type – 2017-2021 (bn cigarettes)(1)(2)(a)



Note: (a) C&C breakdown chart only includes Counterfeit volumes related to brands of manufactures who participate in the empty pack/yellow bag surveys; (b) Total tax revenue lost represents estimated excise and VAT if C&C volumes had been consumed legally in the country of study; (c) Due to rounding, segments highlighted in the charts may not add up to the total and year-on-year changes highlighted in the sidebar may differ from the charts

Source: (1) KPMG EU Flows Calculation, 2017-21; (2) In Market Sales data

Belgium

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2017-2021[1][2]

Total Belgium Consumption						
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**	**2020-21 (%)**
Legal Domestic Sales (LDS)	9.51	9.43	9.47	9.23	8.91	(3%)
Outflows	(1.55)	(1.72)	(2.23)	(1.50)	(1.74)	16%
Legal Domestic Consumption (LDC)	7.96	7.71	7.24	7.73	7.17	(7%)
Non-Domestic Legal (ND(L))	0.49	0.74	0.79	0.55	0.64	18%
Counterfeit and Contraband (C&C)	0.33	0.51	0.65	0.51	0.38	(26%)
Total Non-Domestic	0.82	1.24	1.44	1.06	1.02	(3%)
Total Consumption	**8.78**	**8.95**	**8.68**	**8.79**	**8.20**	**(7%)**

- Total consumption declined by 7% in 2021, as reduced legal domestic sales combined with increased outflows led to a decline in legal domestic consumption
- Non-domestic inflows to Belgium declined by 3% to 1.02bn cigarettes, with increasing inflows from Luxembourg more than offset by declines from other sources
- Outflows increased by 16% to 1.74bn cigarettes, with the Netherlands and France remaining the largest destinations

Total inflows by country of origin – 2017-2021[1][a]

Inflows to Belgium					
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**
Luxembourg	0.09	0.10	0.18	0.26	0.43
Bulgaria	0.06	0.09	0.20	0.21	0.18
Counterfeit	0.03	0.04	0.15	0.19	0.07
Romania	0.04	0.06	0.07	0.05	0.05
Netherlands	0.04	0.20	0.07	0.06	0.04
Other	0.55	0.76	0.76	0.29	0.25
Total Inflows	**0.82**	**1.24**	**1.44**	**1.06**	**1.02**

Total outflows by destination – 2017-2021[1][a]

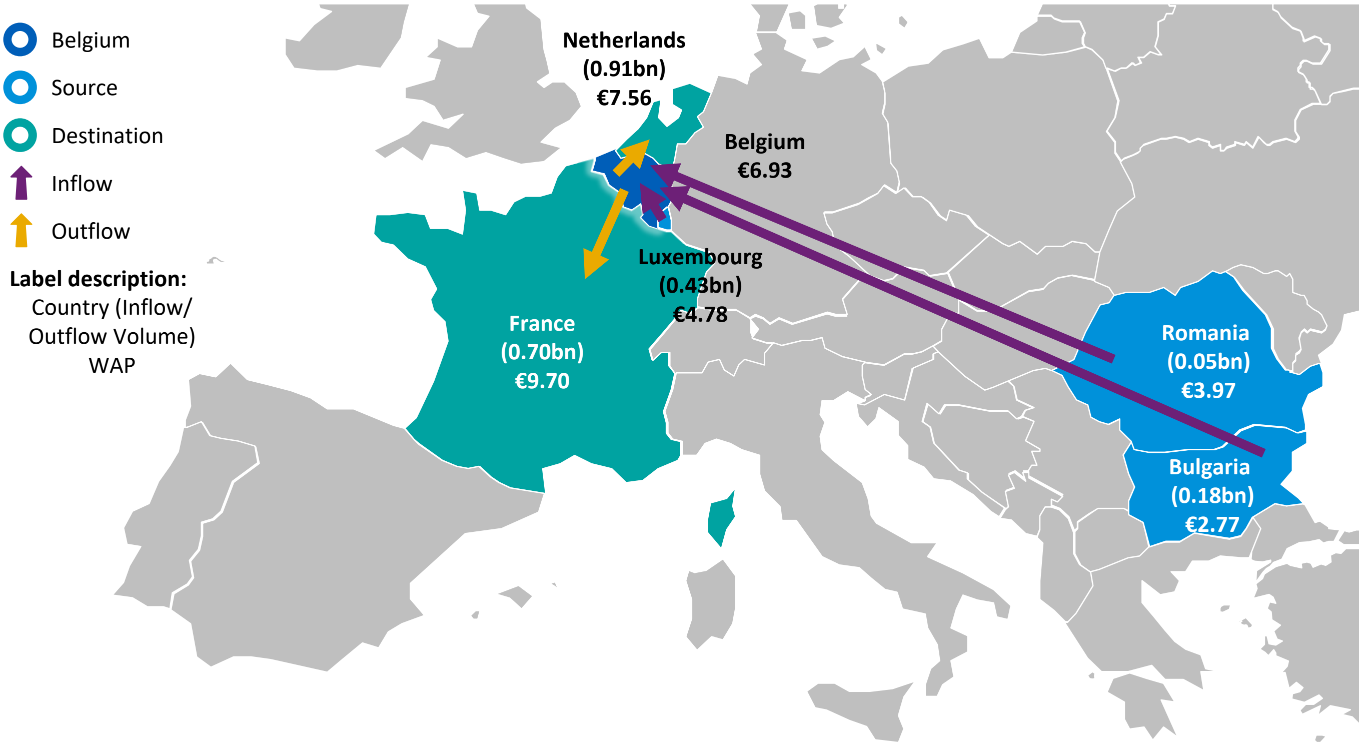
Outflows from Belgium					
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**
Netherlands	(0.15)	(0.18)	(0.21)	(0.34)	(0.91)
France	(1.28)	(1.42)	(1.89)	(1.05)	(0.70)
Other	(0.13)	(0.11)	(0.12)	(0.10)	(0.13)
Total Outflows	**(1.55)**	**(1.72)**	**(2.23)**	**(1.50)**	**(1.74)**

Note: (a) The inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows
Source: (1) KPMG EU Flows Calculation, 2017-21; (2) In Market Sales data;

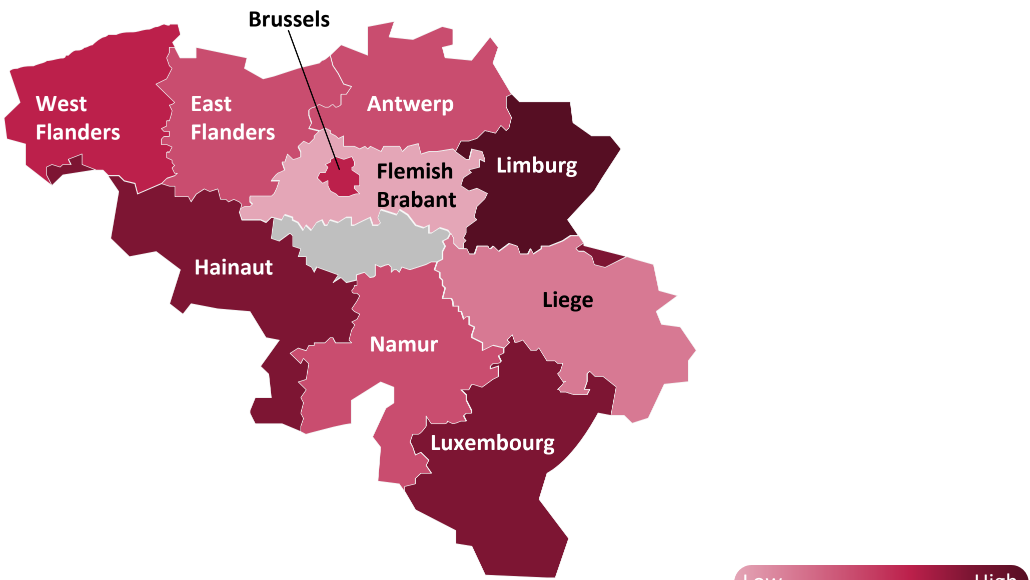
Belgium

Key flows and C&C consumption patterns

Key inflows and outflows[1][2][a][b]



C&C % by region[1][c][d]



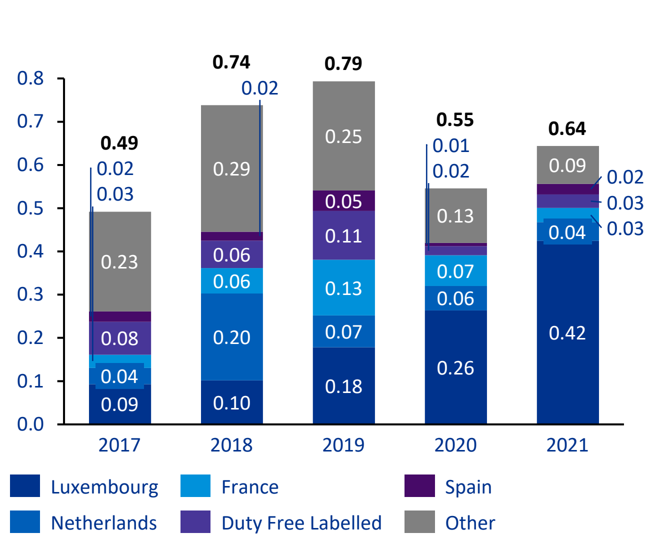
Note: (a) For countries with both inflows and outflows, only the larger of the two flows have been shown; (b) Belgium weighted average price (WAP) is for the full year 2021. This differs from the WAP used to estimate tax loss, which is from European Commission Excise Duty Tables available as of July 2021; (c) C&C scale is relative to this market and is not comparable with other markets in the study, (d) Data not available for regions in grey

Source: (1) KPMG EU Flows Calculation 2021; (2) Belgium WAP sourced from: European Commission, Taxes in Europe Database v3

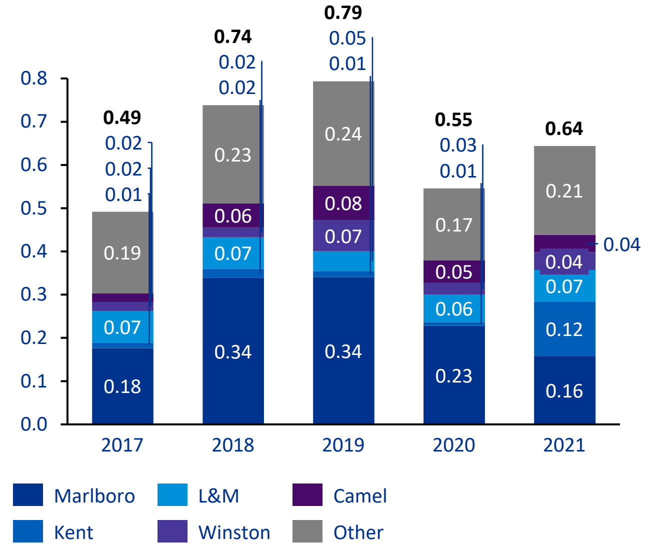
Belgium

ND(L) and C&C flows

ND(L) by country of origin – 2017-2021 (bn cigarettes)[1]



ND(L) by brand – 2017-2021 (bn cigarettes)[1]

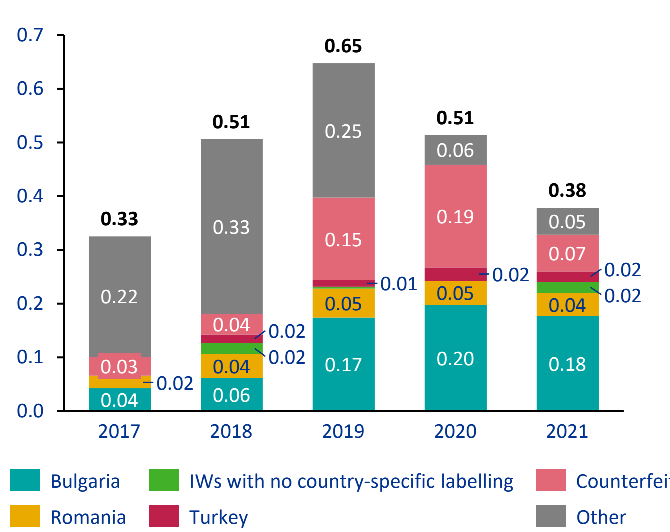


— Non-domestic legal (ND(L)) inflows increased by 18% in 2021, largely due to increased legal inflows from Luxembourg

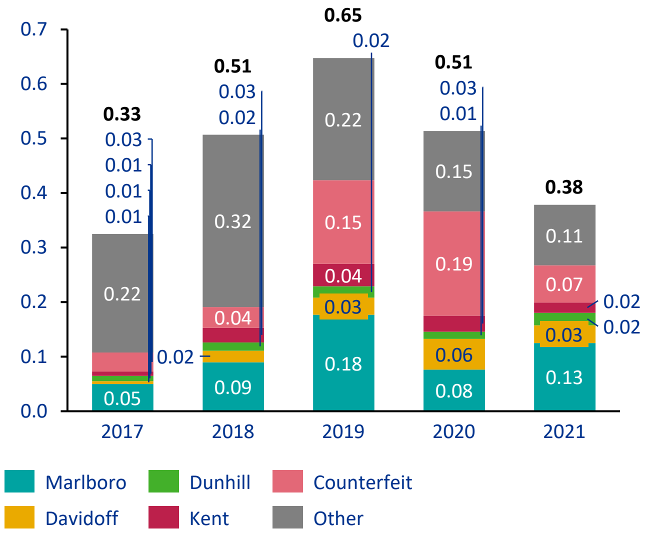
— The C&C decline in 2021 was primarily driven by lower Counterfeit inflows

— C&C incidence was highest in the Limburg region

C&C by country of origin – 2017-2021 (bn cigarettes)[1][a]



C&C by brand – 2017-2021 (bn cigarettes)[1][a]



Note: (a) Only includes Counterfeit volumes related to brands of manufactures who participate in the empty pack/yellow bag surveys.

Source: (1) KPMG EU Flows Calculation, 2017-21;

KPMG

Bulgaria

Bulgaria

13.4bn

Cigarettes consumed

-0.59bn on 2020

0.2bn

C&C cigarettes consumed

-0.01bn on 2020

1.6%

Of total consumption was C&C

-0.01%pts on 2020

€25m

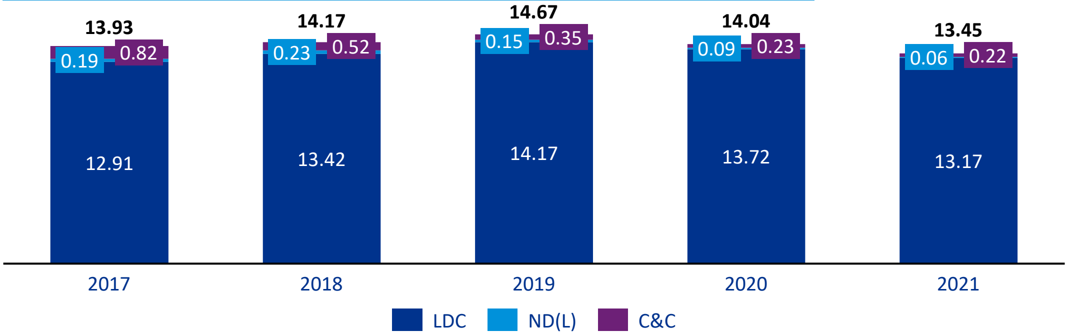
(BGN48m)[3]

Total tax revenue lost from C&C

-€1m on 2020

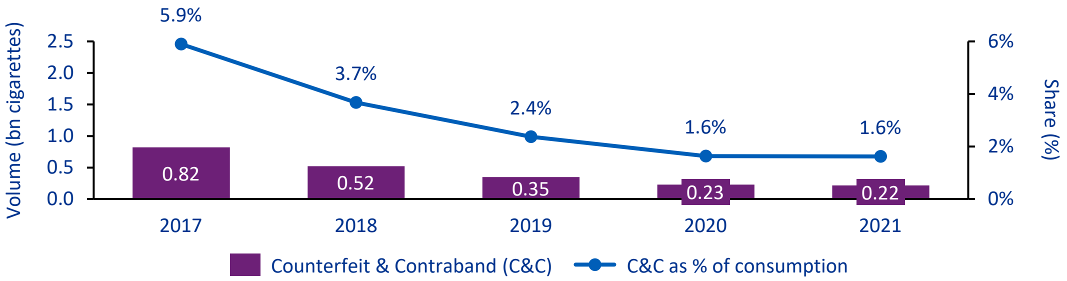
C&C cigarette consumption and total consumption

Total consumption – 2017-2021 (bn cigarettes)[(1)(2)]

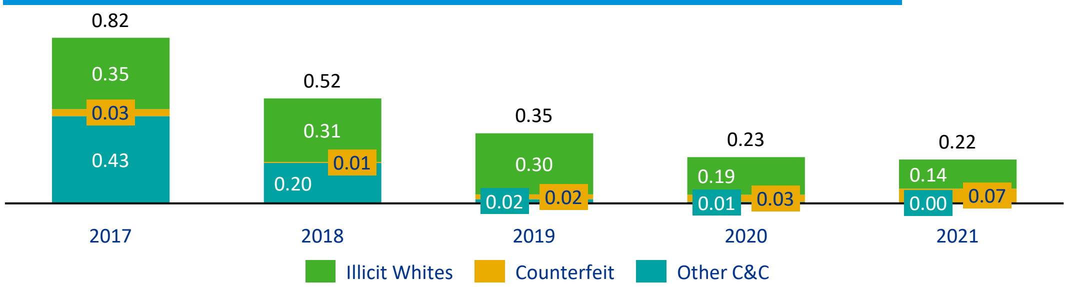


- The C&C share of total cigarette consumption remained stable in 2021 (c.1.6%)
- Illicit Whites were the largest category of illicit consumption, accounting for c.66% of C&C
- Counterfeit consumption more than doubled in 2021 albeit from a relatively small base

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2017-2021[(1)(2)]



C&C consumption by type – 2017-2021 (bn cigarettes)[(1)(2)(a)]



Note: (a) C&C breakdown chart only includes Counterfeit volumes related to brands of manufactures who participate in the empty pack/yellow bag surveys; (b)Total tax revenue lost represents estimated excise and VAT if C&C volumes had been consumed legally in the country of study (c) Bulgarian LDS has been calculated using customs data for 2020-21. For 2017-19, it is based on IMS data. In 2021, Bulgarian IMS was 15.112bn vs customs data of 15.2053bn ; (d) Due to rounding, segments highlighted in the charts may not add up to the total and year-on-year changes highlighted in the sidebar may differ from the charts

Source: (1) KPMG EU Flows Calculation, 2017-21; (2) In Market Sales data; (3) EUR 1 = лв1.956, InforEuro, European Commission, December 2021

KPMG

Bulgaria

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2017-2021[(1)(2)]

Total Bulgaria Consumption						
Billion cigarettes	2017	2018	2019	2020	2021	2020-21 (%)
Legal Domestic Sales (LDS)	13.71	14.34	15.31	14.77	15.21	3%
Outflows	(0.79)	(0.93)	(1.14)	(1.05)	(2.04)	94%
Legal Domestic Consumption (LDC)	12.91	13.42	14.17	13.72	13.17	(4%)
Non-Domestic Legal (ND(L))	0.19	0.23	0.15	0.09	0.06	(34%)
Counterfeit and Contraband (C&C)	0.82	0.52	0.35	0.23	0.22	(5%)
Total Non-Domestic	1.02	0.75	0.50	0.32	0.28	(13%)
Total Consumption	**13.93**	**14.17**	**14.67**	**14.04**	**13.45**	**(4%)**

- Total consumption declined by 4% in 2021, in line with the decline in Legal Domestic Consumption
- Illicit Whites with no country-specific labelling were the largest source of inflows
- Outflows increased by 0.98bn cigarettes in 2021, with the largest increases in outflows to the Netherlands (0.66bn) and France (0.21)

Total inflows by country of origin – 2017-2021[(1)(a)]

Inflows to Bulgaria					
Billion cigarettes	2017	2018	2019	2020	2021
IWs with no country-specific labelling	0.36	0.40	0.26	0.17	0.14
Counterfeit	0.03	0.01	0.02	0.03	0.07
Duty Free Labelled	0.37	0.16	0.07	0.06	0.03
Other	0.25	0.19	0.14	0.06	0.05
Total Inflows	**1.02**	**0.75**	**0.50**	**0.32**	**0.28**

Total outflows by destination – 2017-2021[(1)(a)]

Outflows from Bulgaria					
Billion cigarettes	2017	2018	2019	2020	2021
Netherlands	(0.04)	(0.05)	(0.05)	(0.10)	(0.76)
France	(0.22)	(0.28)	(0.26)	(0.25)	(0.46)
Germany	(0.14)	(0.14)	(0.18)	(0.21)	(0.25)
Belgium	(0.06)	(0.09)	(0.20)	(0.21)	(0.18)
Other	(0.33)	(0.37)	(0.44)	(0.28)	(0.38)
Total Outflows	**(0.79)**	**(0.93)**	**(1.14)**	**(1.05)**	**(2.04)**

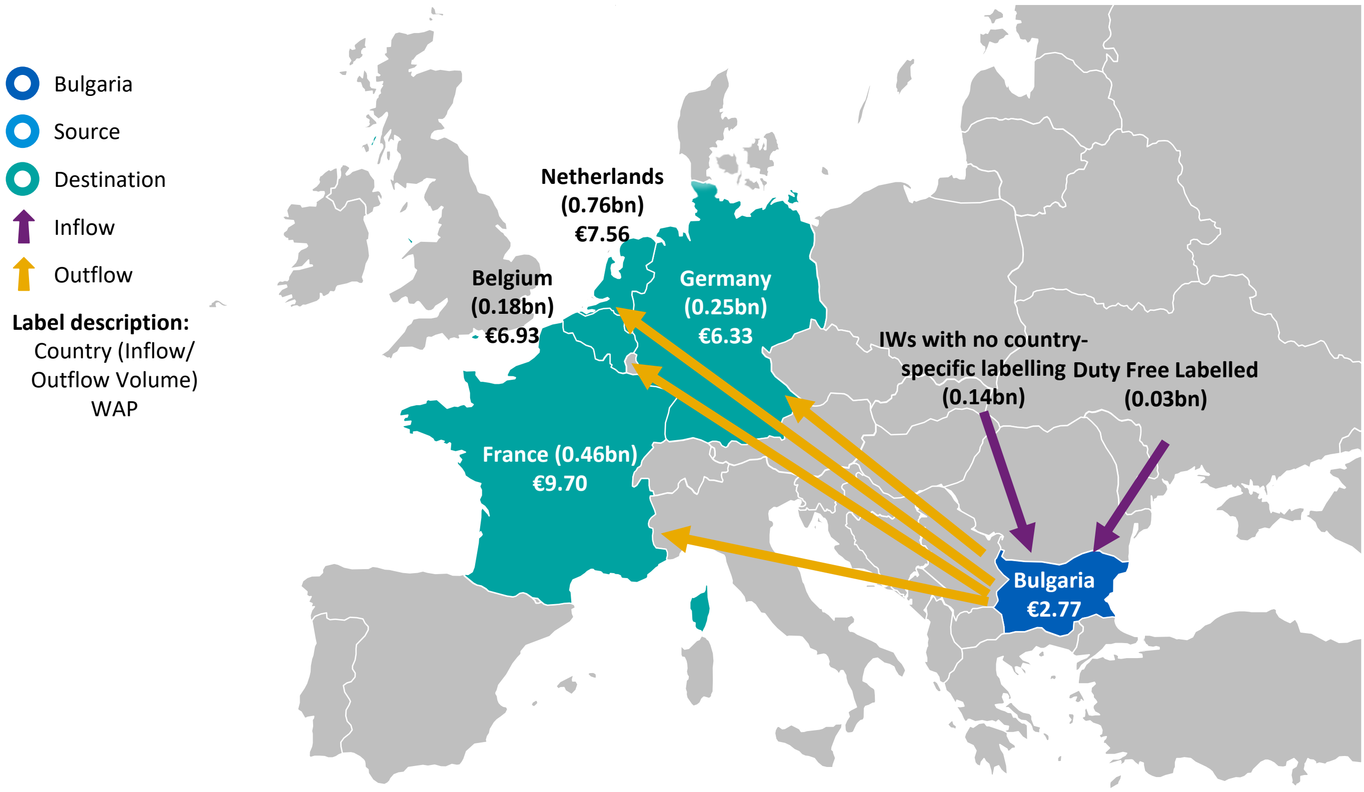
Note: (a) The inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows

Source: (1) KPMG EU Flows Calculation, 2017-21; (2) In Market Sales data;

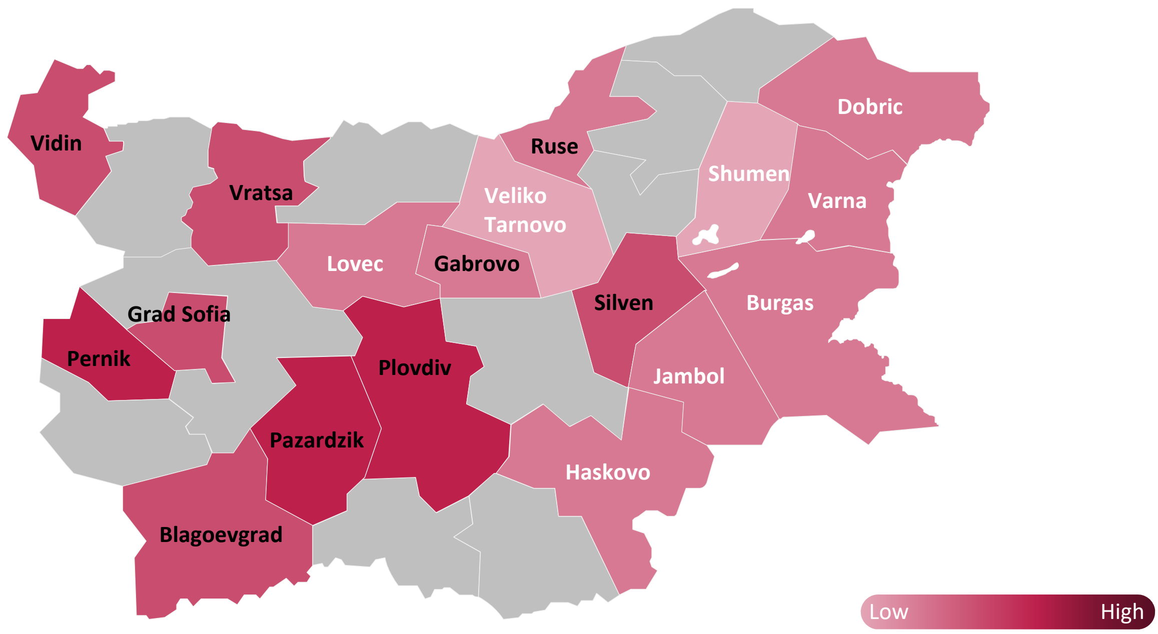
Bulgaria

Key flows and C&C consumption patterns

Key inflows and outflows[(1)(a)]



C&C % by region[(1)(b)(c)]



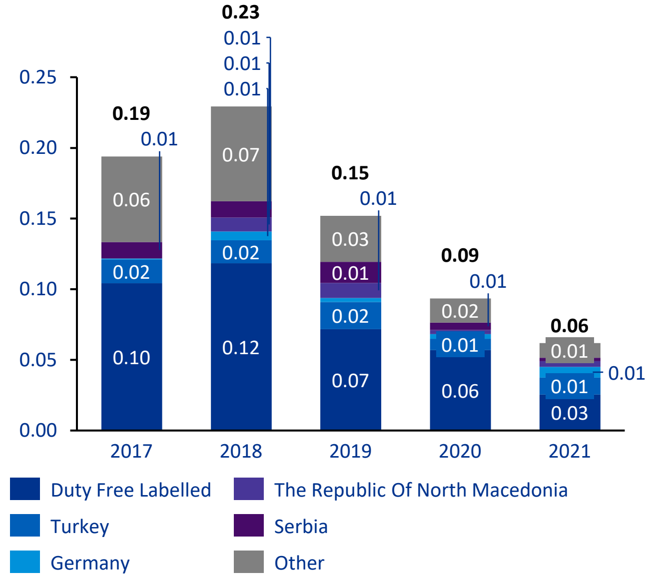
Note: (a) For countries with both inflows and outflows, only the larger of the two flows have been shown (b) C&C scale is relative to this market and is not comparable with other markets in the study, (c) Data not available for regions in grey

Source: (1) KPMG EU Flows Calculation 2021

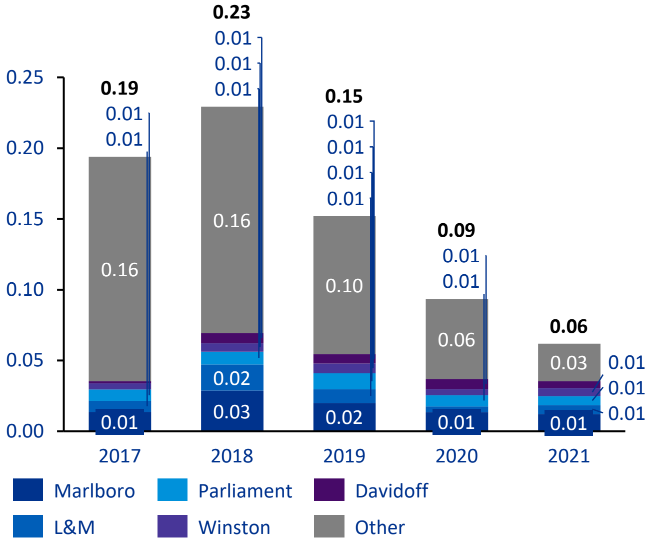
Bulgaria

ND(L) and C&C flows

ND(L) by country of origin – 2017-2021 (bn cigarettes)(1)

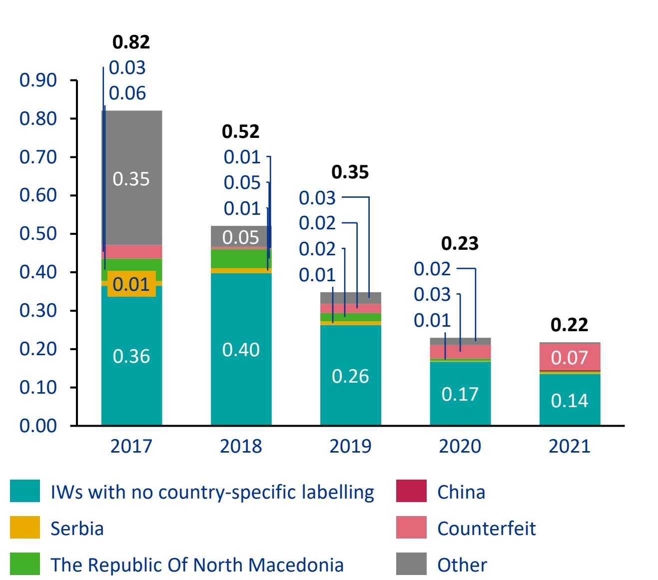


ND(L) by brand – 2017-2021 (bn cigarettes)(1)

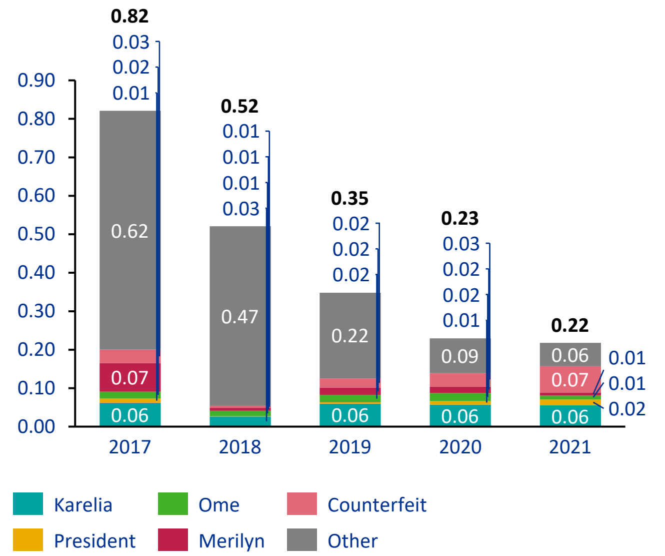


- The ND(L) inflow decline in 2021 was primarily due to lower inflows of Duty Free Labelled product
- C&C consumption in 2021 was similar to 2020, albeit with a decline in Illicit Whites with no country specific labelling offset by an increase in Counterfeit

C&C by country of origin – 2017-2021 (bn cigarettes)(1)(a)



C&C by brand – 2017-2021 (bn cigarettes)(1)(a)



Note: (a) Bulgarian LDS has been calculated using customs data for 2020-21. For 2017-19, it is based on IMS data. In 2021, Bulgarian IMS was 15.112bn vs customs data of 15.2053bn; (b) Only includes Counterfeit volumes related to brands of manufacturers who participate in the empty pack/yellow bag surveys

Source: (1) KPMG EU Flows Calculation, 2017-21;

Croatia

Croatia

C&C cigarette consumption and total consumption

5.8bn

Cigarettes consumed

+0.01bn on 2020

0.3bn

C&C cigarettes consumed

-0.04bn on 2020

6.0%

Of total consumption was C&C

-0.65%pts on 2020

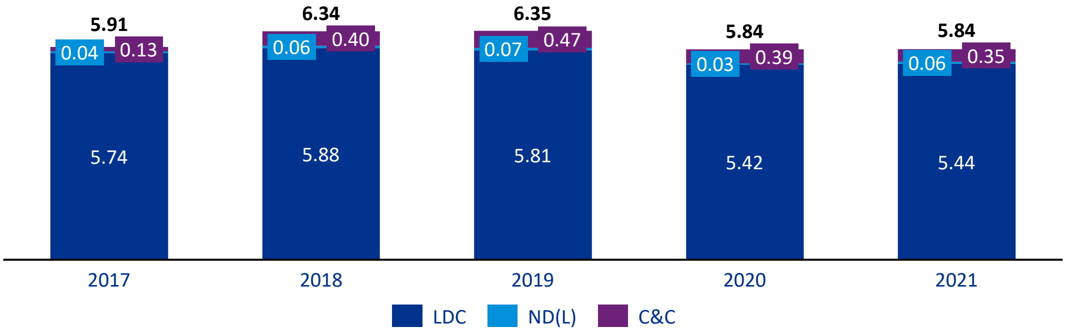
€54m

(kn403m)[3]

Total tax revenue lost from C&C

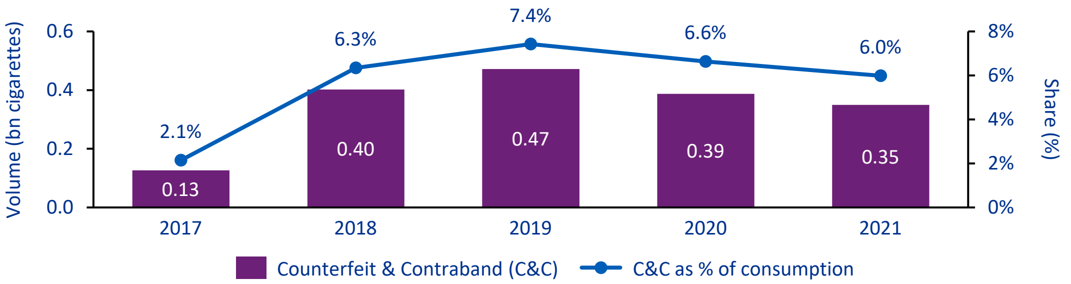
-€3m on 2020

Total consumption – 2017-2021 (bn cigarettes)[(1)(2)]

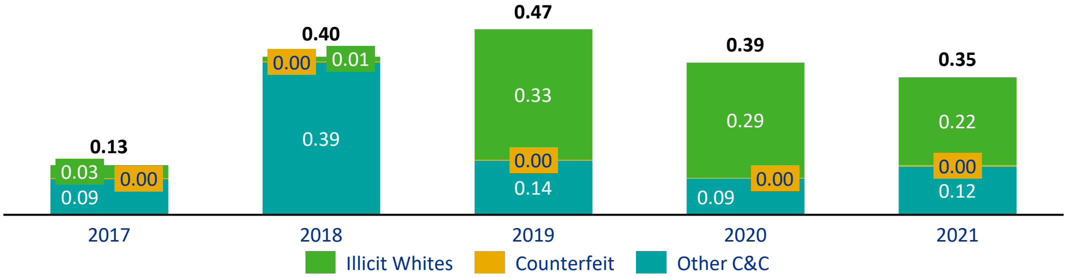


— C&C as a share of total consumption declined by 0.6ppt in 2021 to 6.0%, driven by a decline in Illicit Whites that was partly offset by an increase in Other C&C

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2017-2021[(1)(2)]



C&C consumption by type – 2017-2021 (bn cigarettes)[(1)(2)(a)]



Note: (a) C&C breakdown chart only includes Counterfeit volumes related to brands of manufactures who participate in the empty pack/yellow bag surveys; (b)Total tax revenue lost represents estimated excise and VAT if C&C volumes had been consumed legally in the country of study; (c) Due to rounding, segments highlighted in the charts may not add up to the total and year-on-year changes highlighted in the sidebar may differ from the charts

Source: (1) KPMG EU Flows Calculation, 2017-21; (2) In Market Sales data; (3) EUR 1 = kn 7.529, InforEuro, European Commission, December 2021

KPMG

Croatia

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2017-2021[1][2]

Total Croatia Consumption						
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**	**2020-21 (%)**
Legal Domestic Sales (LDS)	6.07	6.27	6.22	5.69	5.74	1%
Outflows	(0.33)	(0.39)	(0.40)	(0.26)	(0.30)	13%
Legal Domestic Consumption (LDC)	5.74	5.88	5.81	5.42	5.44	0%
Non-Domestic Legal (ND(L))	0.04	0.06	0.07	0.03	0.06	84%
Counterfeit and Contraband (C&C)	0.13	0.40	0.47	0.39	0.35	(10%)
Total Non-Domestic	0.17	0.47	0.54	0.42	0.41	(3%)
Total Consumption	**5.91**	**6.34**	**6.35**	**5.84**	**5.84**	**0%**

- Total cigarette consumption remained stable in 2021
- Illicit Whites with no country-specific labelling remained the largest source of inflows but declined in volume, offset by increases from other sources
- Outflows increased by 0.04bn (13%) against a backdrop of reduced travel restrictions, but still remained below pre 2020 levels

Total inflows by country of origin – 2017-2021[1][a]

Inflows to Croatia					
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**
IWs with no country-specific labelling	0.03	0.02	0.32	0.29	0.20
Bosnia And Herzegovina	0.06	0.27	0.10	0.06	0.09
Other	0.07	0.17	0.12	0.07	0.11
Total Inflows	**0.17**	**0.47**	**0.54**	**0.42**	**0.41**

Total outflows by destination – 2017-2021[1][a]

Outflows from Croatia					
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**
Germany	(0.15)	(0.16)	(0.18)	(0.16)	(0.13)
Slovenia	(0.04)	(0.07)	(0.06)	(0.02)	(0.06)
Austria	(0.04)	(0.03)	(0.03)	(0.02)	(0.03)
Italy	(0.02)	(0.04)	(0.02)	0.00	(0.02)
Other	(0.09)	(0.09)	(0.10)	(0.07)	(0.06)
Total Outflows	**(0.33)**	**(0.39)**	**(0.40)**	**(0.26)**	**(0.30)**

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

Source: (1) KPMG EU Flows Calculation, 2017-21; (2) In Market Sales data;

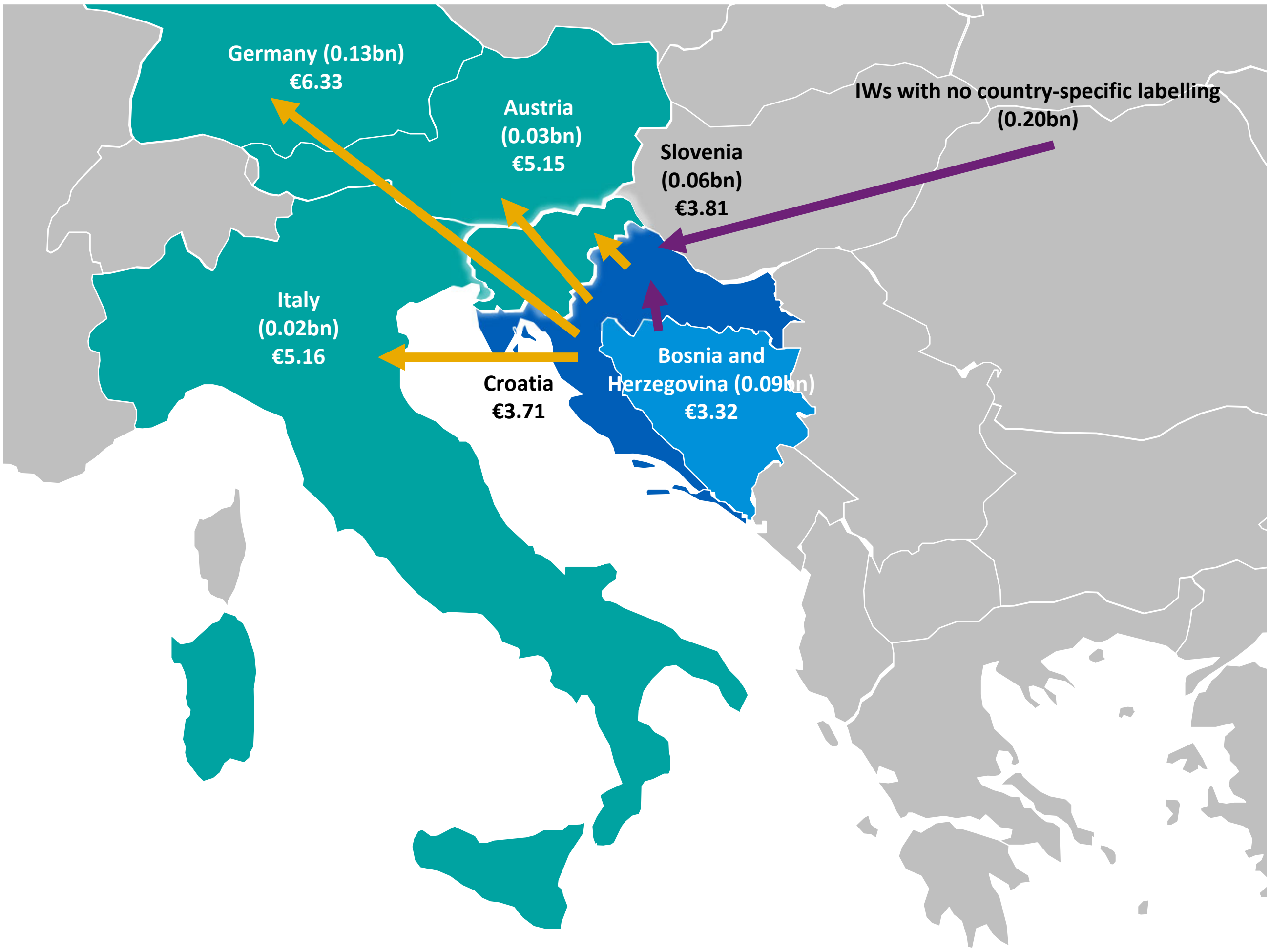
Croatia

Key flows

Key inflows and outflows[1](a)

Croatia
Source
Destination
Inflow
Outflow

Label description:
Country (Inflow/
Outflow Volume)
WAP

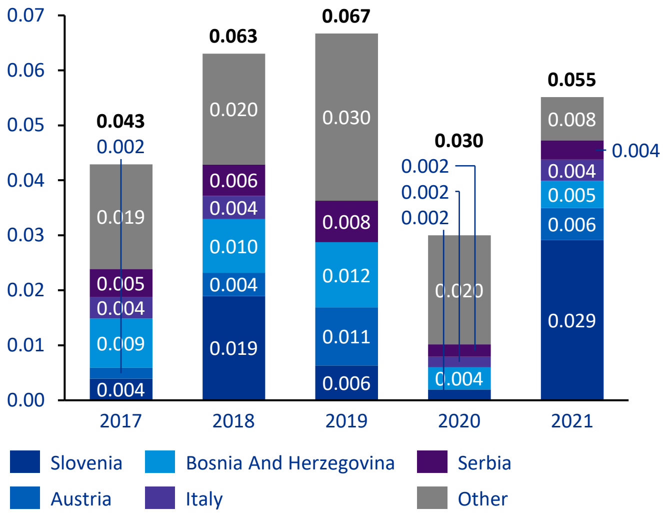


Note: (a) For countries with both inflows and outflows, only the larger of the two flows have been shown
Source: (1) KPMG EU Flows Calculation 2021

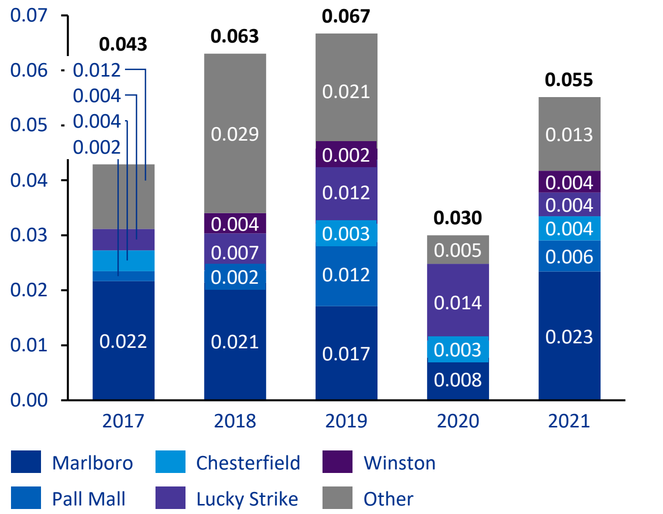
Croatia

ND(L) and C&C flows

ND(L) by country of origin – 2017-2021 (bn cigarettes)[1]



ND(L) by brand – 2017-2021 (bn cigarettes)[1]



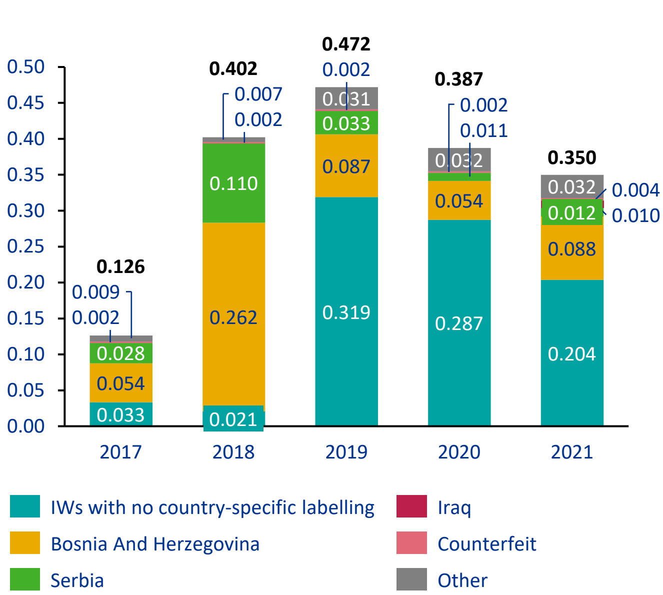
— ND(L) inflows increased in 2021 to return to levels more similar to the pre-pandemic period

— Neighbouring Slovenia accounted for approximately half of legal inflows

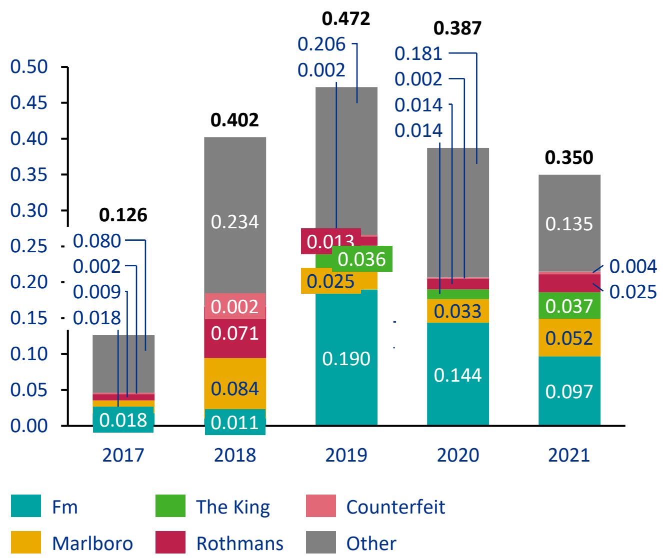
— Illicit Whites with no-country specific labelling declined by c.0.08bn cigarettes, and were the main contributor to the overall decline in C&C

— Illicit Whites with no-country specific labelling accounted for c.58% of C&C in 2021 (c.74% in 2020)

C&C by country of origin – 2017-2021 (bn cigarettes)[1][a]



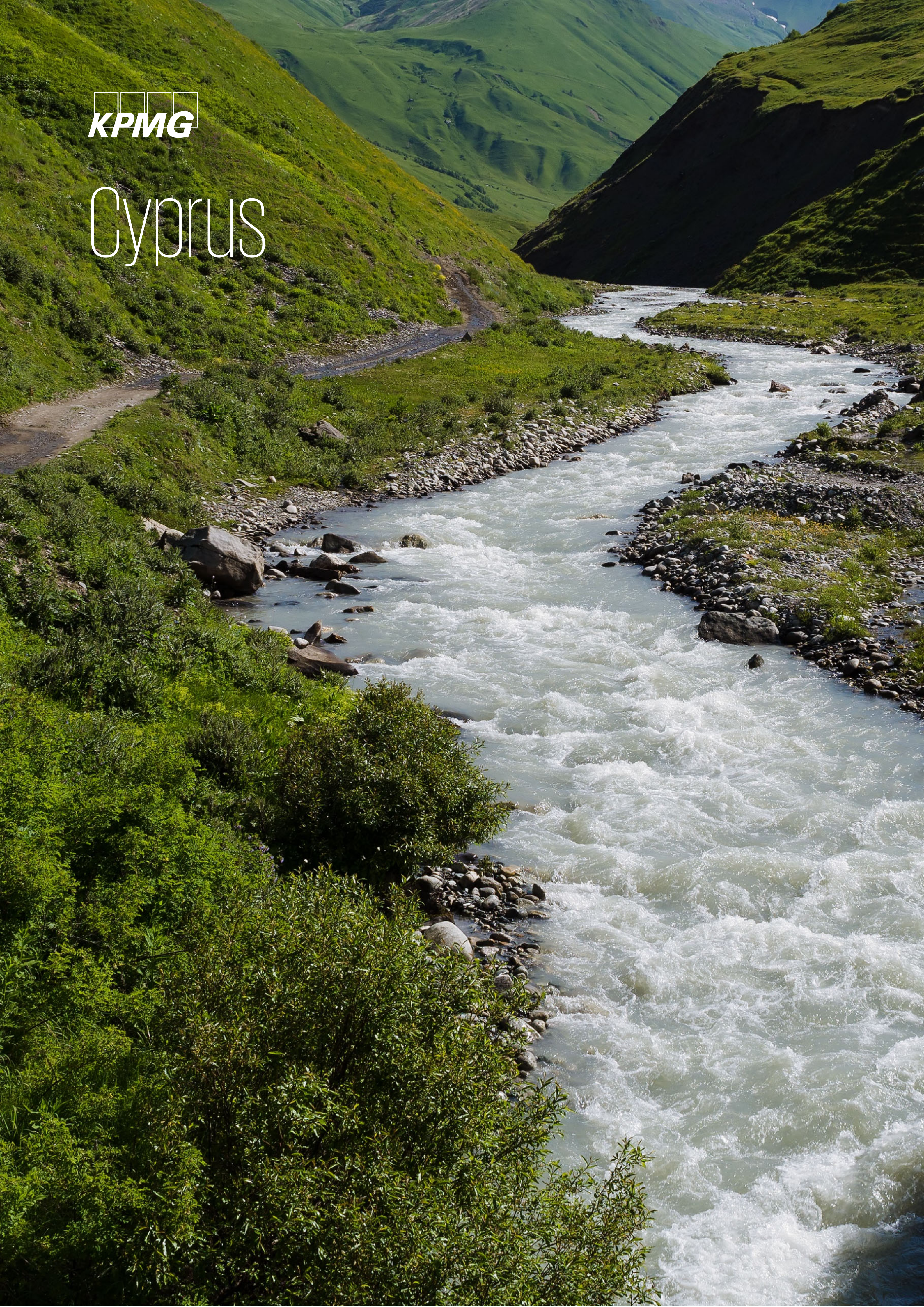
C&C by brand – 2017-2021 (bn cigarettes)[1][a]



Note: (a) Only includes Counterfeit volumes related to brands of manufactures who participate in the empty pack/yellow bag surveys.

Source: (1) KPMG EU Flows Calculation, 2017-21;

Cyprus



Cyprus

C&C cigarette consumption and total consumption

1.0bn

Cigarettes consumed

+0.05bn on 2020

0.1bn

C&C cigarettes consumed

+0.06bn on 2020

14.4%

Of total consumption was C&C

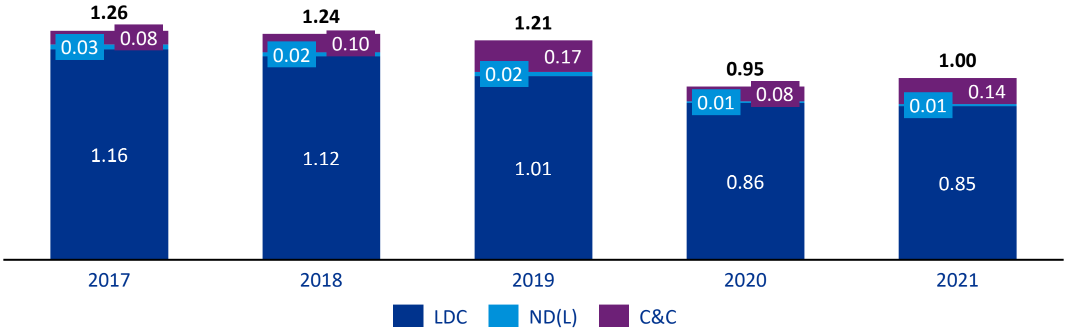
+5.80%pts on 2020

€24m

Total tax revenue lost from C&C

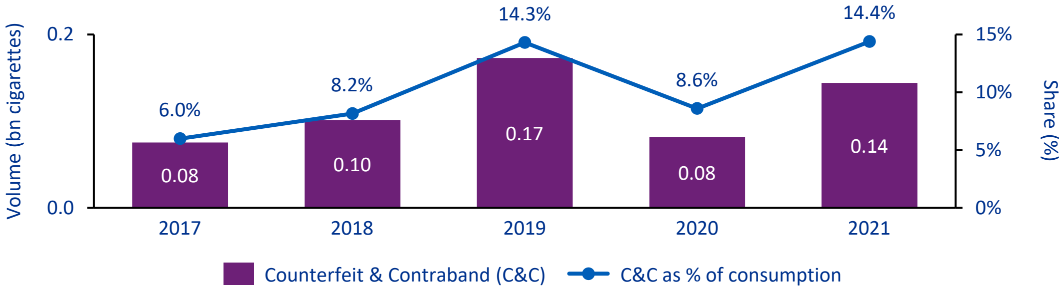
+€10m on 2020

Total consumption – 2017-2021 (bn cigarettes)(1)(2)

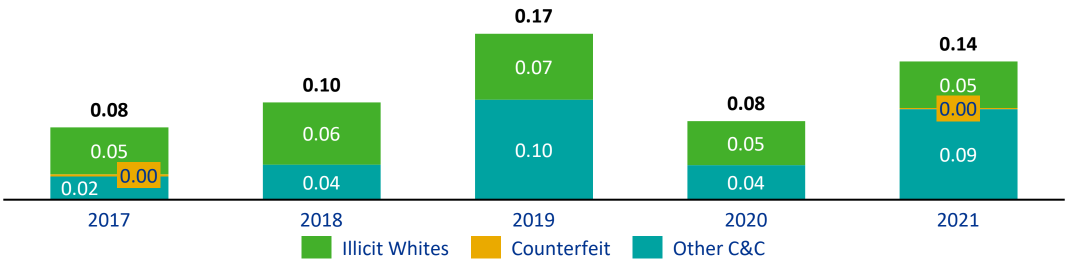


- C&C accounted for 14.4% of total cigarette consumption in 2021, a similar level to that seen in 2019
- This was driven by an increase in Other C&C which also returned to levels close to those experienced in 2019

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2017-2021(1)(2)



C&C consumption by type – 2017-2021 (bn cigarettes)(1)(2)(a)(c)



Note: (a) C&C breakdown chart only includes Counterfeit volumes related to brands of manufactures who participate in the empty pack/yellow bag surveys; (b) Total tax revenue lost represents estimated excise and VAT if C&C volumes had been consumed legally in the country of study ; (c) Due to rounding, segments highlighted in the charts may not add up to the total and year-on-year changes highlighted in the sidebar may differ from the charts

Source: (1) KPMG EU Flows Calculation, 2017-21; (2) In Market Sales data

Cyprus

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2017-2021[1][2]

Total Cyprus Consumption						
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**	**2020-21 (%)**
Legal Domestic Sales (LDS)	1.22	1.14	1.06	0.91	0.86	(5%)
Outflows	(0.06)	(0.02)	(0.04)	(0.04)	(0.02)	(59%)
Legal Domestic Consumption (LDC)	1.16	1.12	1.01	0.86	0.85	(2%)
Non-Domestic Legal (ND(L))	0.03	0.02	0.02	0.01	0.01	48%
Counterfeit and Contraband (C&C)	0.08	0.10	0.17	0.08	0.14	76%
Total Non-Domestic	0.10	0.12	0.20	0.09	0.16	73%
Total Consumption	**1.26**	**1.24**	**1.21**	**0.95**	**1.00**	**5%**

- Total consumption increased by 5% in 2021 driven by increased non-domestic inflows. However, total consumption still remained below pre 2020 levels
- Inflows increased by 0.07bn, against a backdrop of reduced travel restrictions and the reopening of crossing points with Northern Cyprus, with inflows from all sources returning to similar levels as that seen in 2019
- Outflows declined by 59% to 0.02bn

Total inflows by country of origin – 2017-2021[1][a]

Inflows to Cyprus					
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**
Northern Cyprus	0.01	0.03	0.07	0.02	0.06
IWs with no country-specific labelling	0.05	0.06	0.06	0.04	0.05
Duty Free Labelled	0.02	0.01	0.05	0.01	0.04
Other	0.03	0.01	0.01	0.01	0.01
Total Inflows	**0.10**	**0.12**	**0.20**	**0.09**	**0.16**

Total outflows by destination – 2017-2021[1][a]

Outflows from Cyprus					
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**
Greece	(0.01)	(0.00)	0.00	(0.00)	(0.01)
Other	(0.05)	(0.02)	(0.04)	(0.04)	(0.01)
Total Outflows	**(0.06)**	**(0.02)**	**(0.04)**	**(0.04)**	**(0.02)**

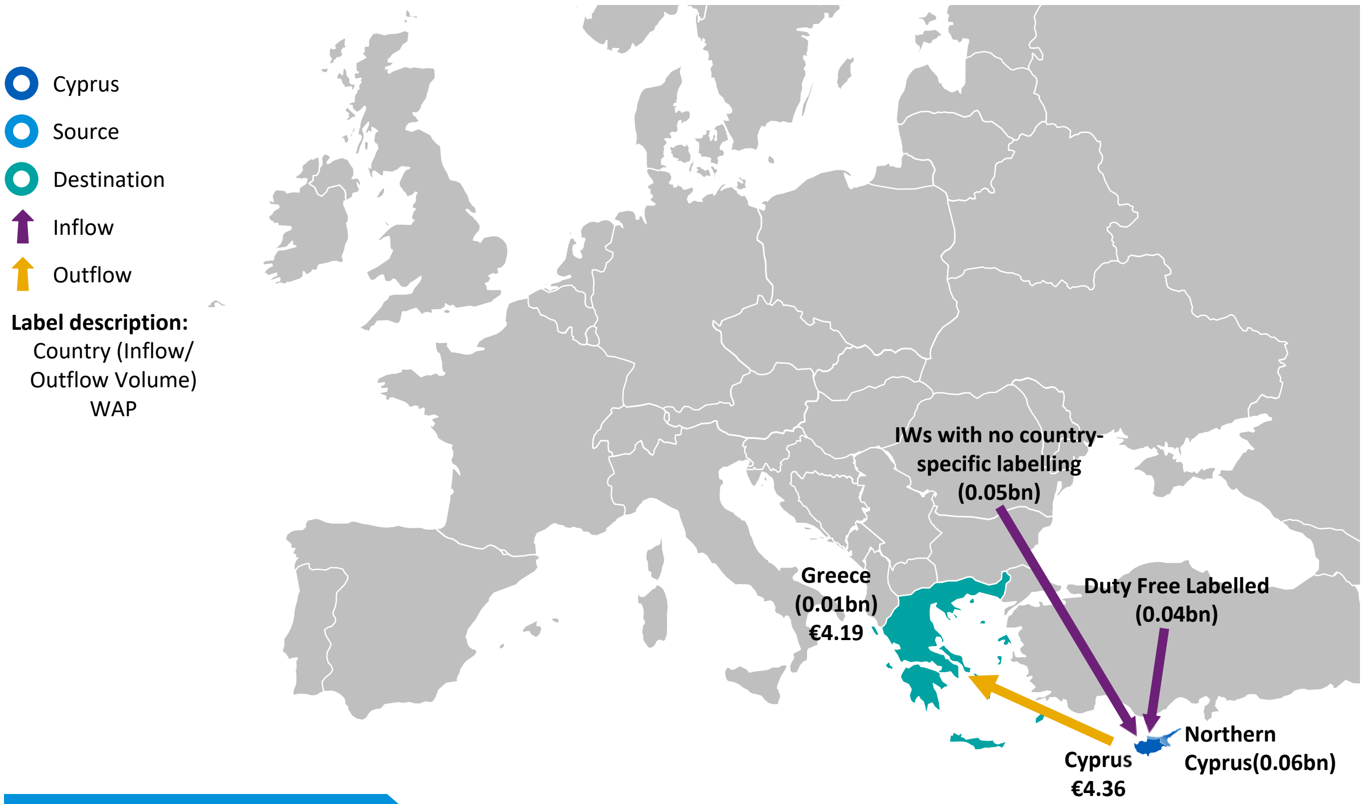
Note: (a) The inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows

Source: (1) KPMG EU Flows Calculation, 2017-21; (2) In Market Sales data;

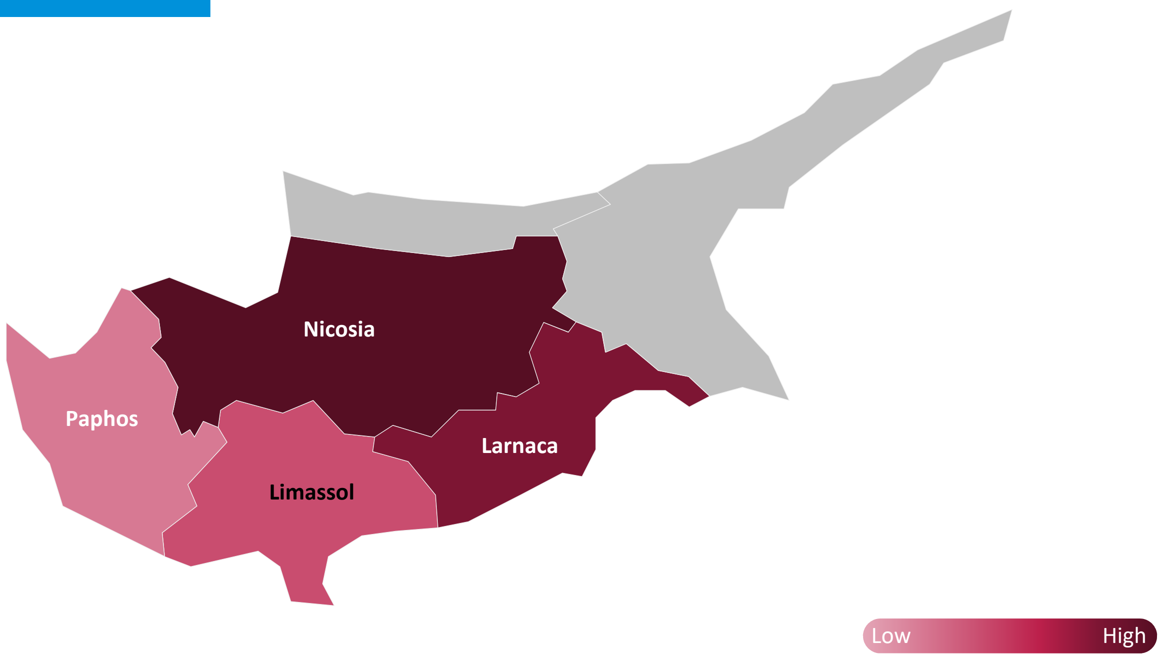
Cyprus

Key flows and C&C consumption patterns

Key inflows and outflows[(1)(a)]



C&C % by region[(1)(b)(c)]



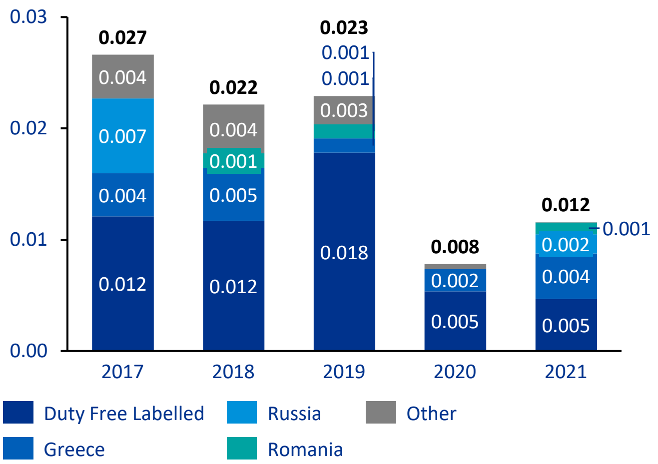
Note: (a) For countries with both inflows and outflows, only the larger of the two flows have been shown (b) C&C scale is relative to this market and is not comparable with other markets in the study, (c) Data not available for regions in grey

Source: (1) KPMG EU Flows Calculation 2021

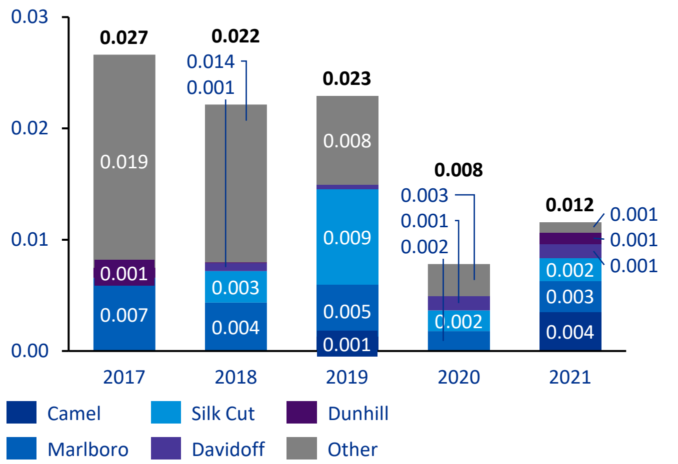
Cyprus

ND(L) and C&C flows

ND(L) by country of origin – 2017-2021 (bn cigarettes)[1]



ND(L) by brand – 2017-2021 (bn cigarettes)[1]

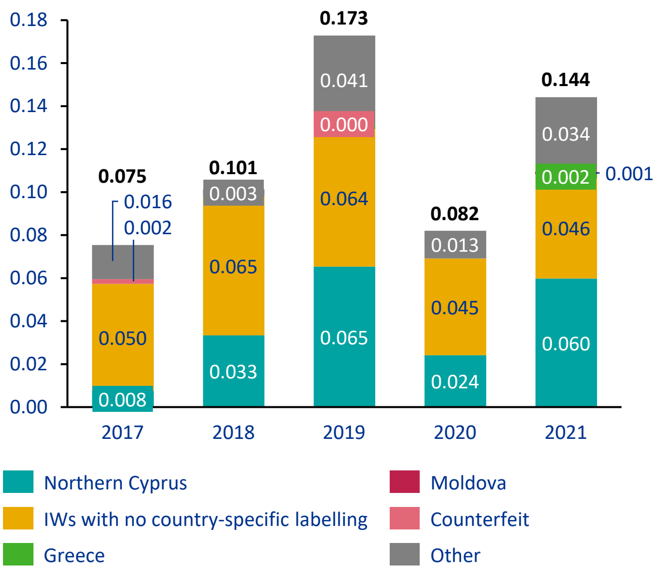


— Non-domestic legal (ND(L)) inflows increased by 48%, but remained below 2019 levels

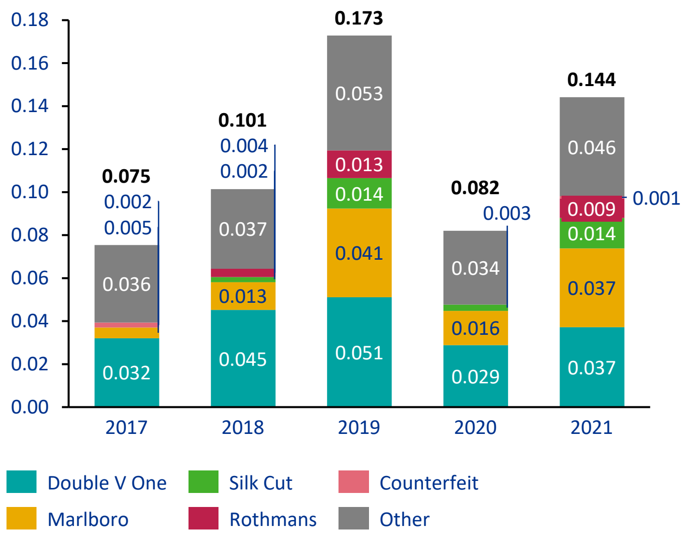
— The 2021 C&C increase was primarily driven by illicit flows from Northern Cyprus

— Inflows of Illicit Whites with no country-specific labelling remained at 2020 levels

C&C by country of origin – 2017-2021 (bn cigarettes)[1](a)



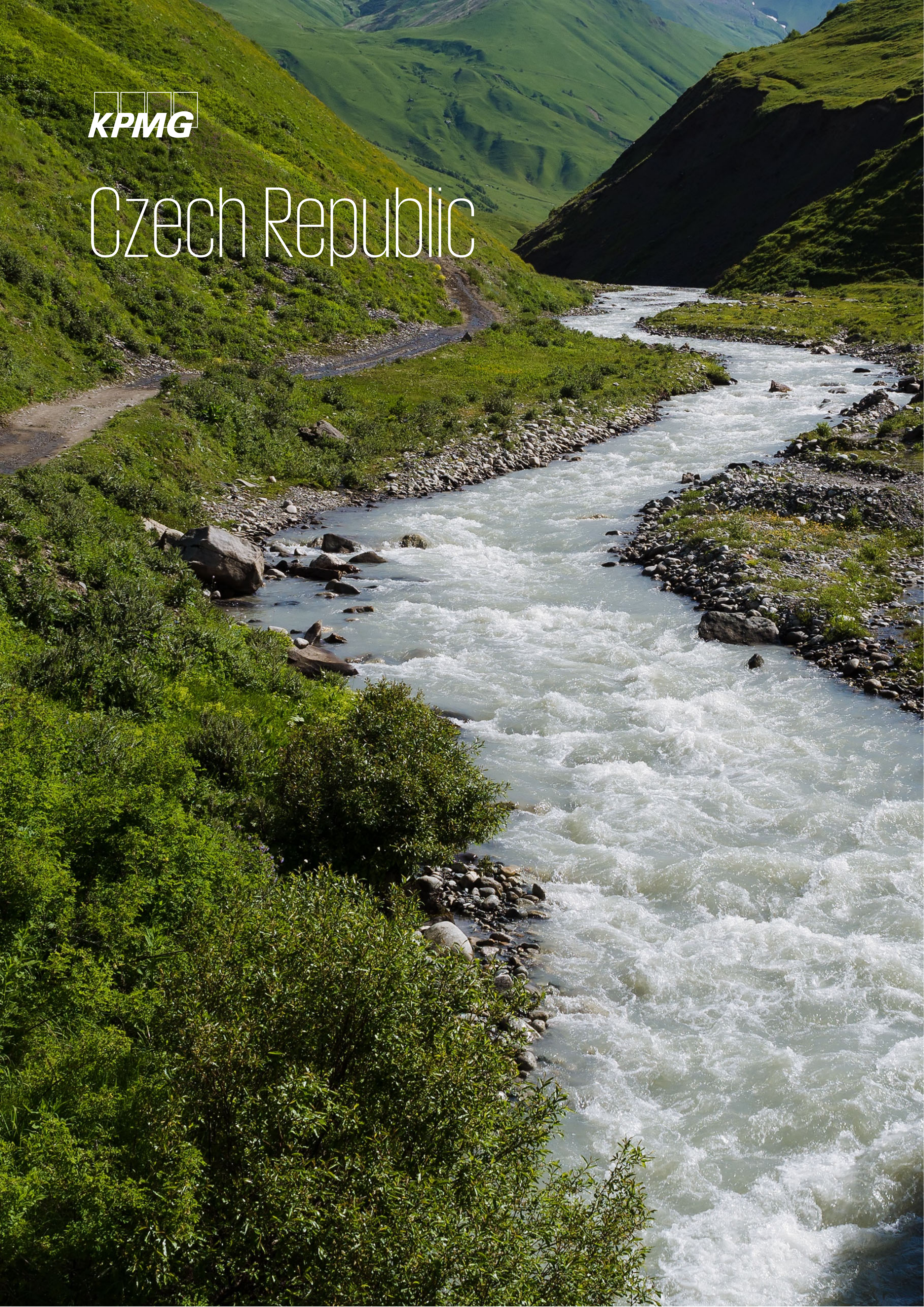
C&C by brand – 2017-2021 (bn cigarettes)[1](a)



Note: (a) Only includes Counterfeit volumes related to brands of manufactures who participate in the empty pack/yellow bag surveys.

Source: (1) KPMG EU Flows Calculation, 2017-21;

Czech Republic



Czech Republic

C&C cigarette consumption and total consumption

13.7bn

Cigarettes consumed

+0.50bn on 2020

0.5bn

C&C cigarettes consumed

+0.23bn on 2020

3.5%

Of total consumption was C&C

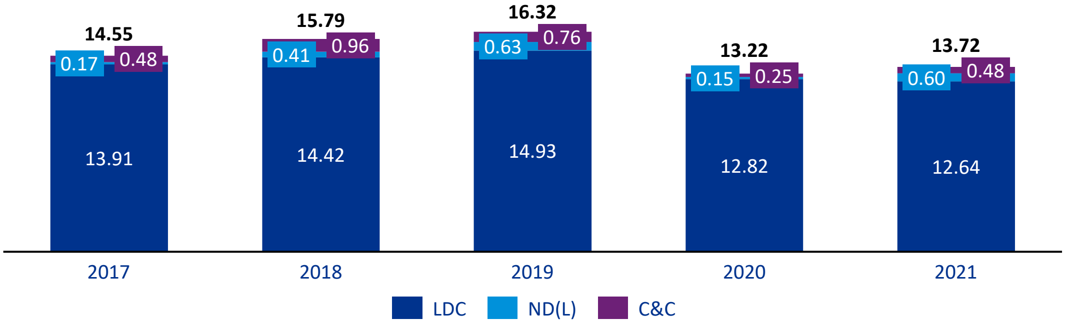
+1.58%pts on 2020

€75m

Total tax revenue lost from C&C

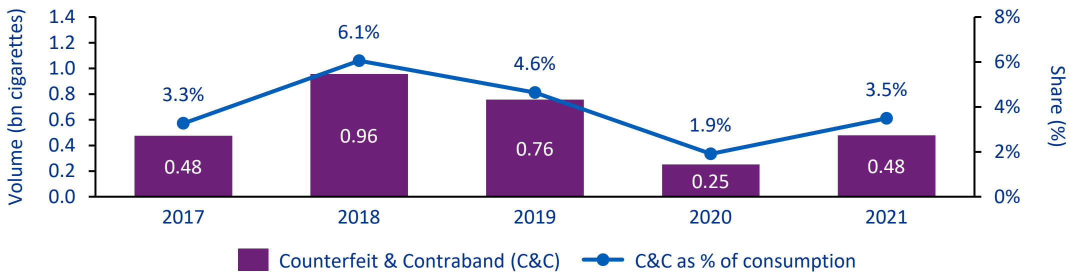
+€38m on 2020

Total consumption – 2017-2021 (bn cigarettes)(1)(2)

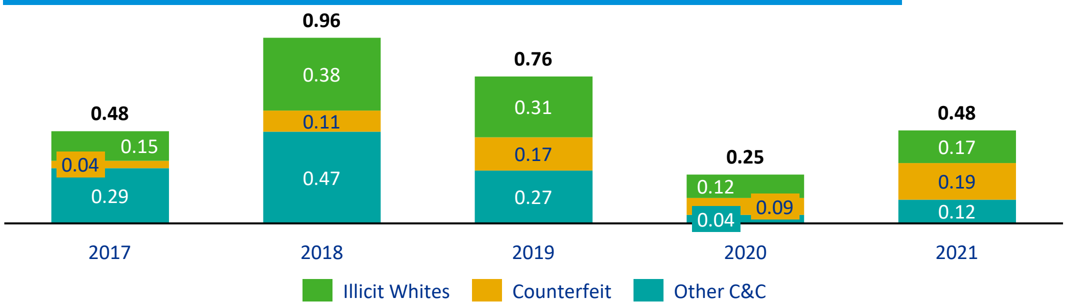


- C&C as a share of total consumption increased to 3.5%, or 0.48bn sticks, in 2021
- This C&C increase was driven by growth in Illicit Whites, Counterfeit and Other C&C inflows

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2017-2021(1)(2)



C&C consumption by type – 2017-2021 (bn cigarettes)(1)(2)(a)



Note: (a) C&C breakdown chart only includes Counterfeit volumes related to brands of manufactures who participate in the empty pack/yellow bag surveys (b) Total tax revenue lost represents estimated excise and VAT if C&C volumes had been consumed legally in the country of study; (c) Due to rounding, segments highlighted in the charts may not add up to the total and year-on-year changes highlighted in the sidebar may differ from the charts

Source: (1) KPMG EU Flows Calculation, 2017-21; (2) In Market Sales data

Czech Republic

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2017-2021[(1)(2)]

Total Czech Republic Consumption						
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**	**2020-21 (%)**
Legal Domestic Sales (LDS)	20.10	20.01	19.74	16.97	15.20	(10%)
Outflows	(6.19)	(5.58)	(4.81)	(4.15)	(2.56)	(38%)
Legal Domestic Consumption (LDC)	13.91	14.42	14.93	12.82	12.64	(1%)
Non-Domestic Legal (ND(L))	0.17	0.41	0.63	0.15	0.60	306%
Counterfeit and Contraband (C&C)	0.48	0.96	0.76	0.25	0.48	90%
Total Non-Domestic	0.64	1.37	1.39	0.40	1.08	170%
Total Consumption	**14.55**	**15.79**	**16.32**	**13.22**	**13.72**	**4%**

- Total cigarette consumption increased by approximately 0.5bn cigarettes in 2021, driven by increased non-domestic inflows, albeit total consumption remained approximately 2.6bn cigarettes below 2019 levels
- Inflows from all major source markets increased in 2021, with the largest increases being from Poland (0.2bn) and Germany (0.15bn)
- Outflows declined by 38% in 2021 and were approximately 17% of legal domestic sales
  - Neighbouring higher-priced Germany accounted for approximately 90% of outflows in 2021

Total inflows by country of origin – 2017-2021[(1)(a)]

Inflows to Czech Republic					
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**
Poland	0.04	0.08	0.20	0.02	0.21
Counterfeit	0.04	0.11	0.17	0.09	0.19
Germany	0.01	0.04	0.06	0.03	0.18
IWs with no country-specific labelling	0.07	0.24	0.18	0.04	0.09
Ukraine	0.15	0.23	0.17	0.05	0.06
Other	0.34	0.67	0.60	0.17	0.34
Total Inflows	**0.64**	**1.37**	**1.39**	**0.40**	**1.08**

Total outflows by destination – 2017-2021[(1)(a)]

Outflows from Czech Republic					
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**
Germany	(5.00)	(4.68)	(4.09)	(3.68)	(2.31)
Other	(1.18)	(0.90)	(0.72)	(0.48)	(0.25)
Total Outflows	**(6.19)**	**(5.58)**	**(4.81)**	**(4.15)**	**(2.56)**

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

Source: (1) KPMG EU Flows Calculation, 2017-21; (2) In Market Sales data;

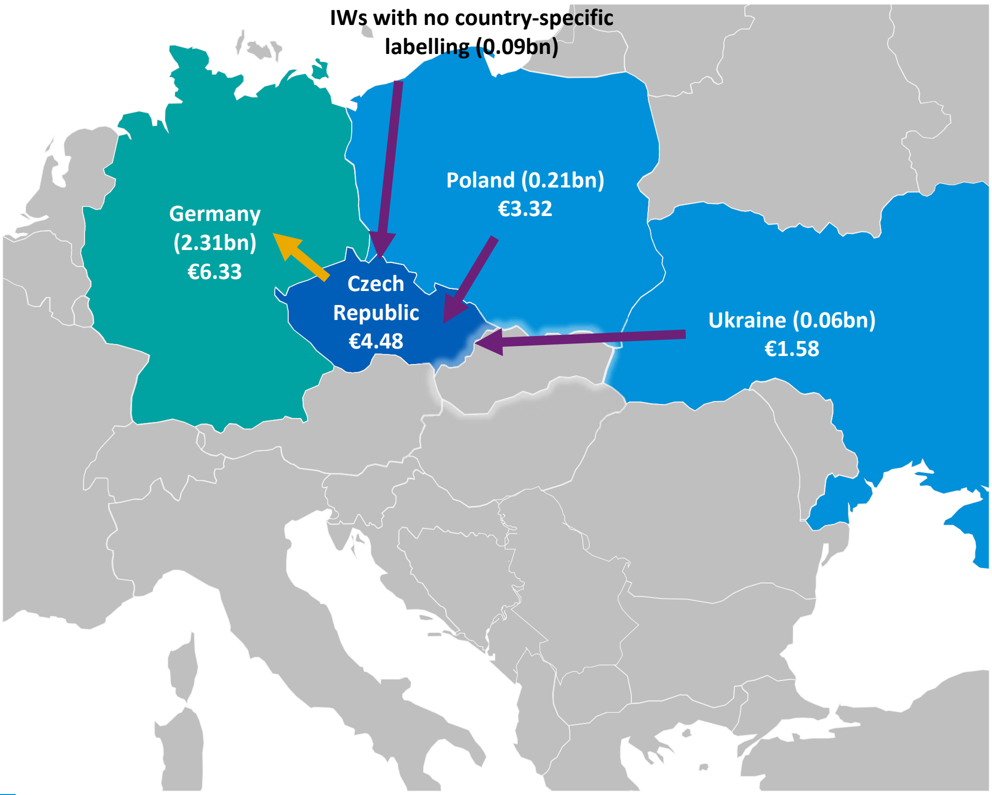
Czech Republic

Key flows and C&C consumption patterns

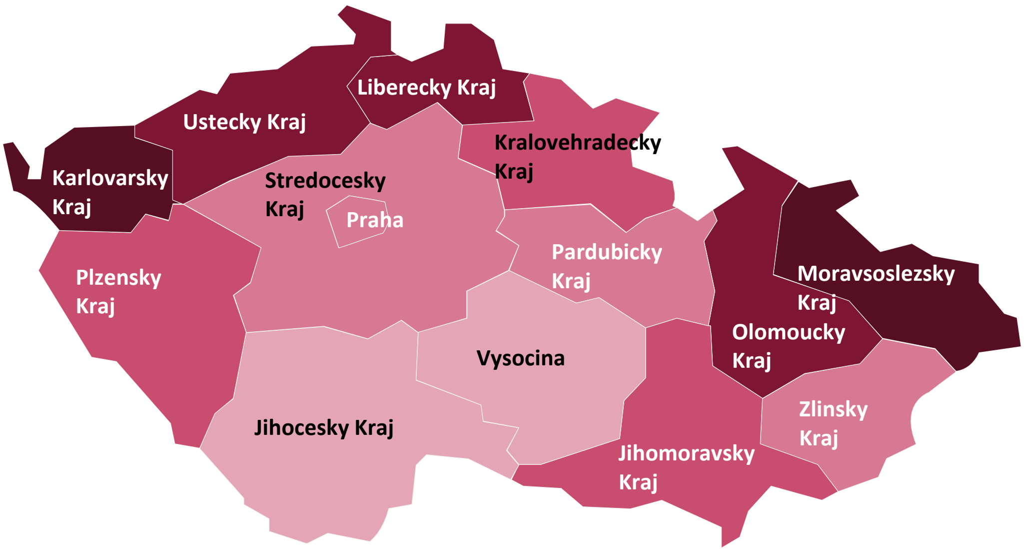
Key inflows and outflows[1][2][a][b]

- Czech Republic
- Source
- Destination
- Inflow
- Outflow

Label description:
Country (Inflow/ Outflow Volume) WAP



C&C % by region[1][c][d]



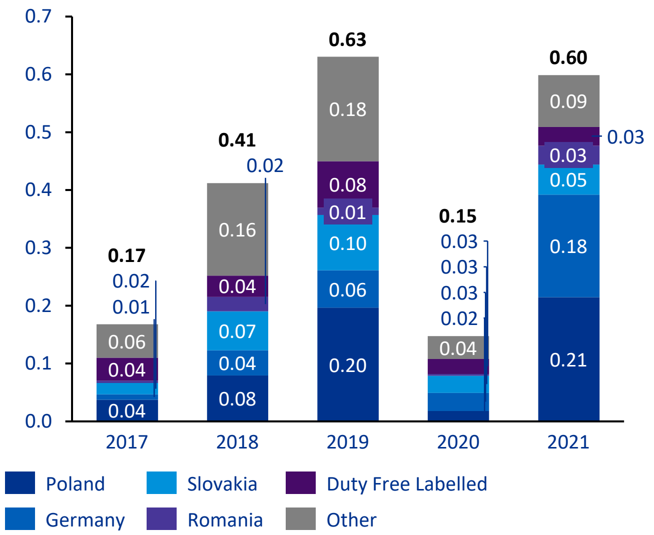
Note: (a) For countries with both inflows and outflows, only the larger of the two flows have been shown; (b) Czech Republic weighted average price (WAP) is for the full year 2021 This differs from the WAP used to estimate tax loss, which is from European Commission Excise Duty Tables available as of July 2021; (c) C&C scale is relative to this market and is not comparable with other markets in the study, (d) Data not available for regions in grey

Source: (1) KPMG EU Flows Calculation 2021; (2) Czech Republic WAP sourced from: 'Determination of the weighted average price of cigarettes', Czech Republic Customs Administration

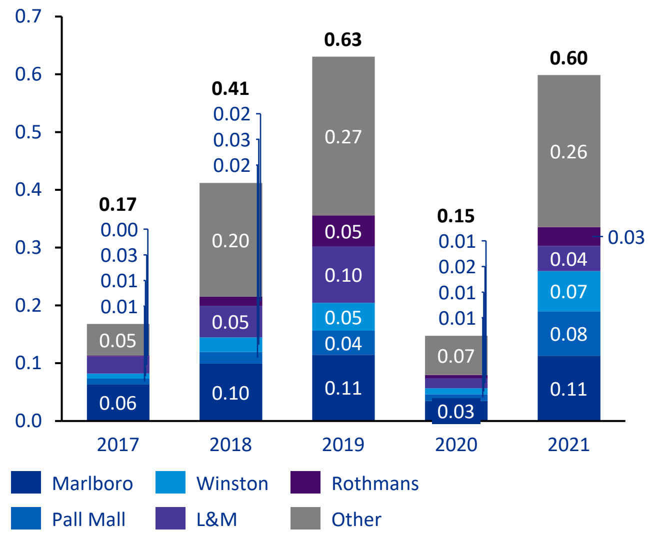
Czech Republic

ND(L) and C&C flows

ND(L) by country of origin – 2017-2021 (bn cigarettes)(1)



ND(L) by brand – 2017-2021 (bn cigarettes)(1)

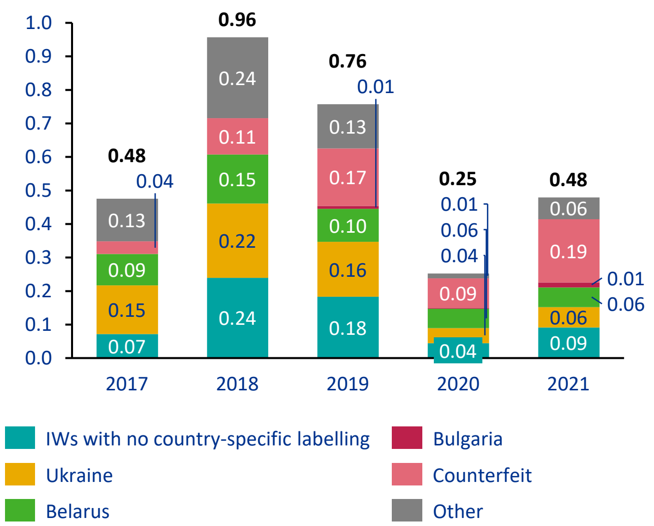


— Non-domestic legal (ND(L)) volumes increased in 2021, returning to a similar level as that seen in 2019, driven by increased ND(L) flows from neighbouring Poland and Germany

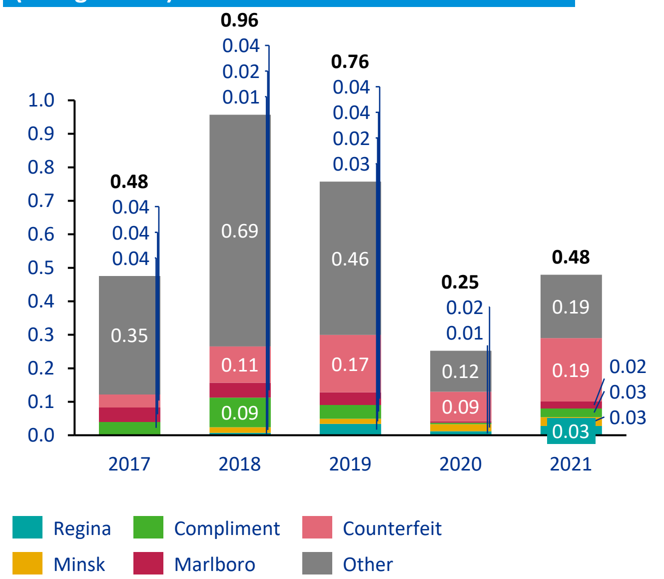
— Increased C&C levels were driven by growth in Counterfeit, Illicit Whites with no country specific labelling and illicit flows from smaller source markets within the 'Other' category

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

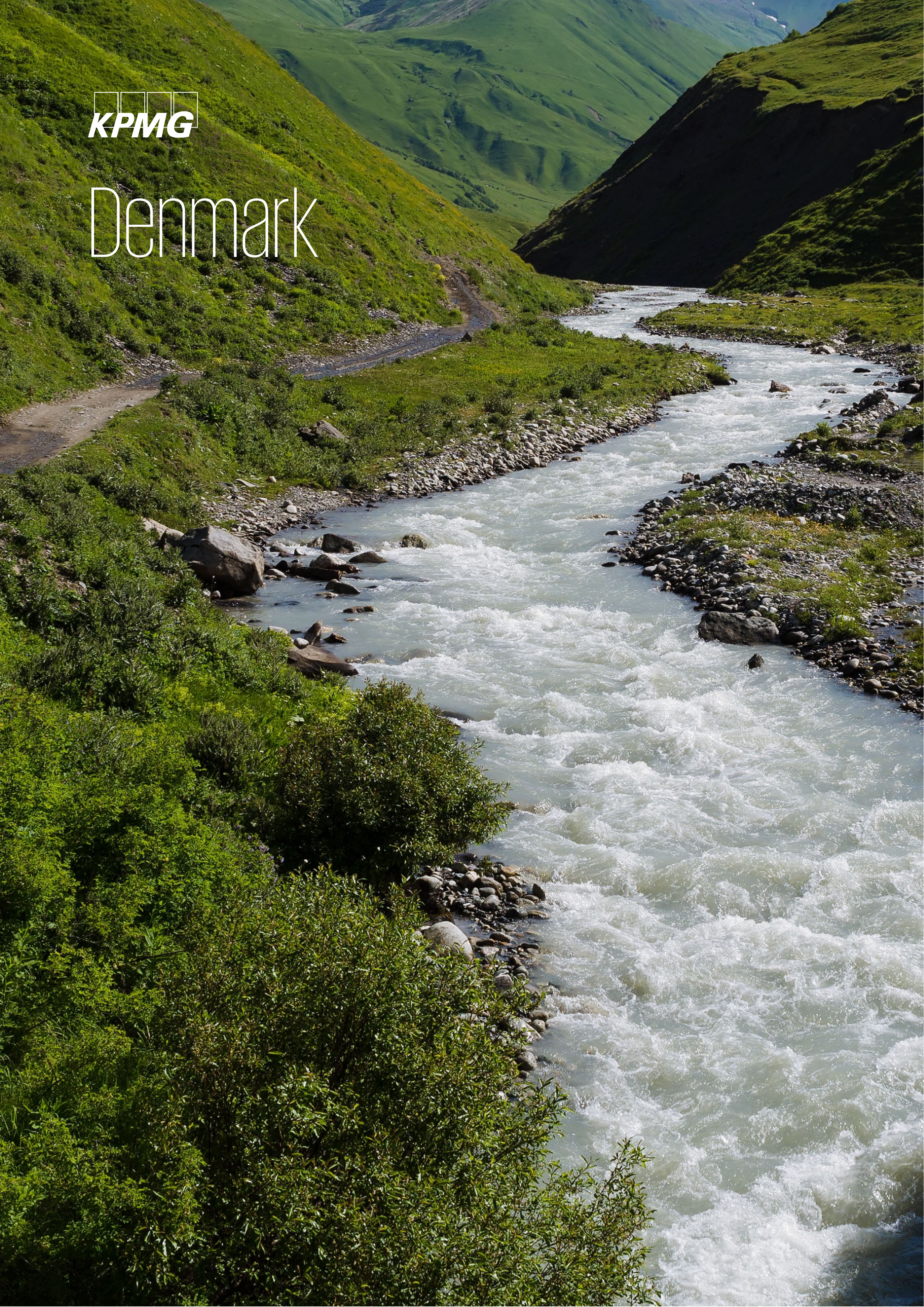
C&C by country of origin – 2017-2021 (bn cigarettes)(1)(a)



C&C by brand – 2017-2021 (bn cigarettes) (1)(a)



Note: (a) Only includes Counterfeit volumes related to brands of manufactures who participate in the empty pack/yellow bag surveys.
Source: (1) KPMG EU Flows Calculation, 2017-21;


KPMG
Denmark

Denmark

C&C cigarette consumption and total consumption

5.7bn

Cigarettes consumed

+0.79bn on 2020

0.4bn

C&C cigarettes consumed

+0.24bn on 2020

6.5%

Of total consumption was C&C

+3.85%pts on 2020

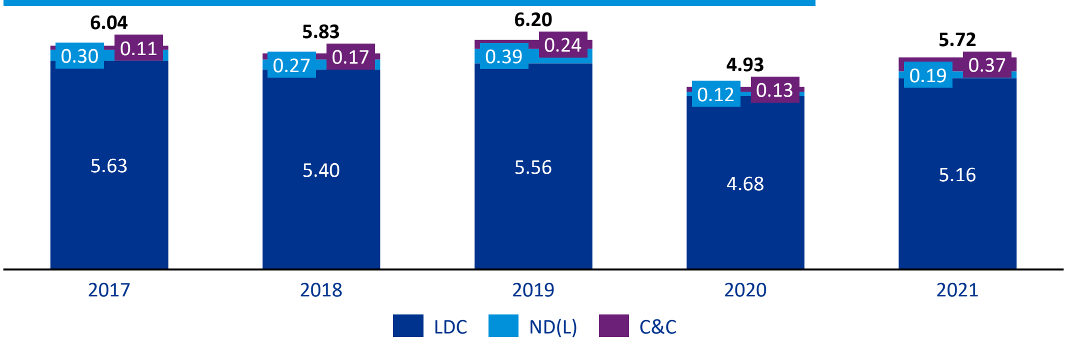
€114m

(DKK849m)[3]

Total tax revenue lost from C&C

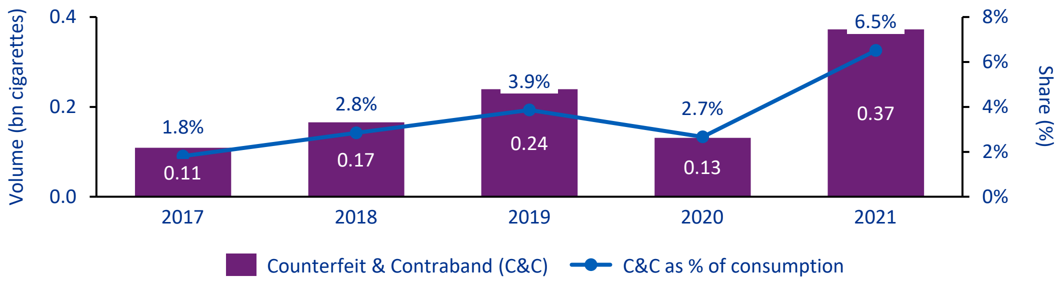
+€76m on 2020

Total consumption – 2017-2021 (bn cigarettes)[1][2]

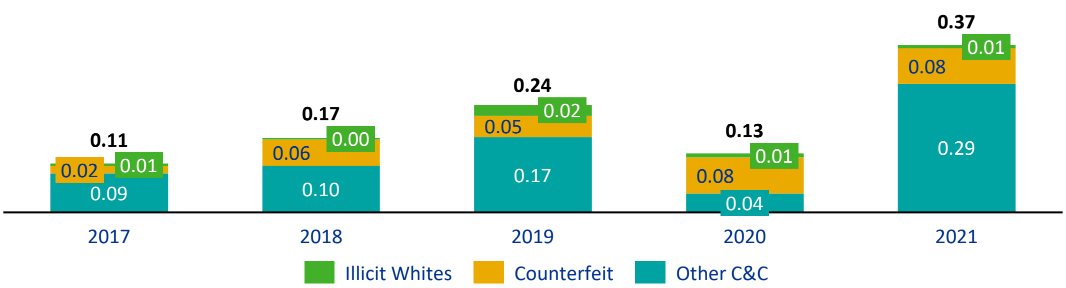


- C&C as a share of total consumption increased to 6.5%, the highest in the reporting period
- Increased C&C was driven by growth in the Other C&C category

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2017-2021[1][2]



C&C consumption by type – 2017-2021 (bn cigarettes)[1][2][a]



Note: (a) C&C breakdown chart only includes Counterfeit volumes related to brands of manufactures who participate in the empty pack/yellow bag surveys; (b) Total tax revenue lost represents estimated excise and VAT if C&C volumes had been consumed legally in the country of study; (c) Due to rounding, segments highlighted in the charts may not add up to the total and year-on-year changes highlighted in the sidebar may differ from the charts

Source: (1) KPMG EU Flows Calculation, 2017-21; (2) In Market Sales data; (3) EUR 1 = DEK 7.437, InforEuro, European Commission, December 2021

Denmark

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2017-2021[(1)(2)]

Total Denmark Consumption						
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**	**2020-21 (%)**
Legal Domestic Sales (LDS)	5.74	5.51	5.68	4.75	5.20	10%
Outflows	(0.10)	(0.12)	(0.11)	(0.07)	(0.04)	(44%)
Legal Domestic Consumption (LDC)	5.63	5.40	5.56	4.68	5.16	10%
Non-Domestic Legal (ND(L))	0.30	0.27	0.39	0.12	0.19	60%
Counterfeit and Contraband (C&C)	0.11	0.17	0.24	0.13	0.37	184%
Total Non-Domestic	0.40	0.44	0.63	0.25	0.56	125%
Total Consumption	**6.04**	**5.83**	**6.20**	**4.93**	**5.72**	**16%**

— Total cigarette consumption increased by 0.79bn (c.16%), driven by an increase in legal domestic sales and non-domestic inflows, although it still remained below levels seen between 2017 and 2019

— Total non-domestic inflows increased by 0.31bn (c.125%) with inflows increasing from all sources, with the exception of Counterfeit which remained stable

— Poland became the largest source of inflows for the first time in the reporting period

Total inflows by country of origin – 2017-2021[(1)(a)]

Inflows to Denmark					
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**
Poland	0.02	0.01	0.02	0.03	0.08
Counterfeit	0.02	0.06	0.05	0.08	0.08
Sweden	0.07	0.03	0.08	0.03	0.07
Duty Free Labelled	0.11	0.13	0.16	0.04	0.06
Germany	0.01	0.03	0.04	0.01	0.05
Other	0.18	0.17	0.28	0.06	0.23
Total Inflows	**0.40**	**0.44**	**0.63**	**0.25**	**0.56**

Total outflows by destination – 2017-2021[(1)(a)]

Outflows from Denmark					
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**
Germany	(0.01)	(0.01)	(0.02)	(0.02)	(0.01)
Norway	(0.01)	(0.02)	(0.00)	(0.00)	(0.01)
Sweden	(0.02)	(0.02)	(0.02)	(0.01)	(0.01)
France	(0.01)	(0.01)	(0.00)	(0.01)	(0.00)
Poland	(0.01)	(0.01)	(0.01)	(0.01)	(0.00)
Other	(0.05)	(0.05)	(0.05)	(0.03)	(0.01)
Total Outflows	**(0.10)**	**(0.12)**	**(0.11)**	**(0.07)**	**(0.04)**

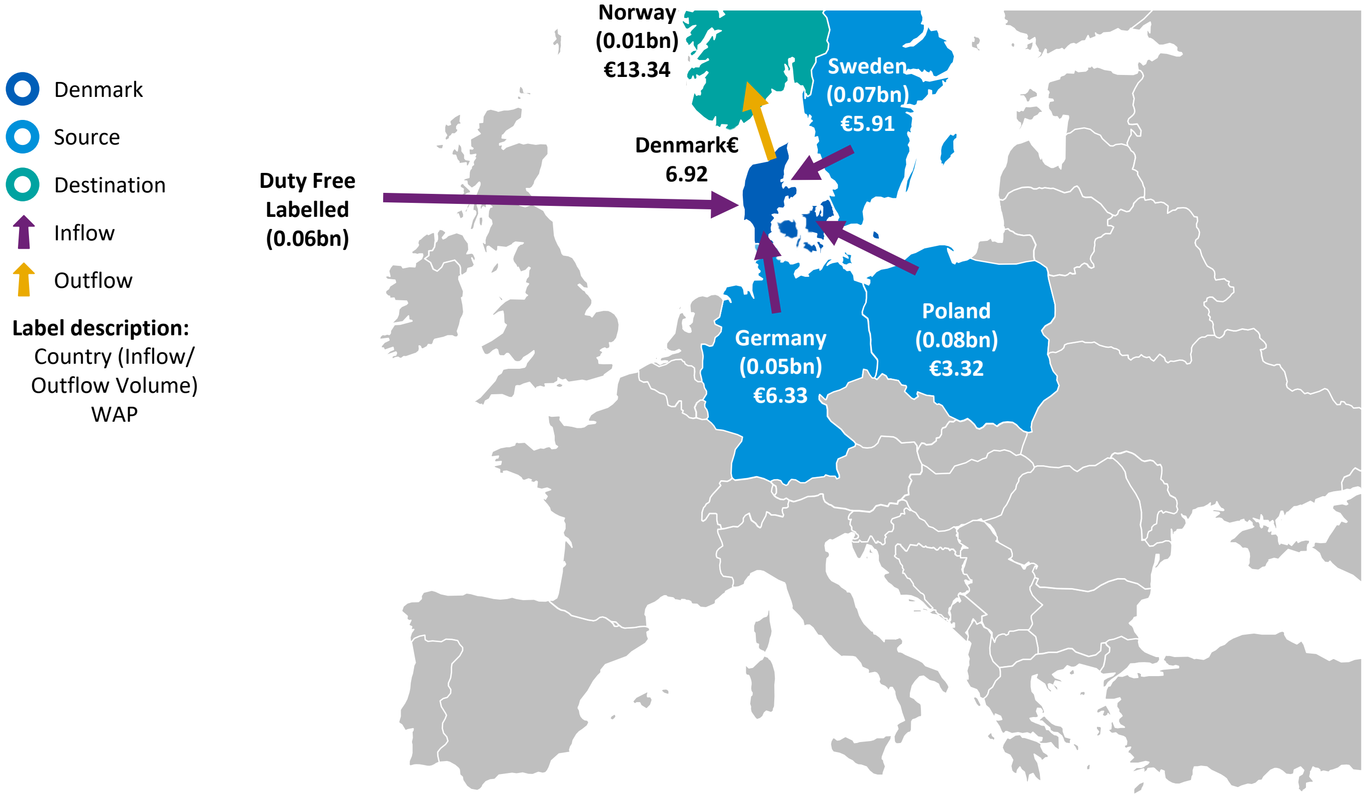
Note: (a) The inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows

Source: (1) KPMG EU Flows Calculation, 2017-21; (2) In Market Sales data;

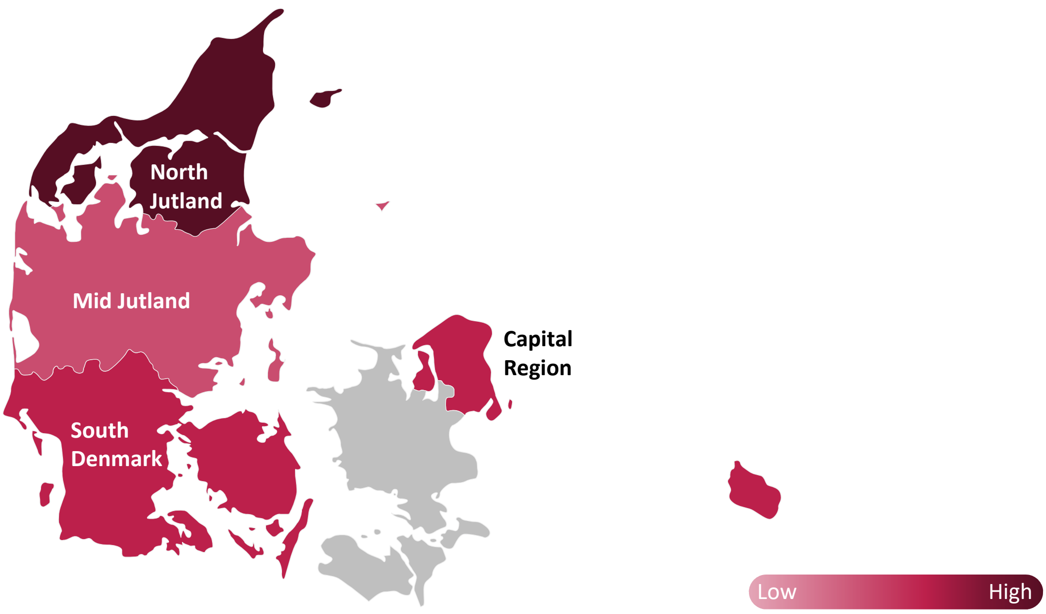
Denmark

Key flows and C&C consumption patterns

Key inflows and outflows[1](a)



C&C % by region[1](b)(c)



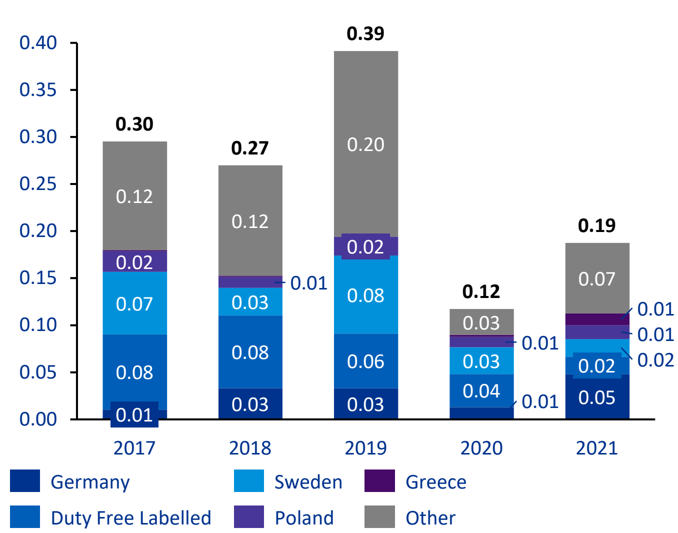
Note: (a) For countries with both inflows and outflows, only the larger of the two flows have been shown (b) C&C scale is relative to this market and is not comparable with other markets in the study, (c) Data not available for regions in grey

Source: (1) KPMG EU Flows Calculation 2021

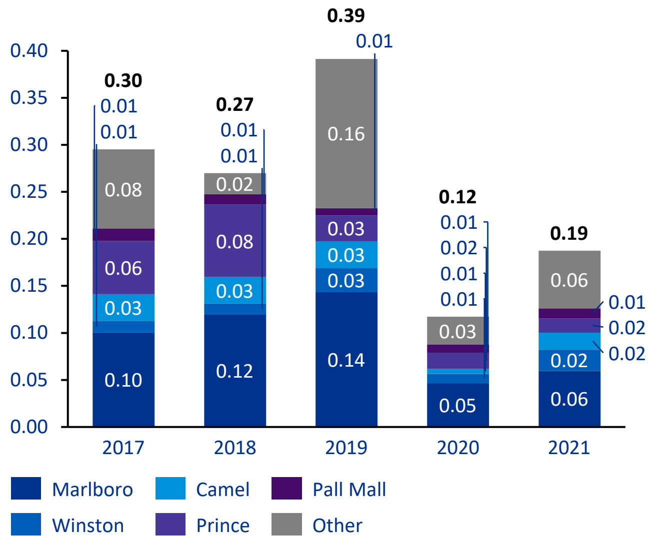
Denmark

ND(L) and C&C flows

ND(L) by country of origin – 2017-2021 (bn cigarettes)[1]



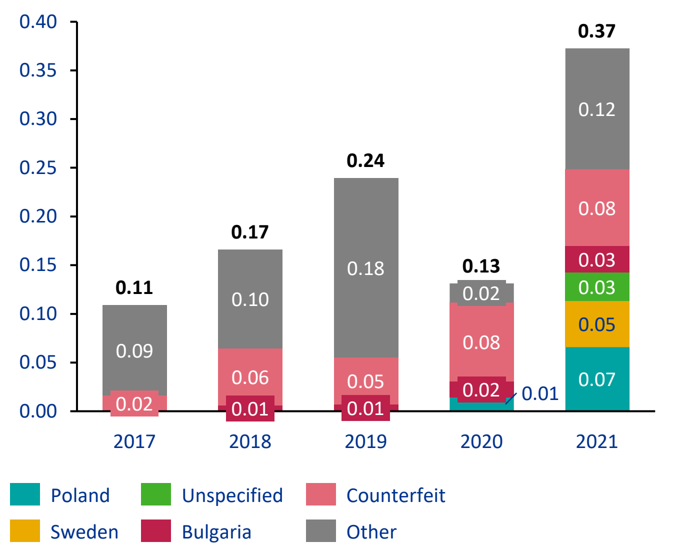
ND(L) by brand – 2017-2021 (bn cigarettes)[1]



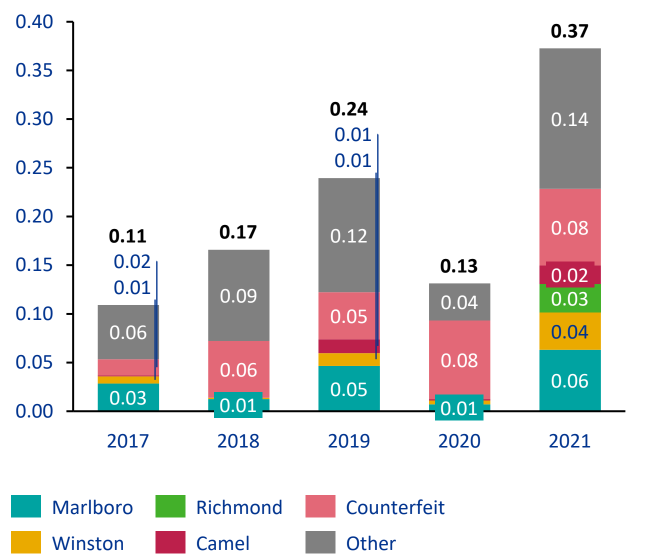
— ND(L) flows increased by 0.07bn (60%) in 2021 primarily driven by an increase in inflows from Germany and smaller source markets within the 'Other' category

— Illicit flows increased to the highest level seen in the reporting period, with C&C from Counterfeit, Poland and Sweden accounting for over half of all illicit consumption

C&C by country of origin – 2017-2021 (bn cigarettes)[1](a)



C&C by brand – 2017-2021 (bn cigarettes)[1](a)



Note: (a) Only includes Counterfeit volumes related to brands of manufactures who participate in the empty pack/yellow bag surveys.

Source: (1) KPMG EU Flows Calculation, 2017-21;

Estonia

Estonia

C&C cigarette consumption and total consumption

1.3bn

Cigarettes consumed

-0.09bn on 2020

0.1bn

C&C cigarettes consumed

+0.04bn on 2020

10.3%

Of total consumption was C&C

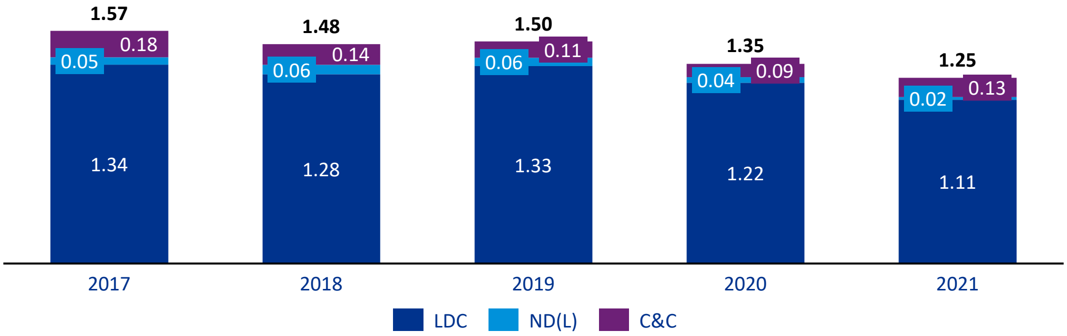
+3.66%pts on 2020

€24m

Total tax revenue lost from C&C

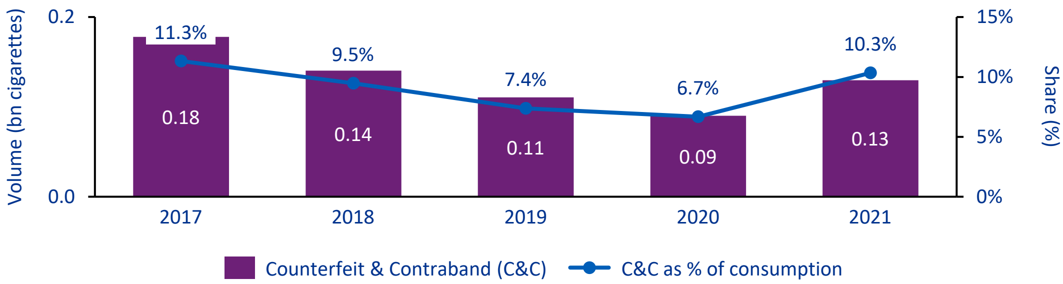
+€8m on 2020

Total consumption – 2017-2021 (bn cigarettes)(1)(2)

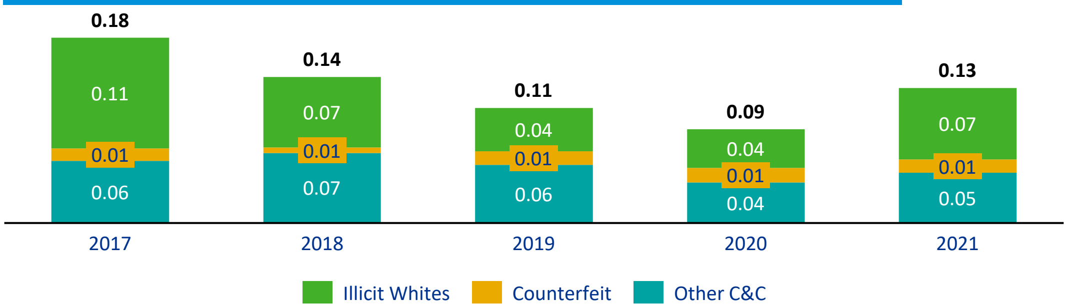


- C&C as a share of total consumption increased to 10.3%, reversing a declining trend since 2017
- The 2021 C&C increase was driven by larger inflows of Illicit Whites and Other C&C

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2017-2021(1)(2)



C&C consumption by type – 2017-2021 (bn cigarettes)(1)(2)(a)



Note: (a) C&C breakdown chart only includes Counterfeit volumes related to brands of manufactures who participate in the empty pack/yellow bag surveys; (b) Total tax revenue lost represents estimated excise and VAT if C&C volumes had been consumed legally in the country of study ; (c) Due to rounding, segments highlighted in the charts may not add up to the total and year-on-year changes highlighted in the sidebar may differ from the charts

Source: (1) KPMG EU Flows Calculation, 2017-21; (2) In Market Sales data

Estonia

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2017-2021[(1)(2)]

Total Estonia Consumption						
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**	**2020-21 (%)**
Legal Domestic Sales (LDS)	1.65	1.54	1.56	1.46	1.42	(3%)
Outflows	(0.30)	(0.26)	(0.23)	(0.24)	(0.32)	32%
Legal Domestic Consumption (LDC)	1.34	1.28	1.33	1.22	1.11	(9%)
Non-Domestic Legal (ND(L))	0.05	0.06	0.06	0.04	0.02	(51%)
Counterfeit and Contraband (C&C)	0.18	0.14	0.11	0.09	0.13	44%
Total Non-Domestic	0.23	0.20	0.17	0.13	0.15	16%
Total Consumption	**1.57**	**1.48**	**1.50**	**1.35**	**1.25**	**(7%)**

- Total cigarette consumption declined by 7% in 2021, largely due to increasing outflows
- Belarus and Russia continue to be the largest sources of non-domestic inflows in Estonia, with inflows increasing in 2021. This was partly offset by declines in Duty Free Labelled and sources within 'Other'
- Higher-priced Finland remains the principal outflow destination for Estonian cigarettes, with outflows increasing by 0.09bn in 2021 (c.45%). Finland accounted for 96% of outflows from Estonia in 2021 (c.87% in 2020)

Total inflows by country of origin – 2017-2021[(1)(a)]

Inflows to Estonia					
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**
Belarus	0.07	0.05	0.03	0.02	0.06
Russia	0.07	0.05	0.05	0.02	0.04
Duty Free Labelled	0.02	0.02	0.03	0.03	0.01
Counterfeit	0.01	0.01	0.01	0.01	0.01
Other	0.05	0.07	0.04	0.04	0.03
Total Inflows	**0.23**	**0.20**	**0.17**	**0.13**	**0.15**

Total outflows by destination – 2017-2021[(1)(a)]

Outflows from Estonia					
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**
Finland	(0.27)	(0.23)	(0.19)	(0.21)	(0.30)
Other	(0.03)	(0.03)	(0.03)	(0.03)	(0.01)
Total Outflows	**(0.30)**	**(0.26)**	**(0.23)**	**(0.24)**	**(0.32)**

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

Source: (1) KPMG EU Flows Calculation, 2017-21; (2) In Market Sales data;

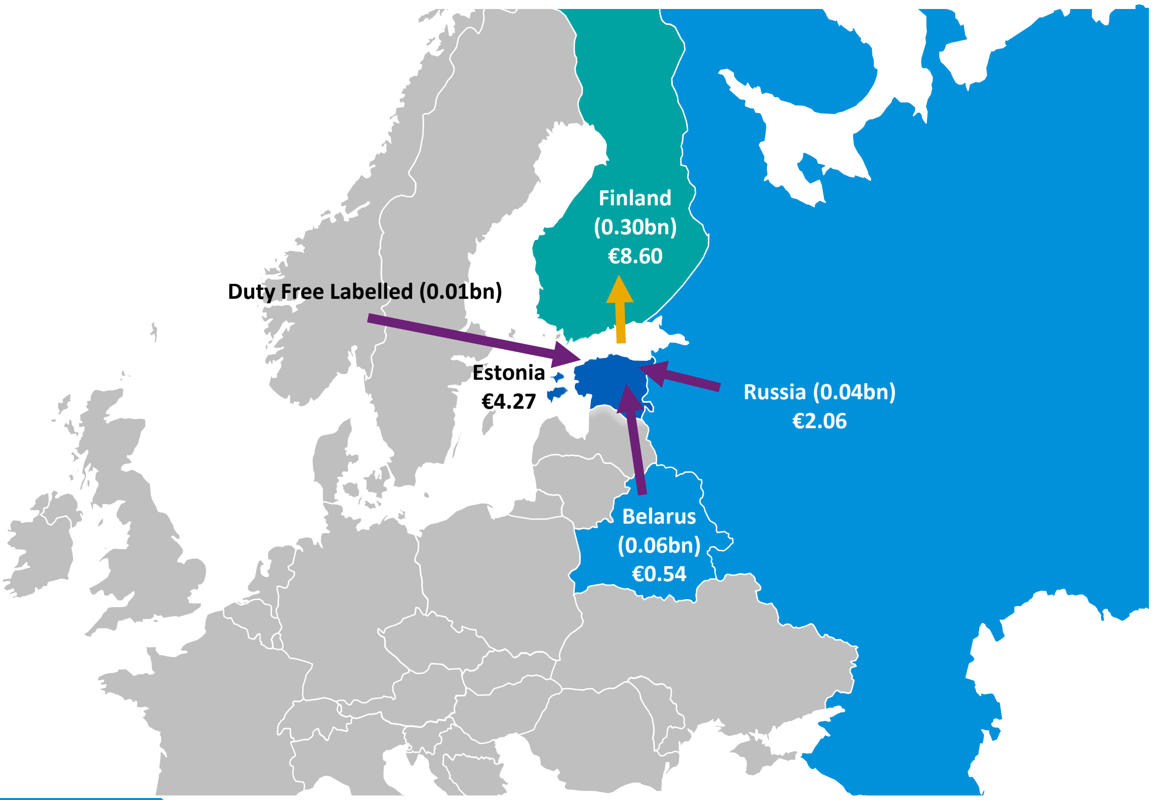
Estonia

Key flows and C&C consumption patterns

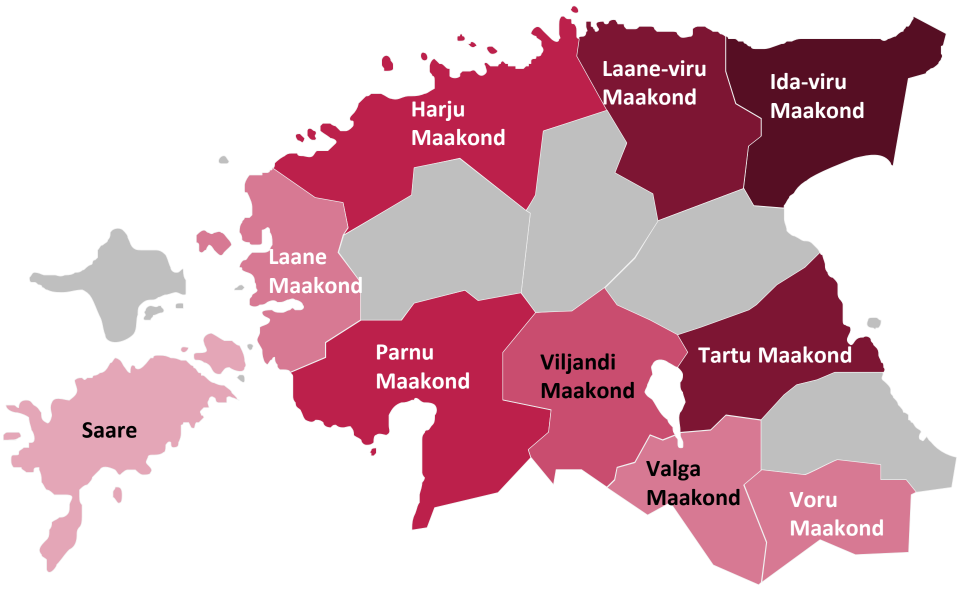
Key inflows and outflows[1](a)

Estonia
Source
Destination
Inflow
Outflow

Label description:
Country (Inflow/ Outflow Volume) WAP



C&C % by region[1](b)(c)



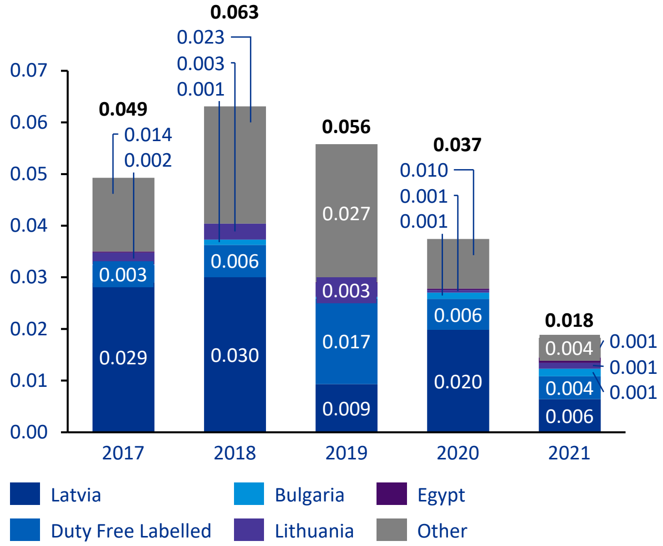
Note: (a) For countries with both inflows and outflows, only the larger of the two flows have been shown (b) C&C scale is relative to this market and is not comparable with other markets in the study, (c) Data not available for regions in grey

Source: (1) KPMG EU Flows Calculation 2021

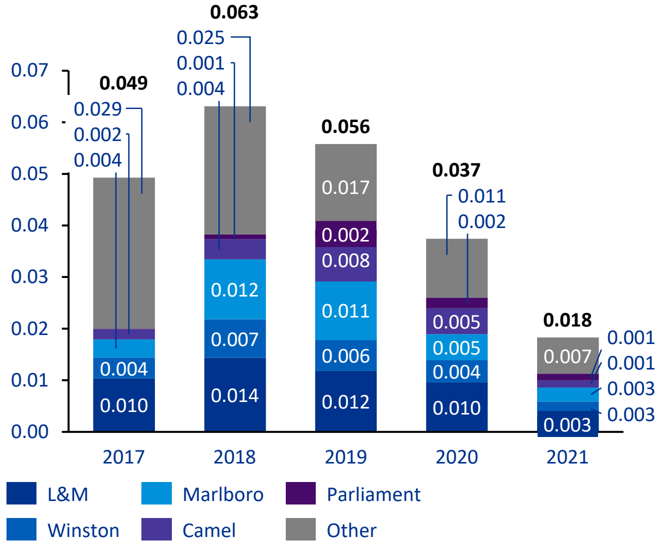
Estonia

ND(L) and C&C flows

ND(L) by country of origin – 2017-2021 (bn cigarettes)[1]



ND(L) by brand – 2017-2021 (bn cigarettes)[1]

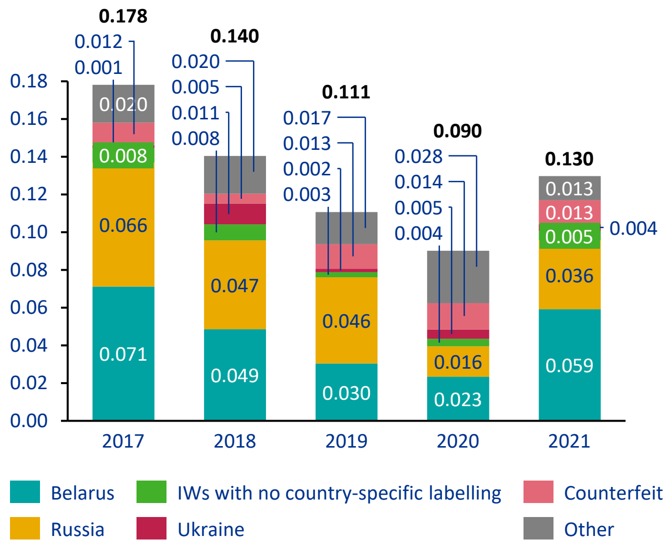


— Legal inflows (ND(L)) declined from all major sources in 2021, leading to c.50% overall decline in ND(L)

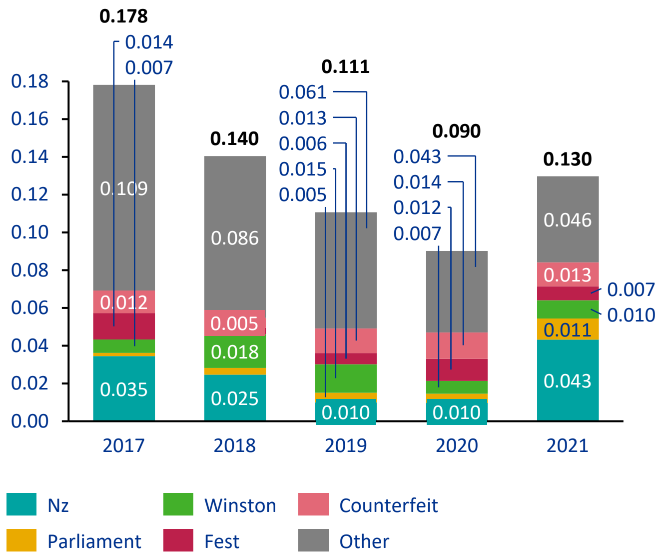
— C&C flows from Belarus and Russia were the main drivers of increased illicit consumption in 2021, accounting for 74% of all C&C in 2021, a similar proportion to that seen between 2017 and 2019

— C&C levels were highest in the Ida-viru Maakond region in the North East of the country

C&C by country of origin – 2017-2021 (bn cigarettes)[1](a)



C&C by brand – 2017-2021 (bn cigarettes)[1](a)



Note: (a) Only includes Counterfeit volumes related to brands of manufactures who participate in the empty pack/yellow bag surveys.
Source: (1) KPMG EU Flows Calculation, 2017-21;


Finland

Finland

C&C cigarette consumption and total consumption

3.9bn

Cigarettes consumed

-0.06bn on 2020

0.5bn

C&C cigarettes consumed

+0.15bn on 2020

13.6%

Of total consumption was C&C

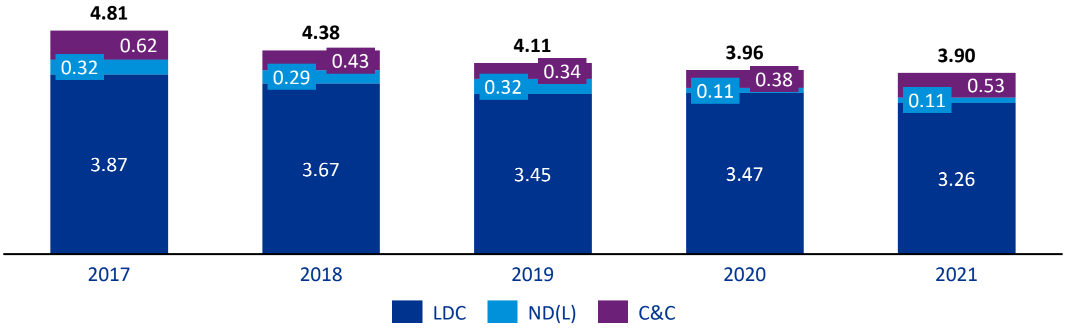
+3.96%pts on 2020

€205m

Total tax revenue lost from C&C

+€72m on 2020

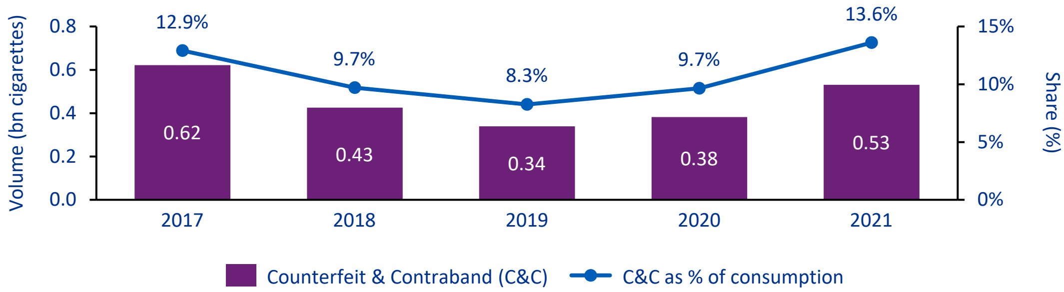
Total consumption – 2017-2021 (bn cigarettes)(1)(2)



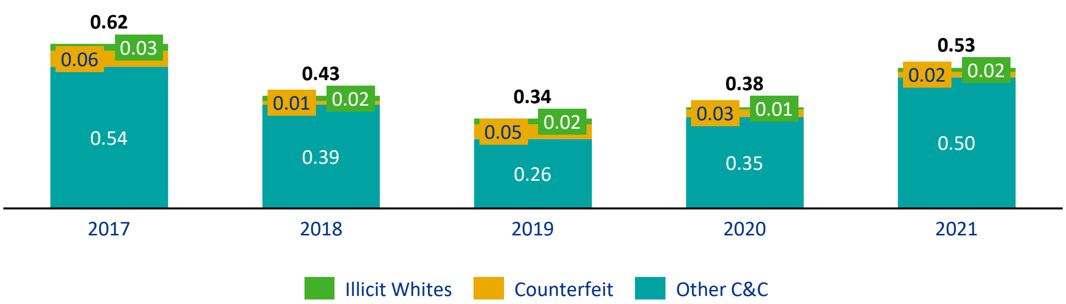
— C&C as a share of total consumption increased by c.4ppt to 13.6%, the largest share observed in the reporting period

— This increase was primarily driven by an increase in Other C&C

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2017-2021(1)(2)



C&C consumption by type – 2017-2021 (bn cigarettes)(1)(2)(a)



Note: (a) C&C breakdown chart only includes Counterfeit volumes related to brands of manufactures who participate in the empty pack/yellow bag surveys; (b) Total tax revenue lost represents estimated excise and VAT if C&C volumes had been consumed legally in the country of study; (c) Due to rounding, segments highlighted in the charts may not add up to the total and year-on-year changes highlighted in the sidebar may differ from the charts

Source: (1) KPMG EU Flows Calculation, 2017-21; (2) In Market Sales data

Finland

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2017-2021[1][2]

Total Finland Consumption						
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**	**2020-21 (%)**
Legal Domestic Sales (LDS)	3.91	3.72	3.48	3.48	3.26	(6%)
Outflows	(0.05)	(0.05)	(0.03)	(0.02)	(0.01)	(66%)
Legal Domestic Consumption (LDC)	3.87	3.67	3.45	3.47	3.26	(6%)
Non-Domestic Legal (ND(L))	0.32	0.29	0.32	0.11	0.11	4%
Counterfeit and Contraband (C&C)	0.62	0.43	0.34	0.38	0.53	39%
Total Non-Domestic	0.94	0.71	0.66	0.49	0.64	31%
Total Consumption	**4.81**	**4.38**	**4.11**	**3.96**	**3.90**	**(1%)**

- Total consumption declined by 1% as a decline in legal domestic consumption was largely offset by increased illicit (C&C) consumption
- Inflows increased by 31%, principally driven by increased flows from Estonia, Duty Free Labelled and Latvia
- Estonia remained the main source of Finnish non-domestic consumption, where there was a price difference of over €4 per packet of 20 cigarettes[3]
- Outflows are low most likely due to the relatively high price of cigarettes in Finland compared to neighbouring markets

Total inflows by country of origin – 2017-2021[1][a]

Inflows to Finland					
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**
Estonia	0.27	0.23	0.19	0.21	0.30
Duty Free Labelled	0.25	0.21	0.21	0.13	0.16
Latvia	0.02	0.02	0.02	0.03	0.05
Other	0.40	0.25	0.24	0.12	0.13
Total Inflows	**0.94**	**0.71**	**0.66**	**0.49**	**0.64**

Total outflows by destination – 2017-2021[1][a]

Outflows from Finland					
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**
Other	(0.05)	(0.05)	(0.03)	(0.02)	(0.01)
Total Outflows	**(0.05)**	**(0.05)**	**(0.03)**	**(0.02)**	**(0.01)**

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

Source: (1) KPMG EU Flows Calculation, 2017-21; (2) In Market Sales data; (3) European Commission Excise Duty Tables

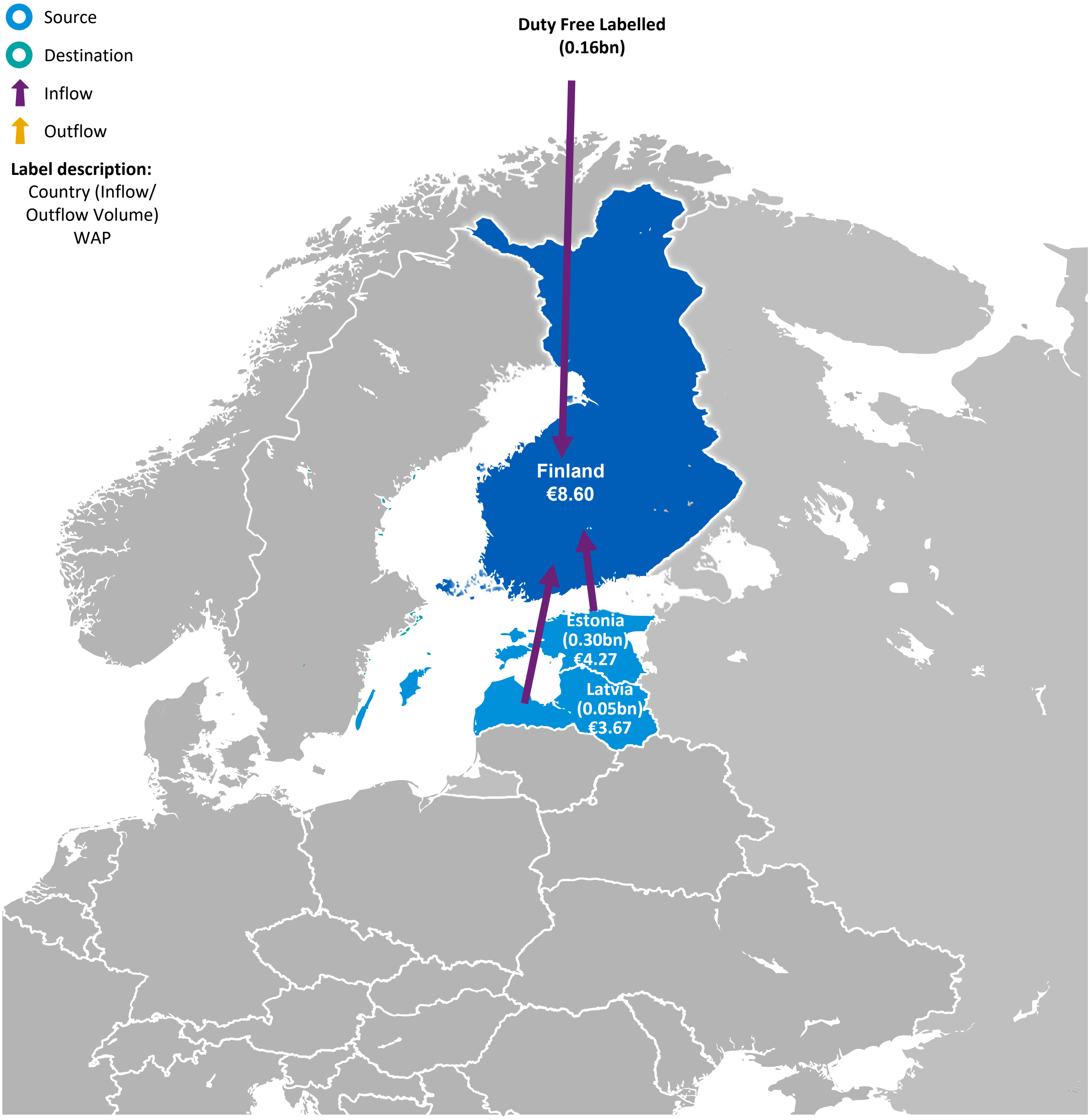
Finland

Key flows

Key inflows and outflows[1](a)

- Finland
- Source
- Destination
- Inflow
- Outflow

Label description:
Country (Inflow/ Outflow Volume)
WAP



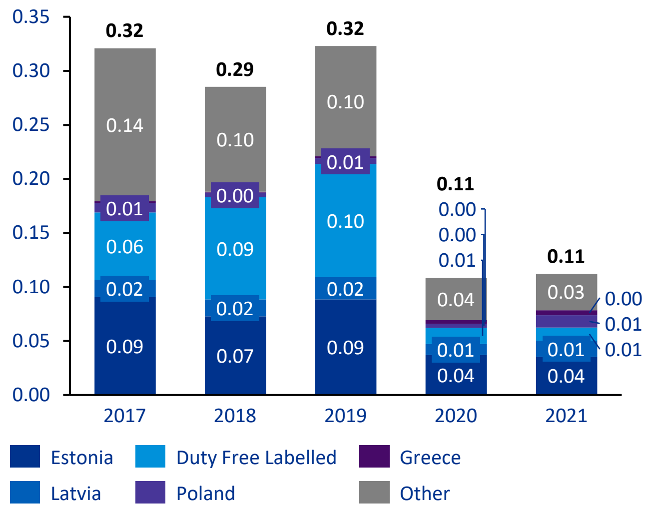
Note: (a) For countries with both inflows and outflows, only the larger of the two flows have been shown

Source: (1) KPMG EU Flows Calculation 2021

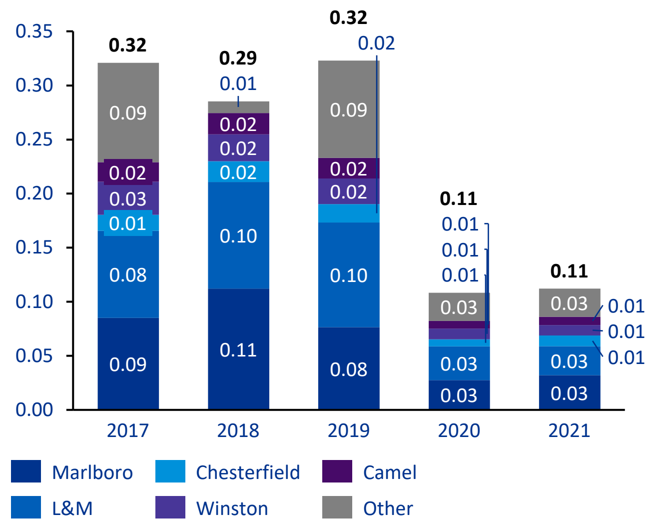
Finland

ND(L) and C&C flows

ND(L) by country of origin – 2017-2021 (bn cigarettes)[1]

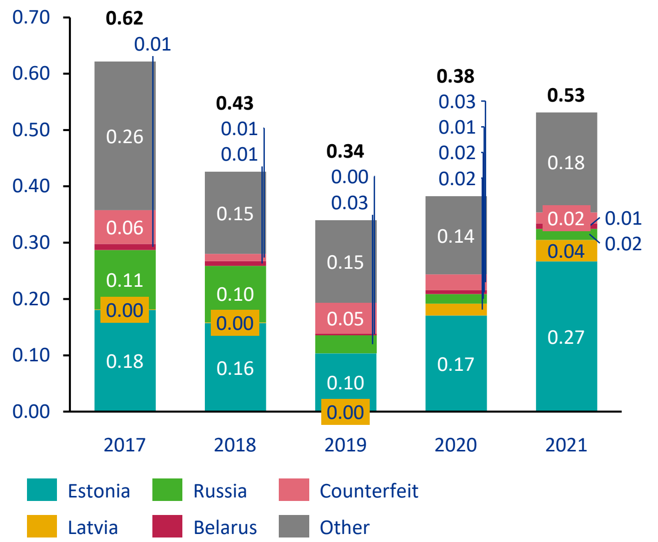


ND(L) by brand – 2017-2021 (bn cigarettes)[1]

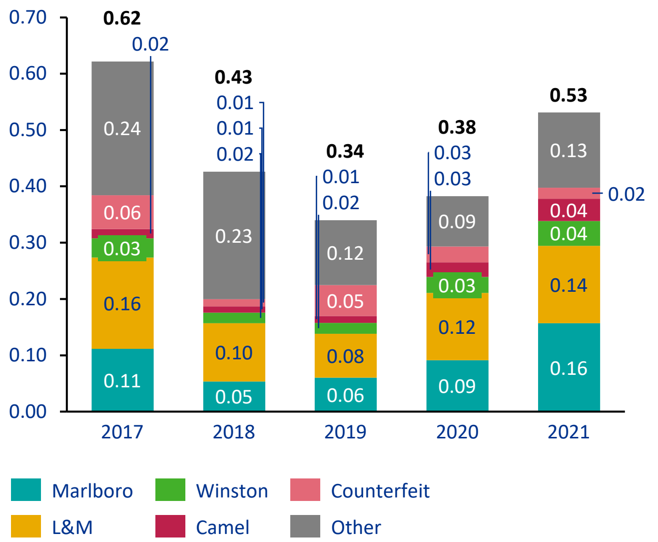


- Total legal inflows (ND(L)) remained relatively stable in 2021
- C&C reached 0.53bn in 2021, the highest volume since 2017, primarily due to increased illicit inflows from Estonia as well as smaller increases from Latvia and countries within the ‘Other’ category

C&C by country of origin – 2017-2021 (bn cigarettes)[1](a)



C&C by brand – 2017-2021 (bn cigarettes)[1](a)



Note: (a) Only includes Counterfeit volumes related to brands of manufactures who participate in the empty pack/yellow bag surveys.
Source: (1) KPMG EU Flows Calculation, 2017-21;


France

France

51.5bn

Cigarettes consumed

+0.69bn on 2020

15.1bn

C&C cigarettes consumed

+3.38bn on 2020

29.4%

Of total consumption was C&C

+6.26%pts on 2020

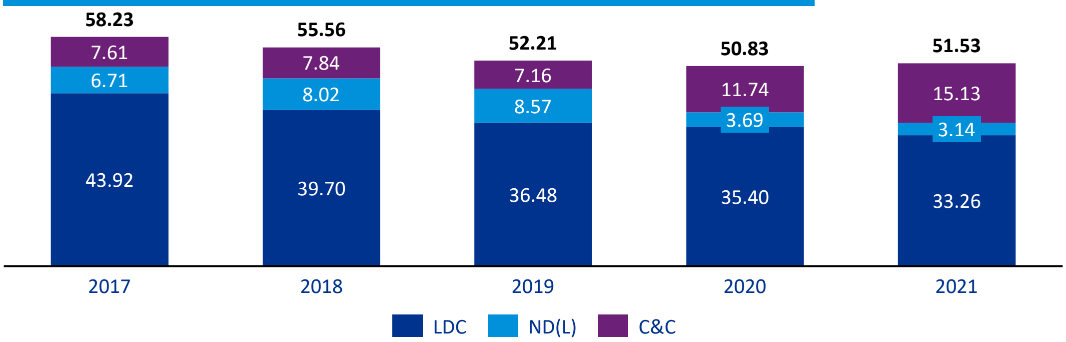
€6,220m

Total tax revenue lost from C&C

+€1,928m on 2020

C&C cigarette consumption and total consumption

Total consumption – 2017-2021 (bn cigarettes)(1)(2)

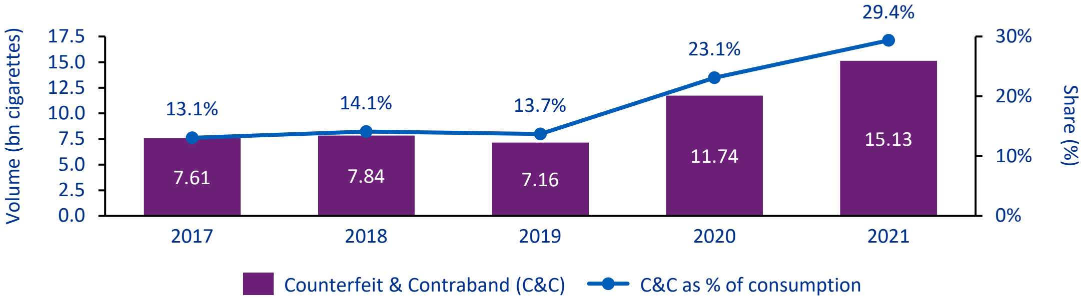


— C&C increased by 3.38bn to reach 29.4% of total cigarette consumption in 2021, the highest share in this Report

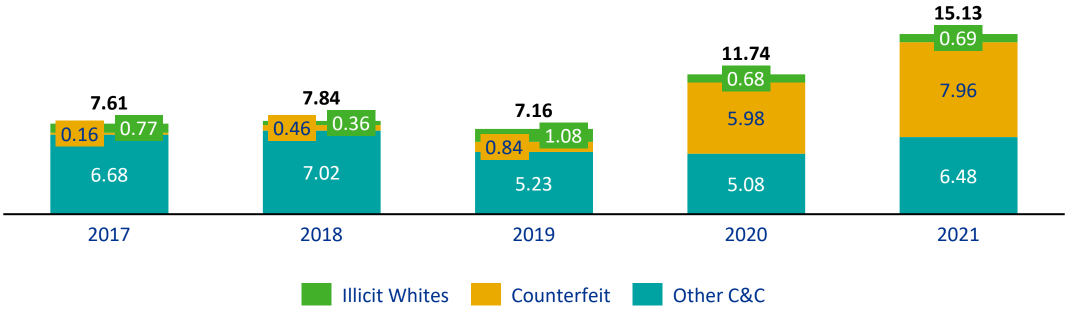
— This increase was driven by Counterfeit (c.2.0bn) and Other C&C (c.1.4bn)

— Counterfeit packs were predominantly of the brand Marlboro, the majority of which bore Duty Free labelling

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2017-2021(1)(2)



C&C consumption by type – 2017-2021 (bn cigarettes)(1)(2)(a)



Note: (a) C&C breakdown chart only includes Counterfeit volumes related to the brands of manufacturers participating in the empty pack/ yellow bag surveys (b) Total tax revenue lost represents estimated excise and VAT if C&C volumes had been consumed legally in the country of study; (c) Due to rounding, segments highlighted in the charts may not add up to the total and year-on-year changes highlighted in the sidebar may differ from the charts

Source: (1) KPMG EU Flows Calculation, 2017-21; (2) In Market Sales data

France

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2017-2021[1][2]

Total France Consumption						
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**	**2020-21 (%)**
Legal Domestic Sales (LDS)	44.37	40.23	37.21	35.82	33.48	(7%)
Outflows	(0.45)	(0.53)	(0.73)	(0.42)	(0.22)	(47%)
Legal Domestic Consumption (LDC)	43.92	39.70	36.48	35.40	33.26	(6%)
Non-Domestic Legal (ND(L))	6.71	8.02	8.57	3.69	3.14	(15%)
Counterfeit and Contraband (C&C)	7.61	7.84	7.16	11.74	15.13	29%
Total Non-Domestic	14.31	15.86	15.73	15.44	18.27	18%
Total Consumption	**58.23**	**55.56**	**52.21**	**50.83**	**51.53**	**1%**

- Total cigarette consumption increased by 1% to 51.5bn, with reduced legal domestic consumption and non-domestic legal consumption (ND(L)) more than offset by increased illicit consumption (C&C)
- C&C formed 83% of total inflows. As in 2020, Counterfeit remained the largest element of illicit consumption, with inflows increasing by c.2.0bn cigarettes
- Outflows from France declined further in 2021, primarily driven by lower flows to the Netherlands and Belgium

Total inflows by country of origin – 2017-2021[1][a]

Inflows to France					
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**
Counterfeit	0.16	0.46	0.84	5.98	7.96
Spain	2.84	3.61	4.08	2.77	2.56
Luxembourg	1.09	1.15	1.26	0.72	1.10
Duty Free Labelled	1.44	1.33	1.15	0.51	0.85
Belgium	1.28	1.42	1.89	1.05	0.70
Other	7.50	7.89	6.49	4.41	5.11
Total Inflows	**14.31**	**15.86**	**15.73**	**15.44**	**18.27**

Total outflows by destination – 2017-2021[1][a]

Outflows from France					
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**
Switzerland	(0.07)	(0.07)	(0.29)	(0.06)	(0.07)
Germany	(0.06)	(0.06)	(0.08)	(0.06)	(0.05)
Netherlands	(0.15)	(0.10)	(0.08)	(0.16)	(0.04)
Belgium	(0.03)	(0.06)	(0.13)	(0.07)	(0.03)
Other	(0.15)	(0.25)	(0.15)	(0.07)	(0.04)
Total Outflows	**(0.45)**	**(0.53)**	**(0.73)**	**(0.42)**	**(0.22)**

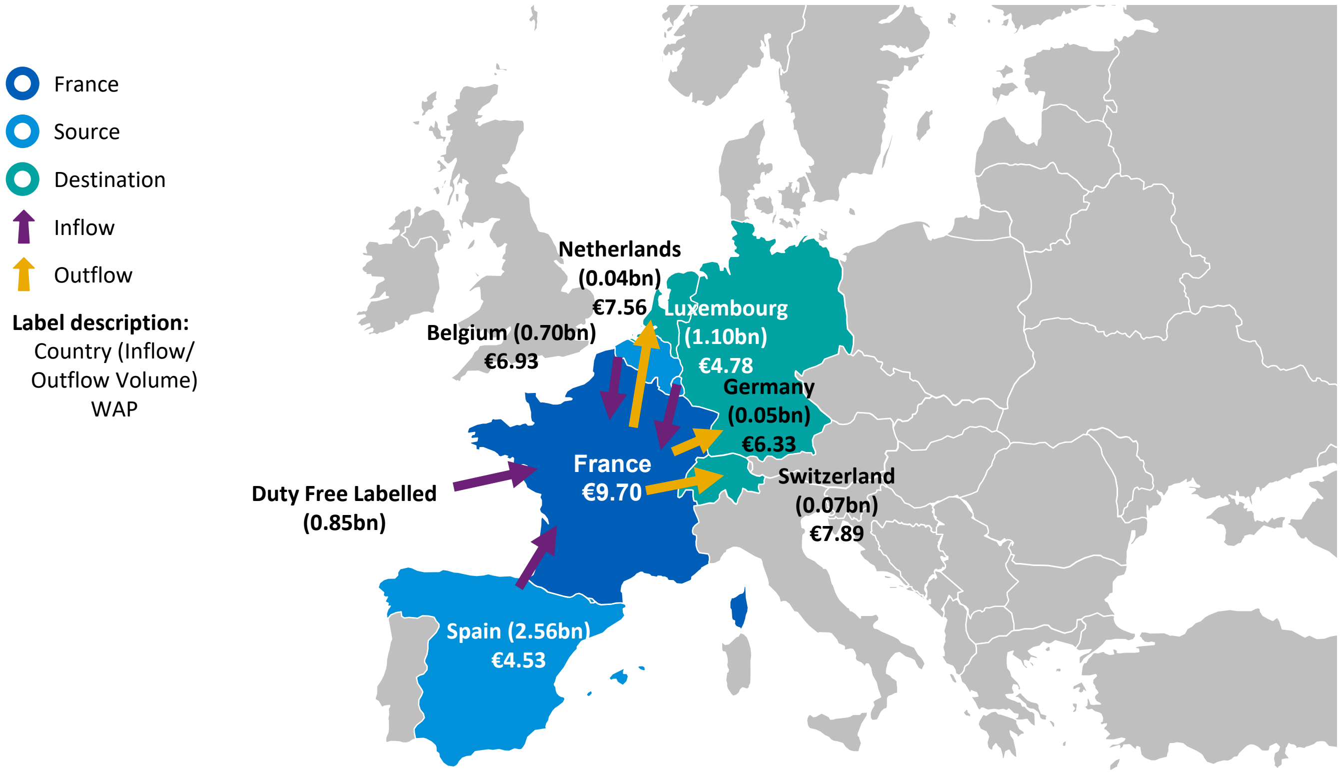
Note: (a) The inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows

Source: (1) KPMG EU Flows Calculation, 2017-21; (2) In Market Sales data;

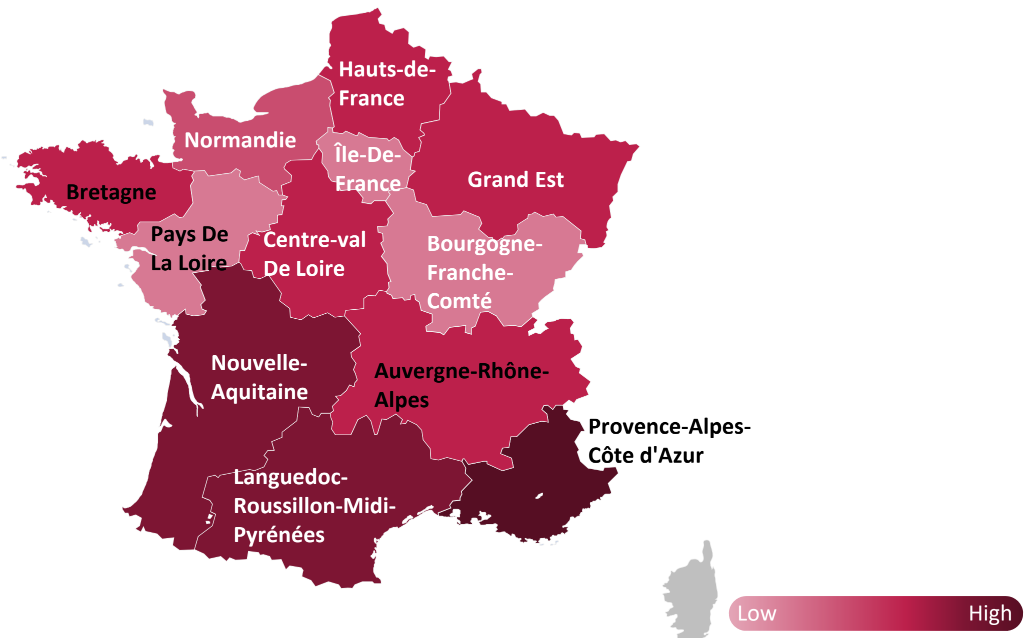
France

Key flows and C&C consumption patterns

Key inflows and outflows[(1)(a)]



C&C % by region[(1)(b)(c)]



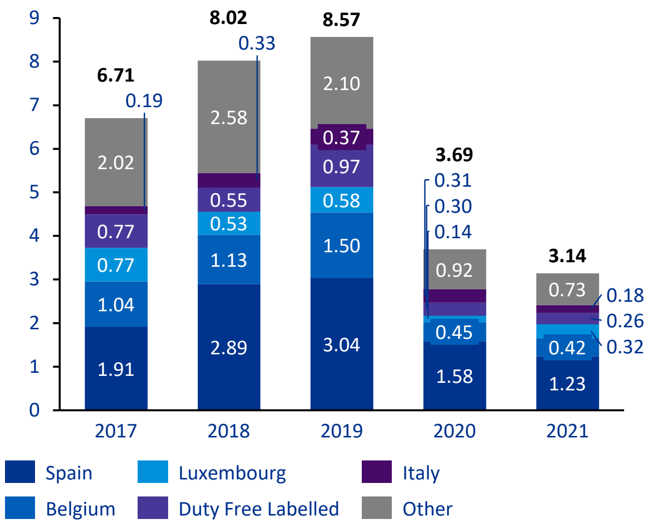
Note: (a) For countries with both inflows and outflows, only the larger of the two flows have been shown (b) C&C scale is relative to this market and is not comparable with other markets in the study, (c) Data not available for regions in grey

Source: (1) KPMG EU Flows Calculation 2021

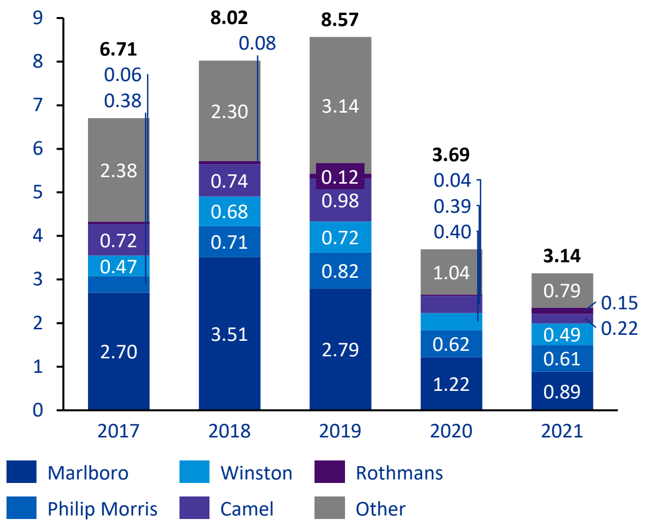
France

ND(L) and C&C flows

ND(L) by country of origin – 2017-2021 (bn cigarettes)(1)



ND(L) by brand – 2017-2021 (bn cigarettes)(1)



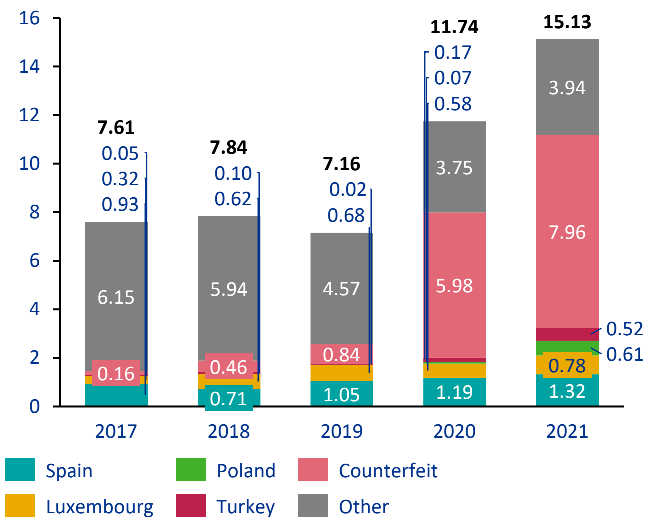
— Legal inflows (ND(L)) declined by 15% in 2021, with inflows from Spain and Italy accounting for most of the reduction, alongside decreased inflows from a number of smaller markets aggregated within 'Other'

— Increasing C&C in 2021 was primarily driven by increased Counterfeit flows, which represented 15.4% of the total cigarettes consumed in France in 2021

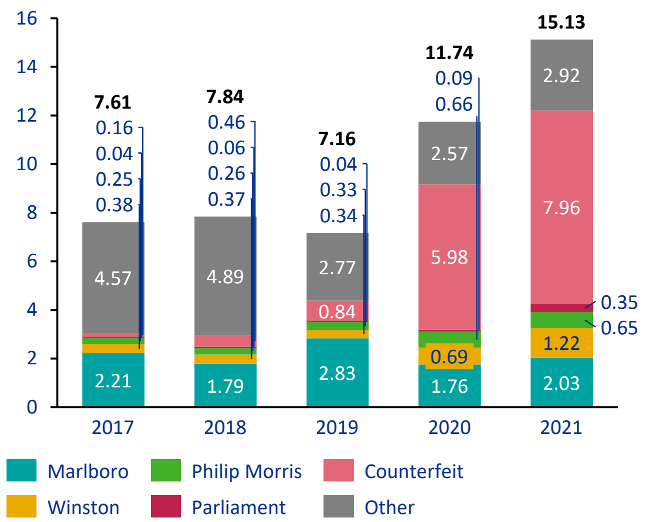
  – Counterfeit volumes increased in each of the four empty pack collections undertaken in 2021, rising from 9.6% of total cigarette consumption in the first collection to 17.3% in the fourth

  – 67% of all Counterfeit packs identified in 2021 bore Duty Free labelling

C&C by country of origin – 2017-2021 (bn cigarettes)(1)(a)



C&C by brand – 2017-2021 (bn cigarettes)(1)(a)



Note: (a) Only includes Counterfeit volumes related to brands of manufactures who participate in the empty pack/yellow bag surveys.
Source: (1) KPMG EU Flows Calculation, 2017-21;

Germany

Germany

C&C cigarette consumption and total consumption

80.2bn

Cigarettes consumed

-4.60bn on 2020

1.7bn

C&C cigarettes consumed

-1.93bn on 2020

2.1%

Of total consumption was C&C

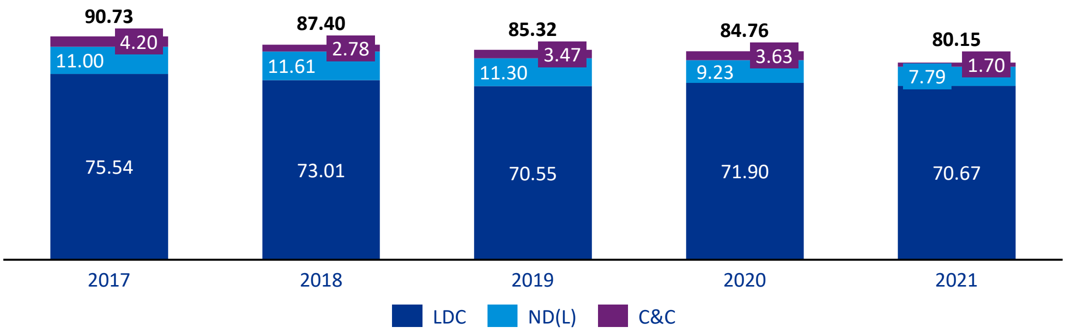
-2.17%pts on 2020

€364m

Total tax revenue lost from C&C

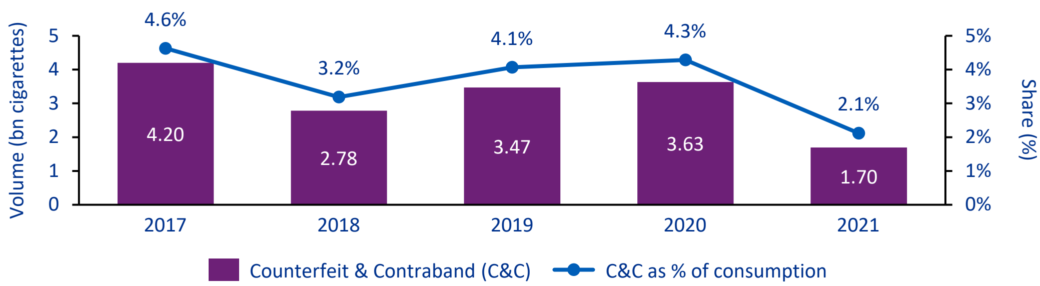
-€399m on 2020

Total consumption – 2017-2021 (bn cigarettes)(1)(2)

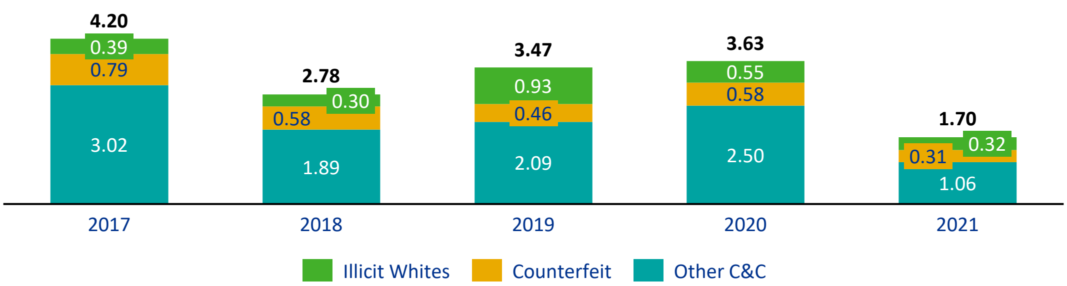


- C&C share of total consumption declined to 2.1% in 2021, the lowest in the reporting period
- All components of illicit consumption declined

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2017-2021(1)(2)



C&C consumption by type – 2017-2021 (bn cigarettes)(1)(2)(a)



Note: (a) C&C breakdown chart only includes Counterfeit volumes related to brands of manufactures who participate in the empty pack/yellow bag surveys; (b) Total tax revenue lost represents estimated excise and VAT if C&C volumes had been consumed legally in the country of study; (c) Due to rounding, segments highlighted in the charts may not add up to the total and year-on-year changes highlighted in the sidebar may differ from the charts

Source: (1) KPMG EU Flows Calculation, 2017-21; (2) In Market Sales data

Germany

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2017-2021[(1)(2)]

Total Germany Consumption						
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**	**2020-21 (%)**
Legal Domestic Sales (LDS)	76.74	74.76	72.35	72.96	71.62	(2%)
Outflows	(1.20)	(1.75)	(1.80)	(1.06)	(0.95)	(11%)
Legal Domestic Consumption (LDC)	75.54	73.01	70.55	71.90	70.67	(2%)
Non-Domestic Legal (ND(L))	11.00	11.61	11.30	9.23	7.79	(16%)
Counterfeit and Contraband (C&C)	4.20	2.78	3.47	3.63	1.70	(53%)
Total Non-Domestic	15.19	14.39	14.77	12.86	9.49	(26%)
Total Consumption	**90.73**	**87.40**	**85.32**	**84.76**	**80.15**	**(5%)**

- Total cigarette consumption declined by c.5% in 2021, as a result of lower non-domestic consumption and declining LDS
- Inflows from all major sources declined in 2021. Neighbouring Poland and Czech Republic remained the main sources of inflows, accounting for 65% of total inflows in 2021, a similar share to that seen in 2020
- The majority of Czech and Polish inflows are considered legal given the high volumes of cross border travel
- Total outflows from Germany declined in 2021

Total inflows by country of origin – 2017-2021[(1)(a)]

Inflows to Germany					
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**
Poland	4.46	4.20	4.94	4.66	3.82
Czech Republic	5.00	4.68	4.09	3.68	2.31
Duty Free Labelled	1.22	1.29	1.44	0.86	0.53
Luxembourg	0.34	0.33	0.35	0.43	0.37
Counterfeit	0.79	0.58	0.46	0.58	0.31
Other	3.39	3.30	3.50	2.64	2.15
Total Inflows	**15.19**	**14.39**	**14.77**	**12.86**	**9.49**

Total outflows by destination – 2017-2021[(1)(a)]

Outflows from Germany					
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**
Netherlands	(0.26)	(0.35)	(0.38)	(0.22)	(0.23)
Czech Republic	(0.01)	(0.04)	(0.06)	(0.03)	(0.18)
France	(0.34)	(0.67)	(0.71)	(0.33)	(0.12)
Austria	(0.05)	(0.07)	(0.08)	(0.05)	(0.10)
Switzerland	(0.21)	(0.19)	(0.21)	(0.16)	(0.10)
Other	(0.33)	(0.43)	(0.35)	(0.28)	(0.21)
Total Outflows	**(1.20)**	**(1.75)**	**(1.80)**	**(1.06)**	**(0.95)**

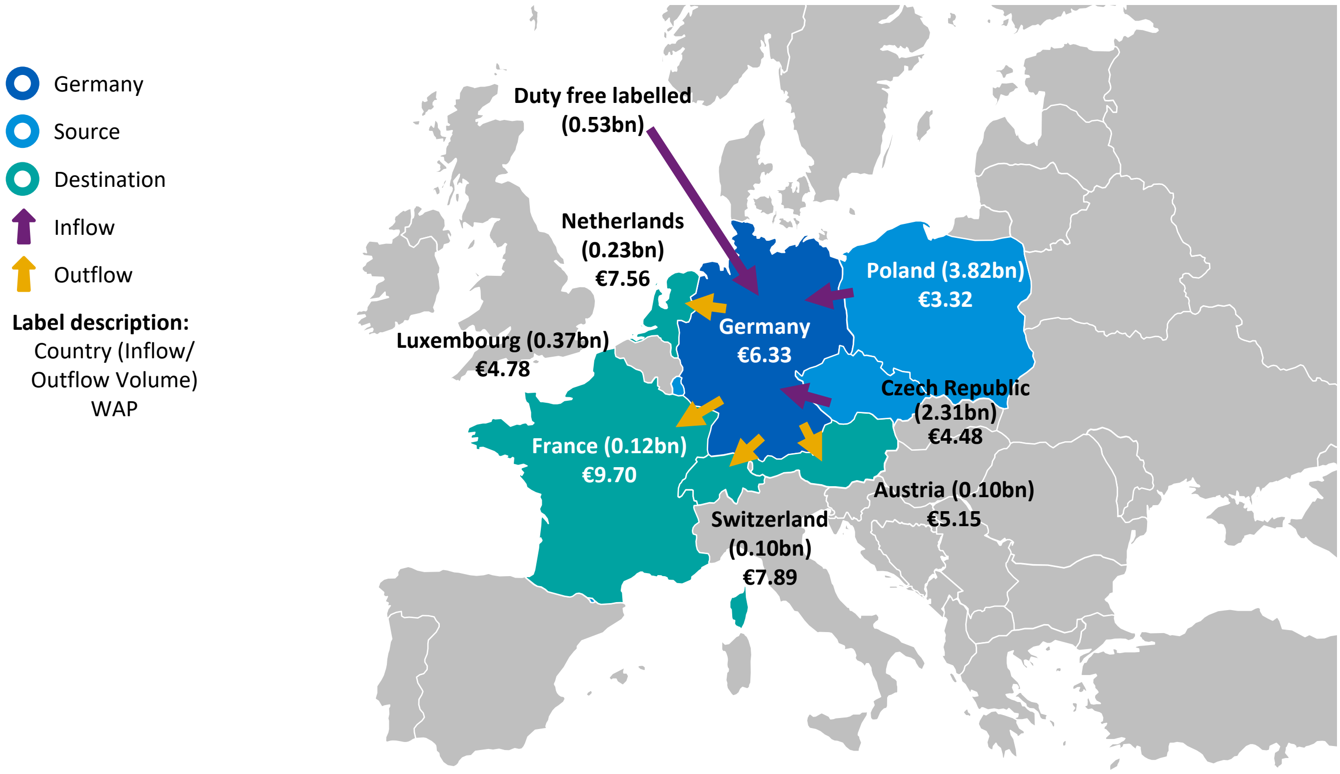
Note: (a) The inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows

Source: (1) KPMG EU Flows Calculation, 2017-21; (2) In Market Sales data;

Germany

Key flows and C&C consumption patterns

Key inflows and outflows[(1)(2)(a)(b)]



C&C % by region[(1)(c)(d)]

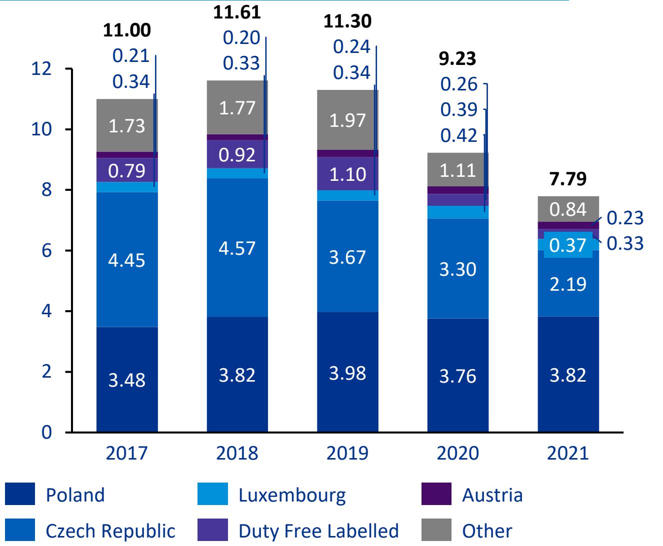
Note: (a) For countries with both inflows and outflows, only the larger of the two flows have been shown; (b) Germany weighted average price (WAP) is for the full year 2021. This differs from the WAP used to estimate tax loss, which is from European Commission Excise Duty Tables available as of July 2021; (c) C&C scale is relative to this market and is not comparable with other markets in the study, (d) Data not available for regions in grey

Source: (1) KPMG EU Flows Calculation 2021; (2) German WAP sourced from: 'Sales of Tobacco Products - Subject Series 14 Series 9.1.1 – 2021', destatis.de

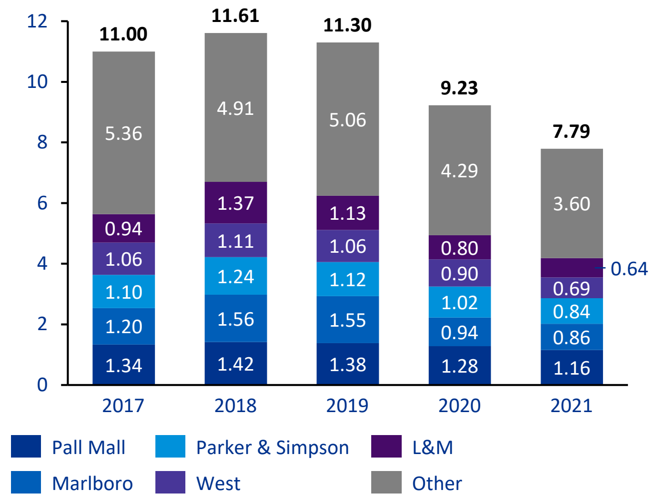
Germany

ND(L) and C&C flows

ND(L) by country of origin – 2017-2021 (bn cigarettes)[1]



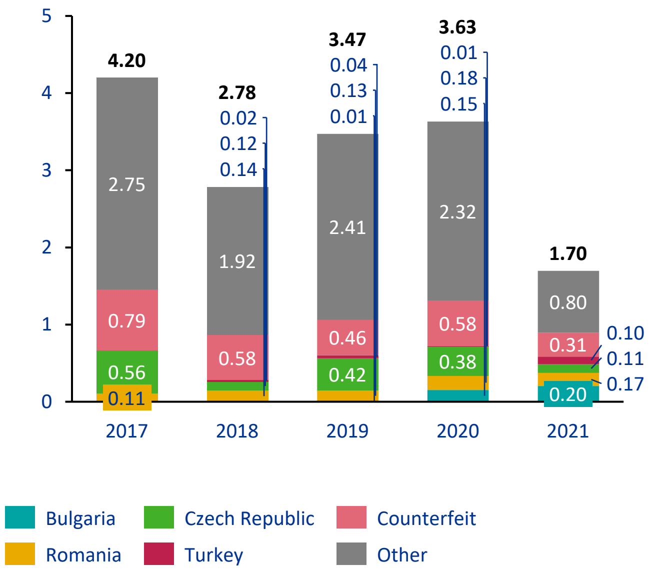
ND(L) by brand – 2017-2021 (bn cigarettes)[1]



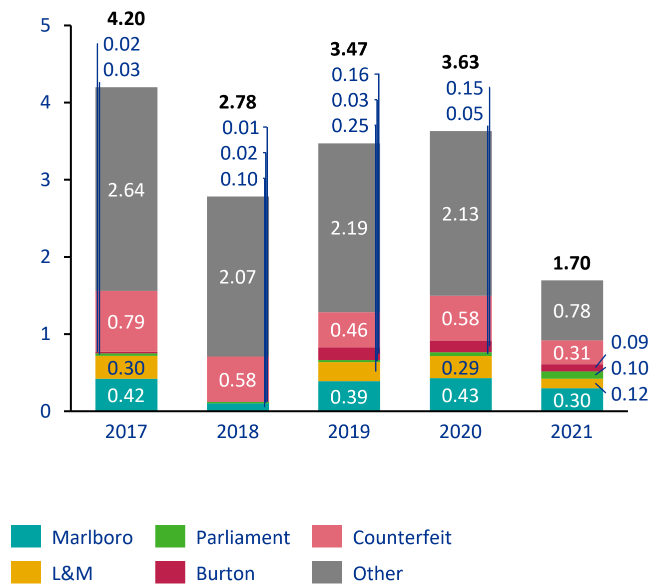
— ND(L) declined by 16% in 2021, with the largest market-specific decline in flows from Czech Republic

— A decline in C&C from smaller inflow markets (grouped together under 'Other') was the main driver of an overall C&C decline in 2021

C&C by country of origin – 2017-2021 (bn cigarettes)[1](a)



C&C by brand – 2017-2021 (bn cigarettes)[1](a)



Note: (a) Only includes Counterfeit volumes related to brands of manufactures who participate in the empty pack/yellow bag surveys.
Source: (1) KPMG EU Flows Calculation, 2017-21;


Greece

Greece

C&C cigarette consumption and total consumption

14.2bn

Cigarettes consumed

+0.47bn on 2020

3.4bn

C&C cigarettes consumed

+0.31bn on 2020

23.9%

Of total consumption was C&C

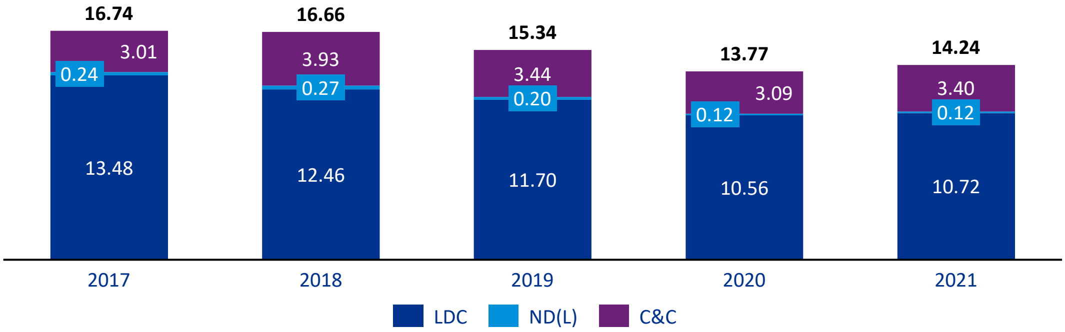
+1.45%pts on 2020

€604m

Total tax revenue lost from C&C

+€54m on 2020

Total consumption – 2017-2021 (bn cigarettes)(1)(2)

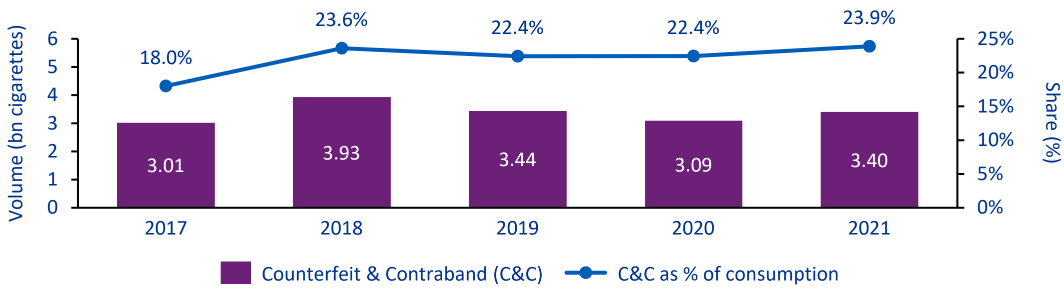


— C&C increased to 3.4bn cigarettes in 2021, representing 23.9% of total cigarette consumption, the second highest level of C&C incidence in the EU27

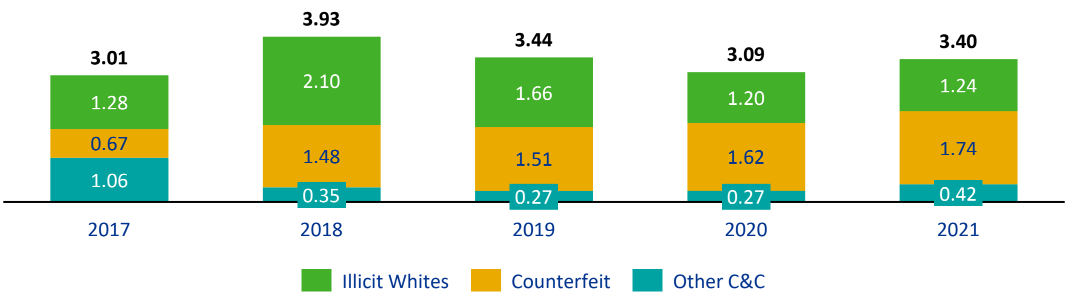
— 87% of C&C flows in 2021 were Counterfeit or Illicit Whites

— Greece recorded the second largest Counterfeit volume in the EU27, after France

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2017-2021(1)(2)



C&C consumption by type – 2017-2021 (bn cigarettes)(1)(2)(a)



Note: (a) C&C breakdown chart only includes Counterfeit volumes related to brands of manufactures who participate in the empty pack/yellow bag surveys; (b) Total tax revenue lost represents estimated excise and VAT if C&C volumes had been consumed legally in the country of study ; (c) Due to rounding, segments highlighted in the charts may not add up to the total and year-on-year changes highlighted in the sidebar may differ from the charts

Source: (1) KPMG EU Flows Calculation, 2017-21; (2) In Market Sales data

Greece

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2017-2021[1][2]

Total Greece Consumption						
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**	**2020-21 (%)**
Legal Domestic Sales (LDS)	13.82	12.80	12.14	10.94	11.12	2%
Outflows	(0.34)	(0.34)	(0.44)	(0.38)	(0.40)	4%
Legal Domestic Consumption (LDC)	13.48	12.46	11.70	10.56	10.72	2%
Non-Domestic Legal (ND(L))	0.24	0.27	0.20	0.12	0.12	(5%)
Counterfeit and Contraband (C&C)	3.01	3.93	3.44	3.09	3.40	10%
Total Non-Domestic	3.25	4.20	3.64	3.21	3.52	9%
Total Consumption	**16.74**	**16.66**	**15.34**	**13.77**	**14.24**	**3%**

- Total cigarette consumption increased by 3%, driven by an increase in legal domestic sales and non-domestic consumption
- Inflows to Greece were primarily comprised of Counterfeit and Illicit Whites
- Outflows from Greece increased by 4% to 0.40bn cigarettes
  - Outflows from Greece are principally to countries where Greece is a popular holiday destination, such as the UK, Germany, France and the Netherlands

Total inflows by country of origin – 2017-2021[1][a]

Inflows to Greece					
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**
Counterfeit	0.67	1.48	1.51	1.62	1.74
IWs with no country-specific labelling	1.27	2.10	1.61	1.15	1.21
Other	1.31	0.62	0.52	0.45	0.57
Total Inflows	**3.25**	**4.20**	**3.64**	**3.21**	**3.52**

Total outflows by destination – 2017-2021[1][a]

Outflows from Greece					
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**
UK	(0.08)	(0.02)	(0.07)	(0.02)	(0.14)
Germany	(0.12)	(0.13)	(0.15)	(0.12)	(0.10)
France	(0.04)	(0.06)	(0.05)	(0.04)	(0.05)
Netherlands	(0.01)	(0.02)	(0.02)	(0.03)	(0.03)
Other	(0.08)	(0.12)	(0.14)	(0.17)	(0.07)
Total Outflows	**(0.34)**	**(0.34)**	**(0.44)**	**(0.38)**	**(0.40)**

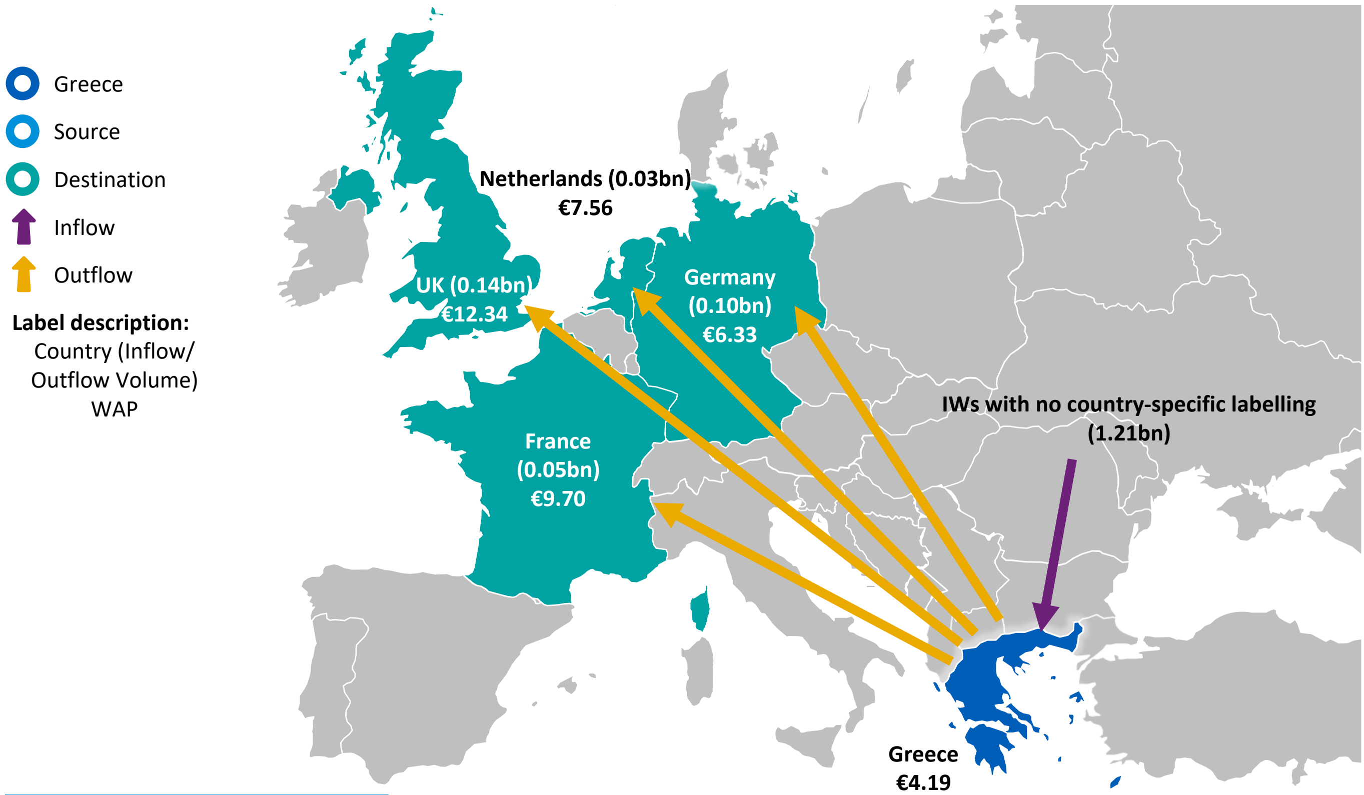
Note: (a) The inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows

Source: (1) KPMG EU Flows Calculation, 2017-21; (2) In Market Sales data;

Greece

Key flows and C&C consumption patterns

Key inflows and outflows[(1)(a)]



C&C % by region[(1)(b)]

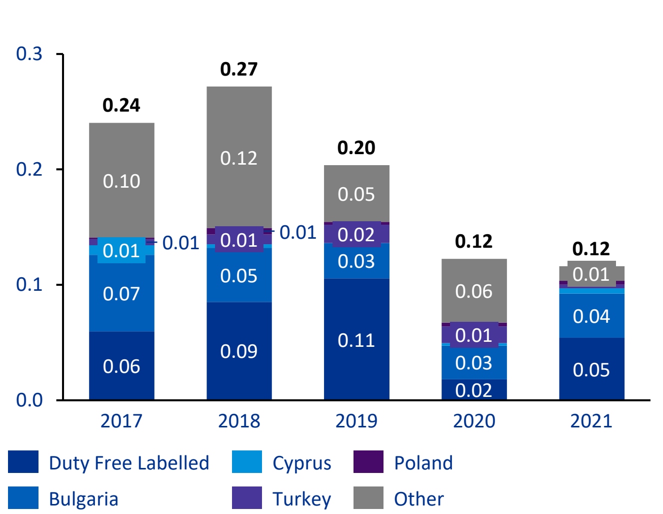
Note: (a) For countries with both inflows and outflows, only the larger of the two flows have been shown (b) C&C scale is relative to this market and is not comparable with other markets in the study

Source: (1) KPMG EU Flows Calculation 2021

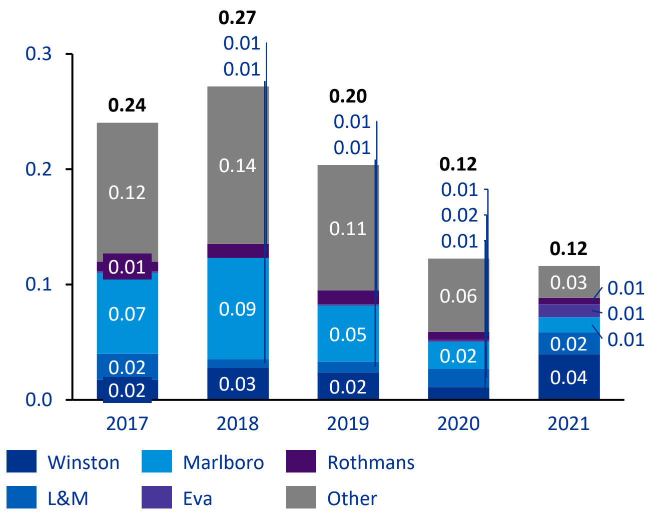
Greece

ND(L) and C&C flows

ND(L) by country of origin – 2017-2021 (bn cigarettes)[1]



ND(L) by brand – 2017-2021 (bn cigarettes)[1]

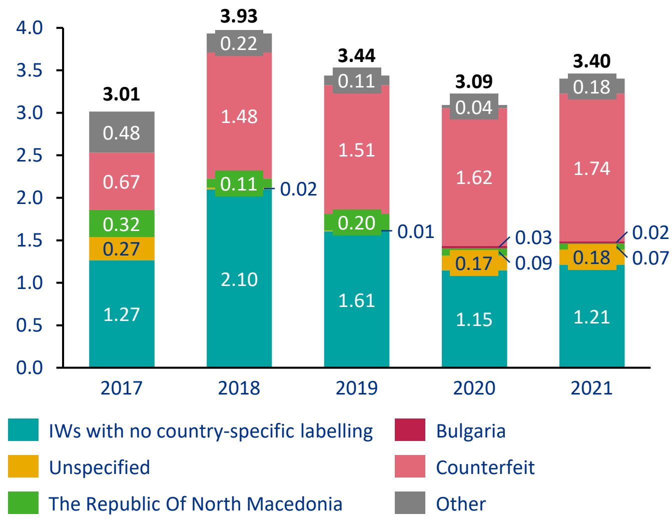


— Non-domestic legal inflows remained stable in 2021 with Duty Free and Bulgaria cumulatively accounting for 80% of total non-domestic legal inflows

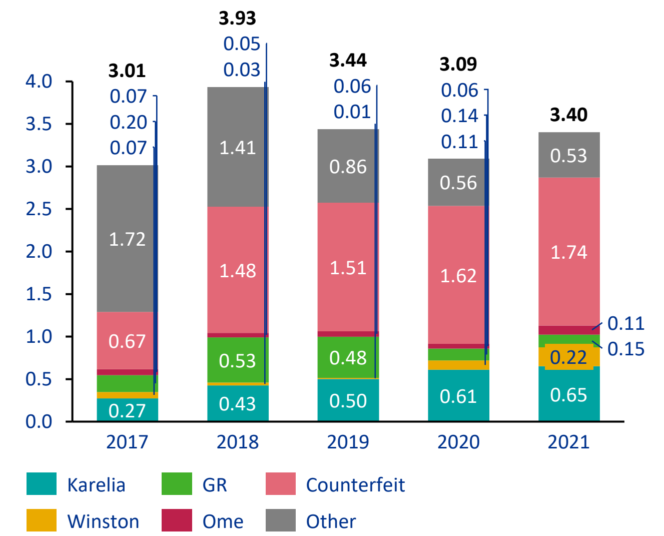
— Excluding Counterfeit brands, which constitute 51% of C&C, Karelia was the most prevalent C&C brand, accounting for 19% of total C&C in 2021

— In line with prior years, there have been continued successful raids on illegal cigarette factories, warehouses and transport in Greece in 2021, including a seizure of 0.3bn illegal cigarettes in a single operation in May[2]

C&C by country of origin – 2017-2021 (bn cigarettes)[1](a)



C&C by brand – 2017-2021 (bn cigarettes)[1](a)



Note: (a) Only includes Counterfeit volumes related to brands of manufactures who participate in the empty pack/yellow bag surveys.
Source: (1) KPMG EU Flows Calculation, 2017-21; (2) https://greekreporter.com/2021/05/14/greece-busts-international-cigarette-smuggling-ring/

Hungary

Hungary

C&C cigarette consumption and total consumption

7.1bn

Cigarettes consumed

-0.79bn on 2020

0.3bn

C&C cigarettes consumed

-0.02bn on 2020

4.2%

Of total consumption was C&C

+0.13%pts on 2020

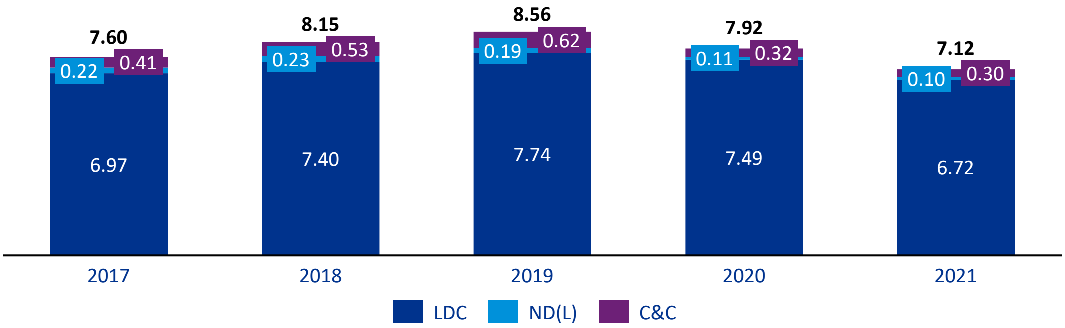
€48m

(Ft17,526m)[1]

Total tax revenue lost from C&C

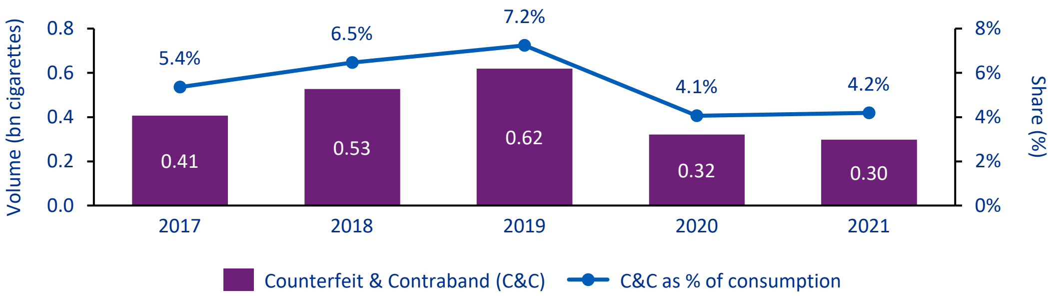
-€0.3m on 2020

Total consumption – 2017-2021 (bn cigarettes)[(1)(2)]

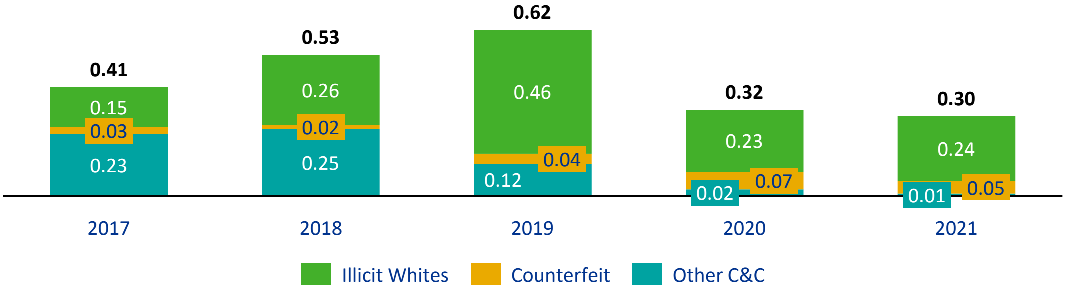


- C&C, and its share as a percentage of total consumption remained relatively stable at c.4% in 2021
- Illicit consumption remained primarily driven by Illicit Whites inflows

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2017-2021[(1)(2)]



C&C consumption by type – 2017-2021 (bn cigarettes)[(1)(2)(a)]



Note: (a) C&C breakdown chart only includes Counterfeit volumes related to brands of manufactures who participate in the empty pack/yellow bag surveys. (b) Total tax revenue lost represents estimated excise and VAT if C&C volumes had been consumed legally in the country of study ; (c) Due to rounding, segments highlighted in the charts may not add up to the total and year-on-year changes highlighted in the sidebar may differ from the charts

Source: (1) KPMG EU Flows Calculation, 2017-21; (2) In Market Sales data

Hungary

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2017-2021(1)(2)

Total Hungary Consumption						
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**	**2020-21 (%)**
Legal Domestic Sales (LDS)	7.59	7.99	8.21	7.73	6.88	(11%)
Outflows	(0.62)	(0.59)	(0.46)	(0.25)	(0.17)	(33%)
Legal Domestic Consumption (LDC)	6.97	7.40	7.74	7.49	6.72	(10%)
Non-Domestic Legal (ND(L))	0.22	0.23	0.19	0.11	0.10	(4%)
Counterfeit and Contraband (C&C)	0.41	0.53	0.62	0.32	0.30	(7%)
Total Non-Domestic	0.63	0.76	0.81	0.43	0.40	(6%)
Total Consumption	**7.60**	**8.15**	**8.56**	**7.92**	**7.12**	**(10%)**

— Total consumption declined by 10% in 2021, principally driven by declining legal domestic sales

— Inflows declined in 2021, with an increase in inflows of IWs with no country-specific labelling partly offset by declining inflows from Belarus, neighbouring Ukraine, historically a major source country, and Counterfeit

— Outflows continued their long term declining trend and fell by 33% in 2021, mainly driven by reduced outflows to neighbouring Austria

Total inflows by country of origin – 2017-2021(1)(2)(a)

Inflows to Hungary					
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**
IWs with no country-specific labelling	0.13	0.29	0.44	0.16	0.21
Counterfeit	0.03	0.02	0.04	0.07	0.05
Belarus	0.01	0.01	0.00	0.06	0.03
Ukraine	0.25	0.20	0.17	0.04	0.02
Duty Free Labelled	0.03	0.03	0.02	0.02	0.01
Other	0.18	0.21	0.13	0.09	0.09
Total Inflows	**0.63**	**0.76**	**0.81**	**0.43**	**0.40**

Total outflows by destination – 2017-2021(1)(2)(a)

Outflows from Hungary					
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**
Austria	(0.31)	(0.24)	(0.23)	(0.14)	(0.06)
France	(0.01)	(0.03)	(0.02)	(0.01)	(0.03)
Germany	(0.09)	(0.11)	(0.07)	(0.04)	(0.02)
Slovakia	(0.02)	(0.01)	(0.01)	(0.01)	(0.01)
Other	(0.19)	(0.20)	(0.14)	(0.04)	(0.04)
Total Outflows	**(0.62)**	**(0.59)**	**(0.46)**	**(0.25)**	**(0.17)**

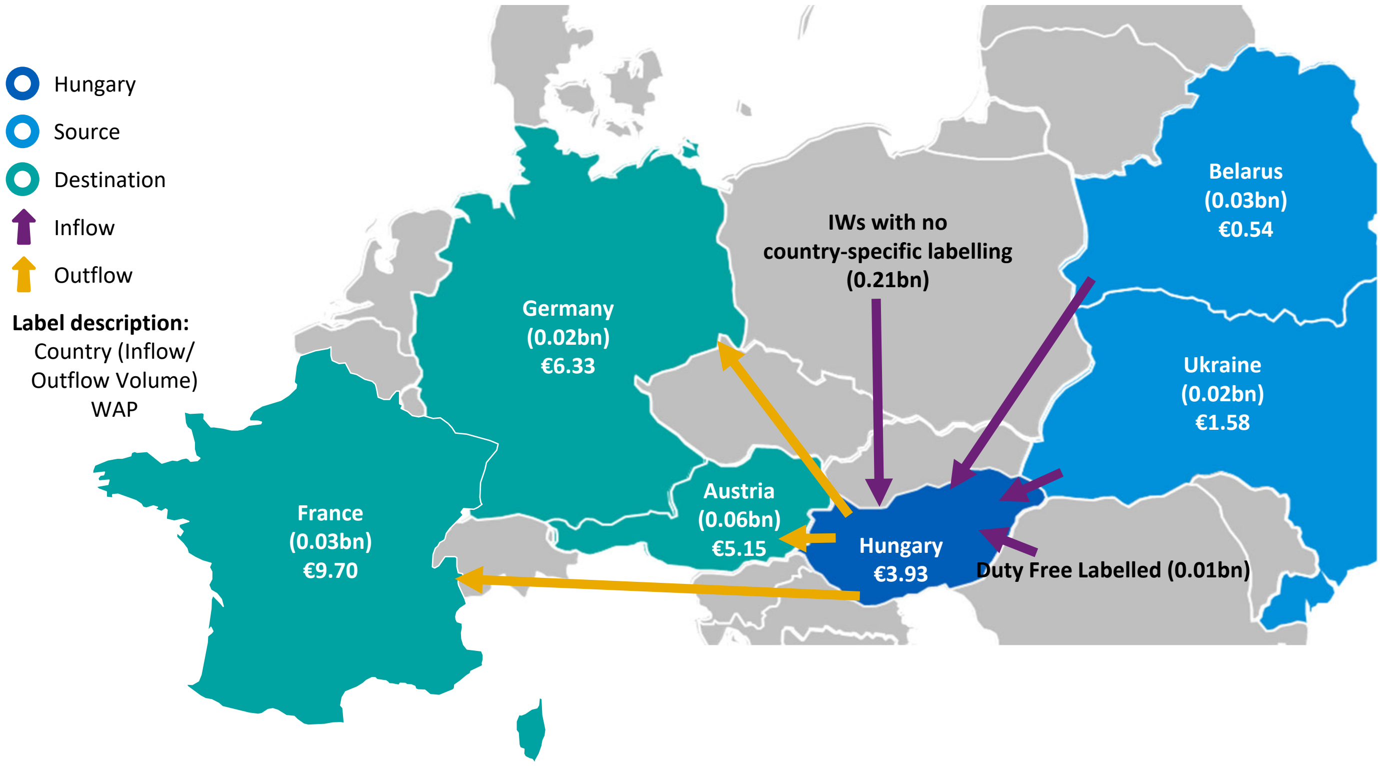
Note: (a) The inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows

Source: (1) KPMG EU Flows Calculation, 2017-21; (2) In Market Sales data;

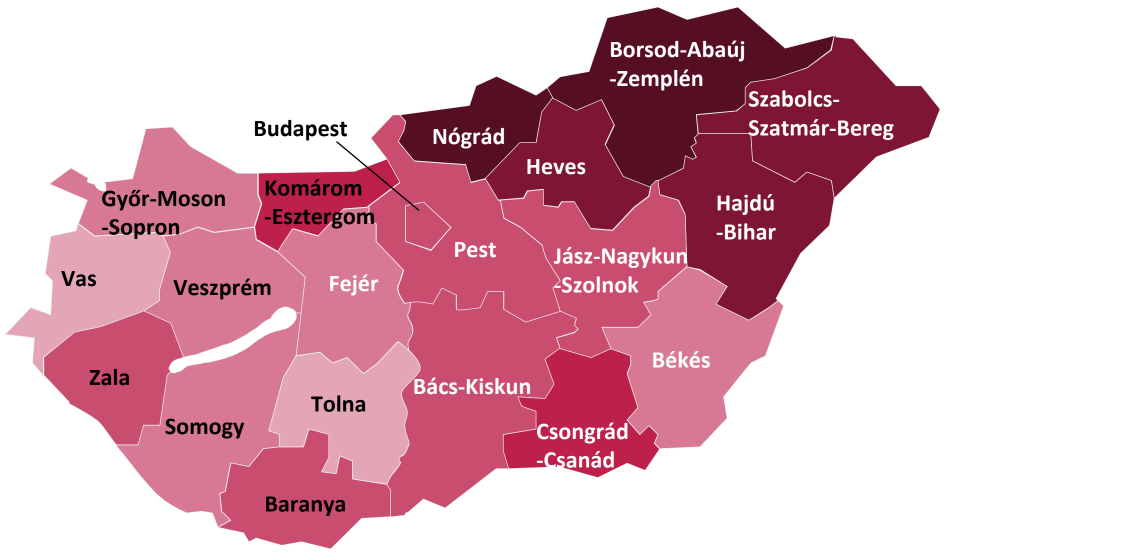
Hungary

Key flows and C&C consumption patterns

Key inflows and outflows[1](a)



C&C % by region[1](b)(c)



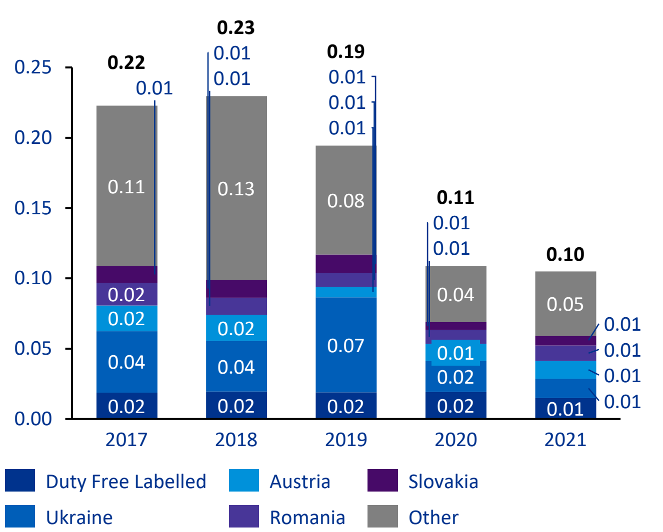
Note: (a) For countries with both inflows and outflows, only the larger of the two flows have been shown (b) C&C scale is relative to this market and is not comparable with other markets in the study, (c) Data not available for regions in grey

Source: (1) KPMG EU Flows Calculation 2021

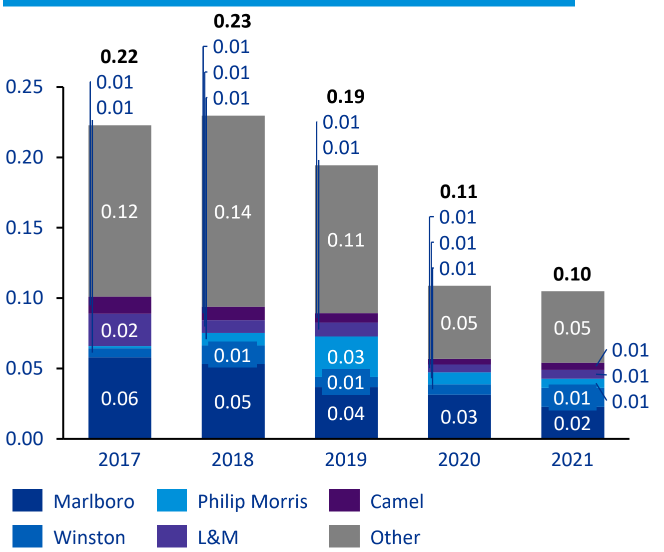
Hungary

ND(L) and C&C flows

ND(L) by country of origin – 2017-2021 (bn cigarettes)(1)



ND(L) by brand – 2017-2021 (bn cigarettes)(1)



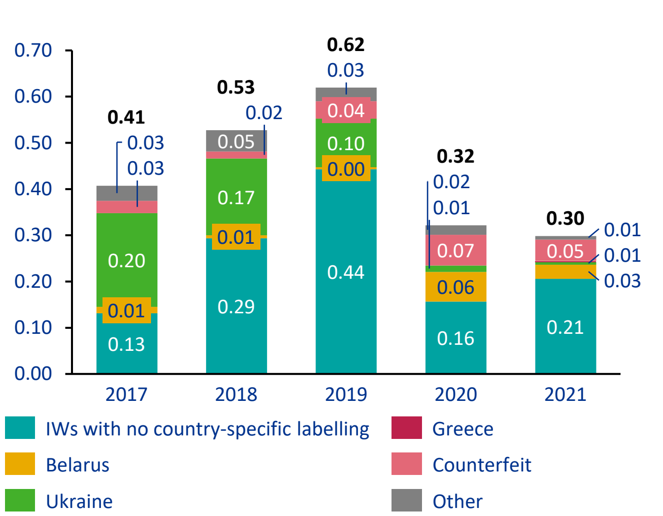
— Non domestic legal (ND(L)) flows remained in line with 2020 volumes

— Flows from Illicit Whites with no country-specific labelling increased by 0.05bn (31%), but remained below the pre-pandemic levels

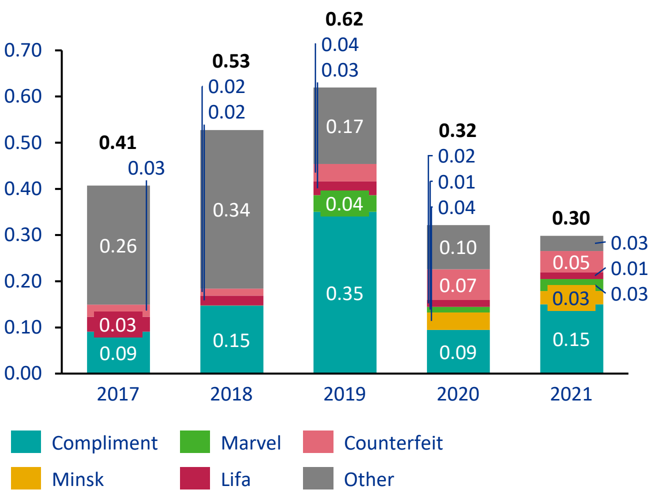
— 'Compliment' remained the most prevalent illicit brand in 2021, accounting for half of all C&C flows

— C&C consumption was highest in the North Eastern regions of the country

C&C by country of origin – 2017-2021 (bn cigarettes)(1)(a)



C&C by brand – 2017-2021 (bn cigarettes)(1)(a)



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, 2017-21;

Ireland

Ireland

3.2bn

Cigarettes consumed

-0.24bn on 2020

0.5bn

C&C cigarettes consumed

-0.06bn on 2020

16.8%

Of total consumption was C&C

-0.46%pts on 2020

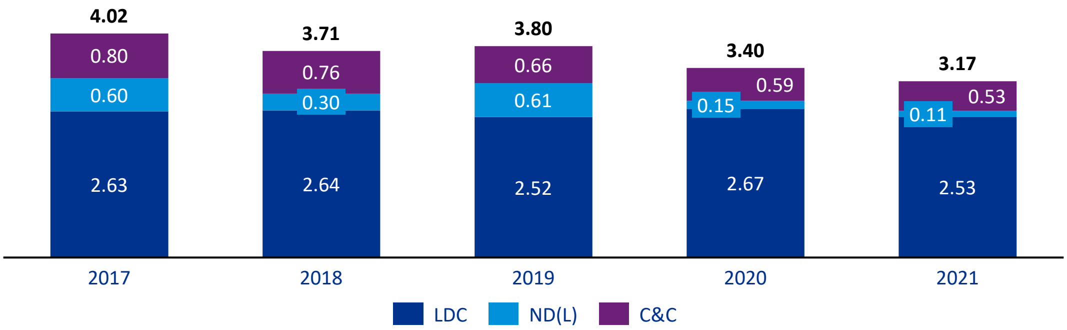
€283m

Total tax revenue lost from C&C

-€18m on 2020

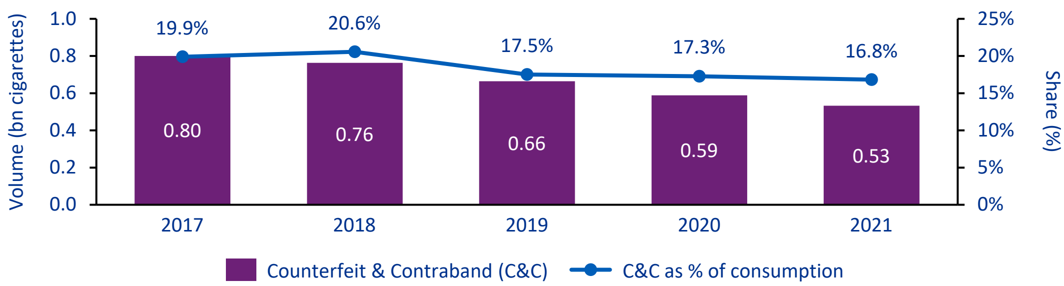
C&C cigarette consumption and total consumption

Total consumption – 2017-2021 (bn cigarettes)(1)(2)

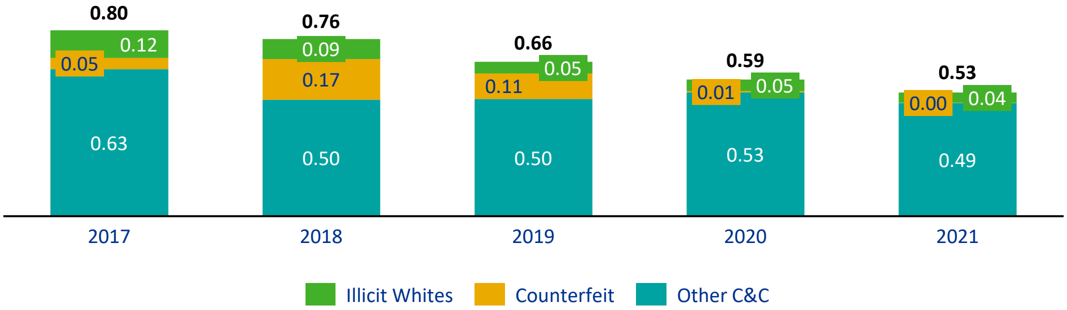


- C&C declined to 16.8% of total consumption in 2021, continuing the declining trend observed since 2019
- The 2021 reduction in C&C was primarily driven by declining Other C&C inflows

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2017-2021(1)(2)



C&C consumption by type – 2017-2021 (bn cigarettes)(1)(2)(a)



Note: (a) C&C breakdown chart only includes Counterfeit volumes related to brands of manufactures who participate in the empty pack/yellow bag surveys; (b) Total tax revenue lost represents estimated excise and VAT if C&C volumes had been consumed legally in the country of study ; (c) Due to rounding, segments highlighted in the charts may not add up to the total and year-on-year changes highlighted in the sidebar may differ from the charts

Source: (1) KPMG EU Flows Calculation, 2017-21; (2) In Market Sales data

Ireland

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2017-2021[1][2]

Total Ireland Consumption						
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**	**2020-21 (%)**
Legal Domestic Sales (LDS)	2.73	2.75	2.55	2.70	2.54	(6%)
Outflows	(0.10)	(0.11)	(0.03)	(0.03)	(0.01)	(69%)
Legal Domestic Consumption (LDC)	2.63	2.64	2.52	2.67	2.53	(5%)
Non-Domestic Legal (ND(L))	0.60	0.30	0.61	0.15	0.11	(27%)
Counterfeit and Contraband (C&C)	0.80	0.76	0.66	0.59	0.53	(9%)
Total Non-Domestic	1.40	1.07	1.27	0.73	0.64	(13%)
Total Consumption	**4.02**	**3.71**	**3.80**	**3.40**	**3.17**	**(7%)**

- Total consumption declined by 7% in 2021 with a decline in both legal domestic sales and non-domestic inflows
- Total inflows to Ireland have declined by 0.09bn, and there appears to have been a mix change. Declining inflows from known sources (e.g. Romania and Poland) were offset by increasing inflows from unknown sources (e.g. Unspecified and Illicit Whites with no country-specific labelling)
- As one of the highest priced markets in the EU, outflows from Ireland are small

Total inflows by country of origin – 2017-2021[1][a]

Inflows to Ireland					
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**
Unspecified	0.01	0.00	0.00	0.11	0.21
Romania	0.10	0.17	0.11	0.19	0.15
Duty Free Labelled	0.20	0.14	0.14	0.08	0.07
Poland	0.10	0.10	0.06	0.09	0.05
IWs with no country-specific labelling	0.07	0.05	0.02	0.01	0.03
Other	0.91	0.61	0.94	0.25	0.14
Total Inflows	**1.40**	**1.07**	**1.27**	**0.73**	**0.64**

Total outflows by destination – 2017-2021[1][a]

Outflows from Ireland					
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**
UK	(0.06)	(0.07)	(0.01)	0.00	(0.01)
Other	(0.04)	(0.04)	(0.02)	(0.03)	(0.00)
Total Outflows	**(0.10)**	**(0.11)**	**(0.03)**	**(0.03)**	**(0.01)**

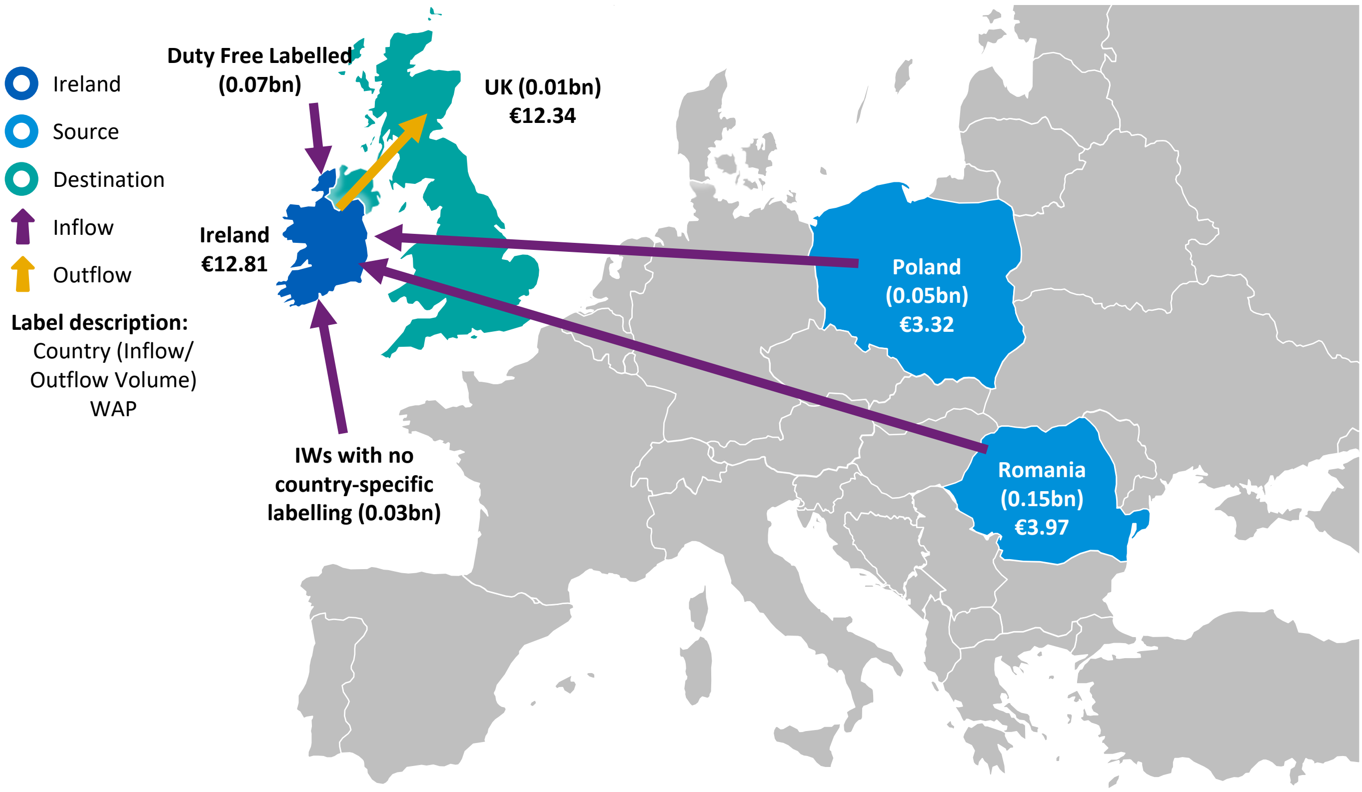
Note: The inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows

Source: (1) KPMG EU Flows Calculation, 2017-21; (2) In Market Sales data;

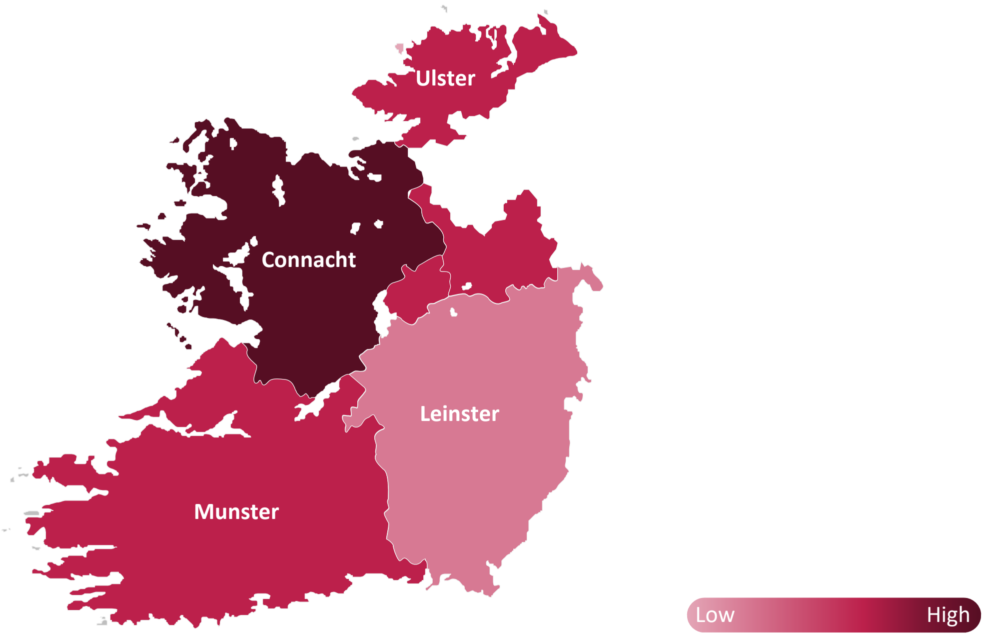
Ireland

Key flows and C&C consumption patterns

Key inflows and outflows[(1)(a)]



C&C % by region[(1)(b)(c)]



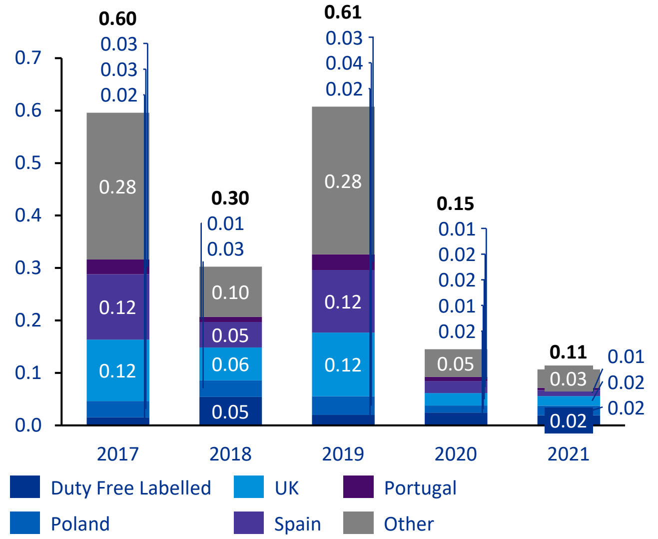
Note: (a) For countries with both inflows and outflows, only the larger of the two flows have been shown (b) C&C scale is relative to this market and is not comparable with other markets in the study, (c) Data not available for regions in grey

Source: (1) KPMG EU Flows Calculation 2021

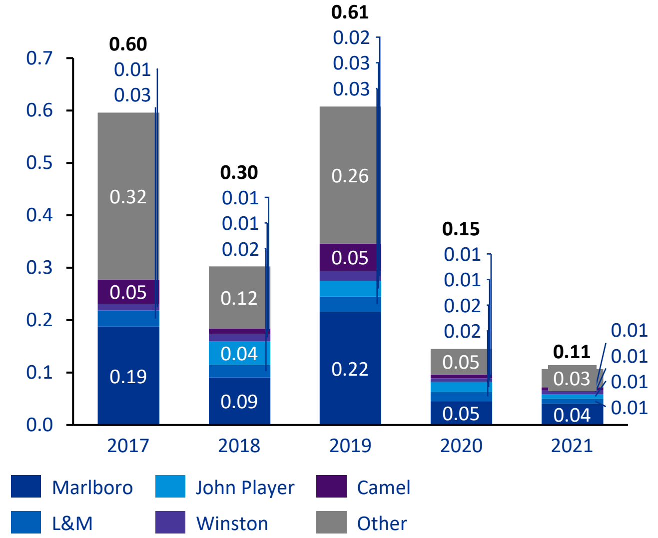
Ireland

ND(L) and C&C flows

ND(L) by country of origin – 2017-2021 (bn cigarettes)(1)



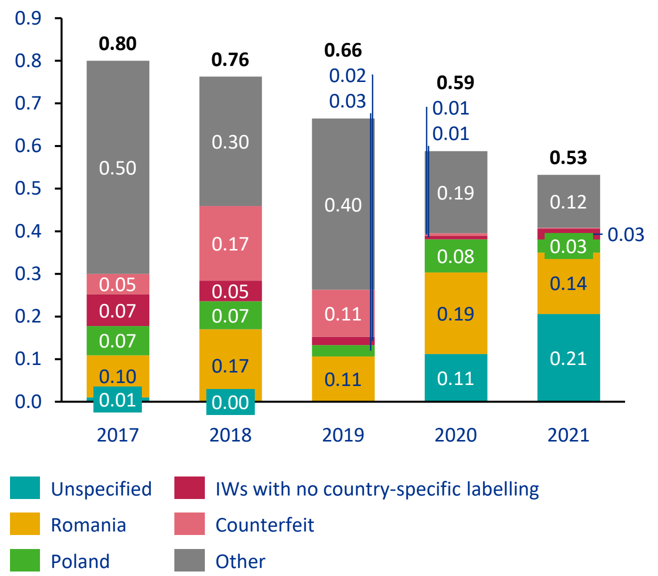
ND(L) by brand – 2017-2021 (bn cigarettes)(1)



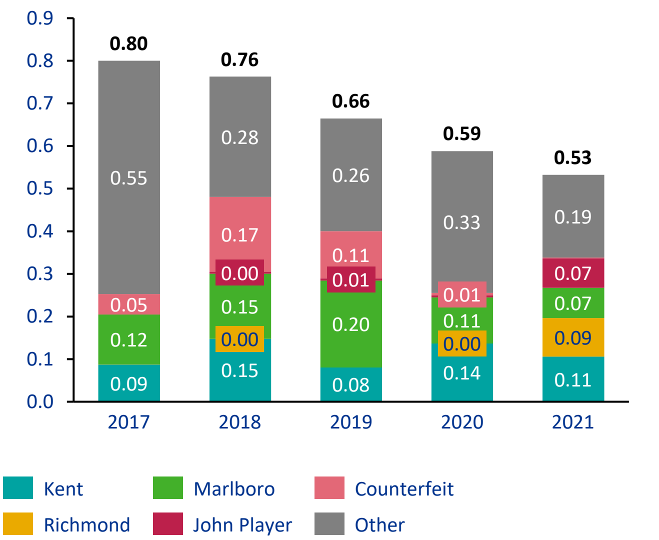
— Non-domestic legal (ND(L)) inflows declined by 27% in 2021 to 0.11bn cigarettes

— Total C&C declined by 0.06bn in 2021 driven by a decline in inflows from Romania, Poland and number of smaller markets within the 'Other' category. However, this decline was party offset by an increase in flows from Unspecified origins

C&C by country of origin – 2017-2021 (bn cigarettes) (1)(a)



C&C by brand – 2017-2021 (bn cigarettes) (1)(a)



Note: (a) Only includes Counterfeit volumes related to brands of manufactures who participate in the empty pack/yellow bag surveys.

Source: (1) KPMG EU Flows Calculation, 2017-21;

Italy

Italy

62.5bn

Cigarettes consumed

-1.17bn on 2020

1.4bn

C&C cigarettes consumed

-0.82bn on 2020

2.2%

Of total consumption was C&C

-1.25%pts on 2020

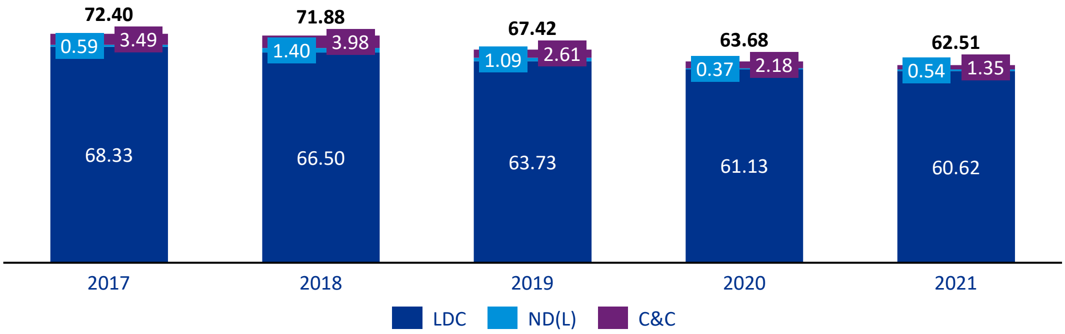
€272m

Total tax revenue lost from C&C

-€155m on 2020

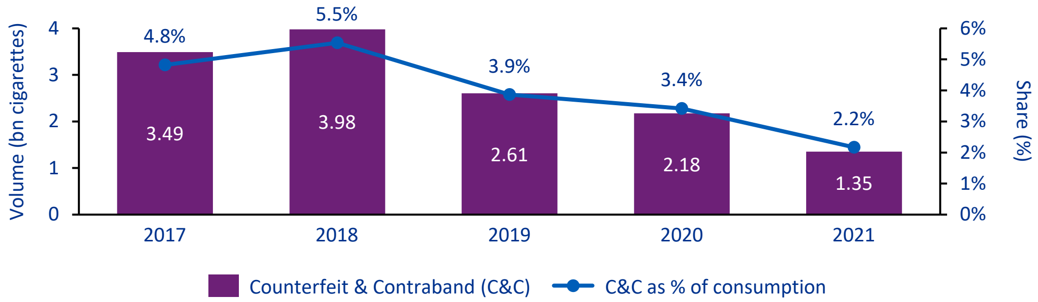
C&C cigarette consumption and total consumption

Total consumption – 2017-2021 (bn cigarettes)(1)(2)

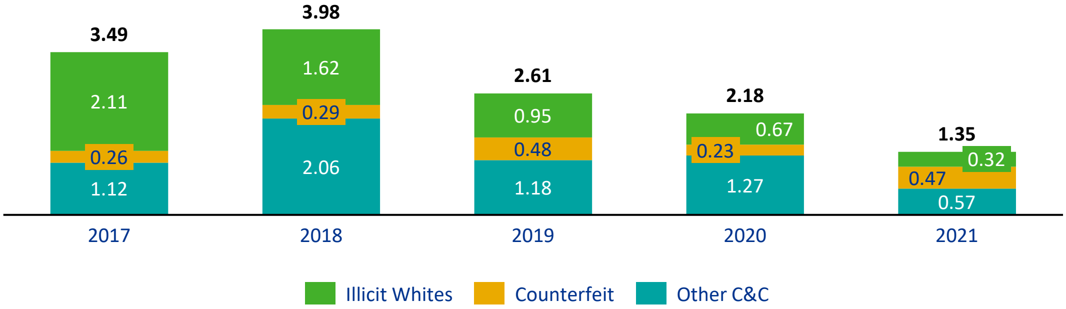


- C&C as a share of total consumption declined to 2.2% in 2021, the lowest level seen in the reporting period
- Illicit Whites and other C&C flows declined, but were partially offset by an increase in Counterfeit

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2017-2021(1)(2)



C&C consumption by type – 2017-2021 (bn cigarettes) (1)(2)(a)



Note: (a) C&C breakdown chart only includes Counterfeit volumes related to brands of manufactures who participate in the empty pack/yellow bag surveys; (b) Total tax revenue lost represents estimated excise and VAT if C&C volumes had been consumed legally in the country of study ; (c) Due to rounding, segments highlighted in the charts may not add up to the total and year-on-year changes highlighted in the sidebar may differ from the charts

Source: (1) 'KPMG EU Flows Calculation, 2017-21; (2) In Market Sales data

Italy

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2017-2021[1][2]

Total Italy Consumption						
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**	**2020-21 (%)**
Legal Domestic Sales (LDS)	69.33	67.46	64.63	61.74	61.11	(1%)
Outflows	(1.00)	(0.97)	(0.90)	(0.61)	(0.49)	(20%)
Legal Domestic Consumption (LDC)	68.33	66.50	63.73	61.13	60.62	(1%)
Non-Domestic Legal (ND(L))	0.59	1.40	1.09	0.37	0.54	45%
Counterfeit and Contraband (C&C)	3.49	3.98	2.61	2.18	1.35	(38%)
Total Non-Domestic	4.08	5.38	3.70	2.55	1.89	(26%)
Total Consumption	**72.40**	**71.88**	**67.42**	**63.68**	**62.51**	**(2%)**

— Total cigarette consumption declined by 2% in 2021, driven by declines in legal domestic sales and C&C, continuing the trend seen since 2017

— Non-domestic inflows declined by 26% with declines from Slovenia, Duty Free, Egypt and 'Other' markets partially offset by an increase in Counterfeit

— Counterfeit accounted for the largest category of inflows to Italy, increasing to 0.47bn, similar to 2019 levels

— Outflows declined by 20% primarily driven by fall in outflows to France and 'Other' markets, partially offset by an increase in outflows to Switzerland and Poland

Total inflows by country of origin – 2017-2021[1][a]

Inflows to Italy					
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**
Counterfeit	0.26	0.29	0.48	0.23	0.47
Slovenia	0.12	0.18	0.41	0.45	0.32
IWs with no country-specific labelling	1.39	1.60	0.82	0.60	0.27
Duty Free Labelled	0.41	0.77	0.68	0.45	0.25
Egypt	0.03	0.13	0.06	0.07	0.07
Other	1.87	2.41	1.25	0.74	0.51
Total Inflows	**4.08**	**5.38**	**3.70**	**2.55**	**1.89**

Total outflows by destination – 2017-2021[1][a]

Outflows from Italy					
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**
France	(0.35)	(0.33)	(0.38)	(0.31)	(0.18)
Germany	(0.07)	(0.16)	(0.10)	(0.08)	(0.08)
Switzerland	(0.14)	(0.10)	(0.06)	(0.03)	(0.07)
Poland	(0.01)	(0.01)	(0.02)	(0.01)	(0.05)
Other	(0.42)	(0.36)	(0.34)	(0.18)	(0.12)
Total Outflows	**(1.00)**	**(0.97)**	**(0.90)**	**(0.61)**	**(0.49)**

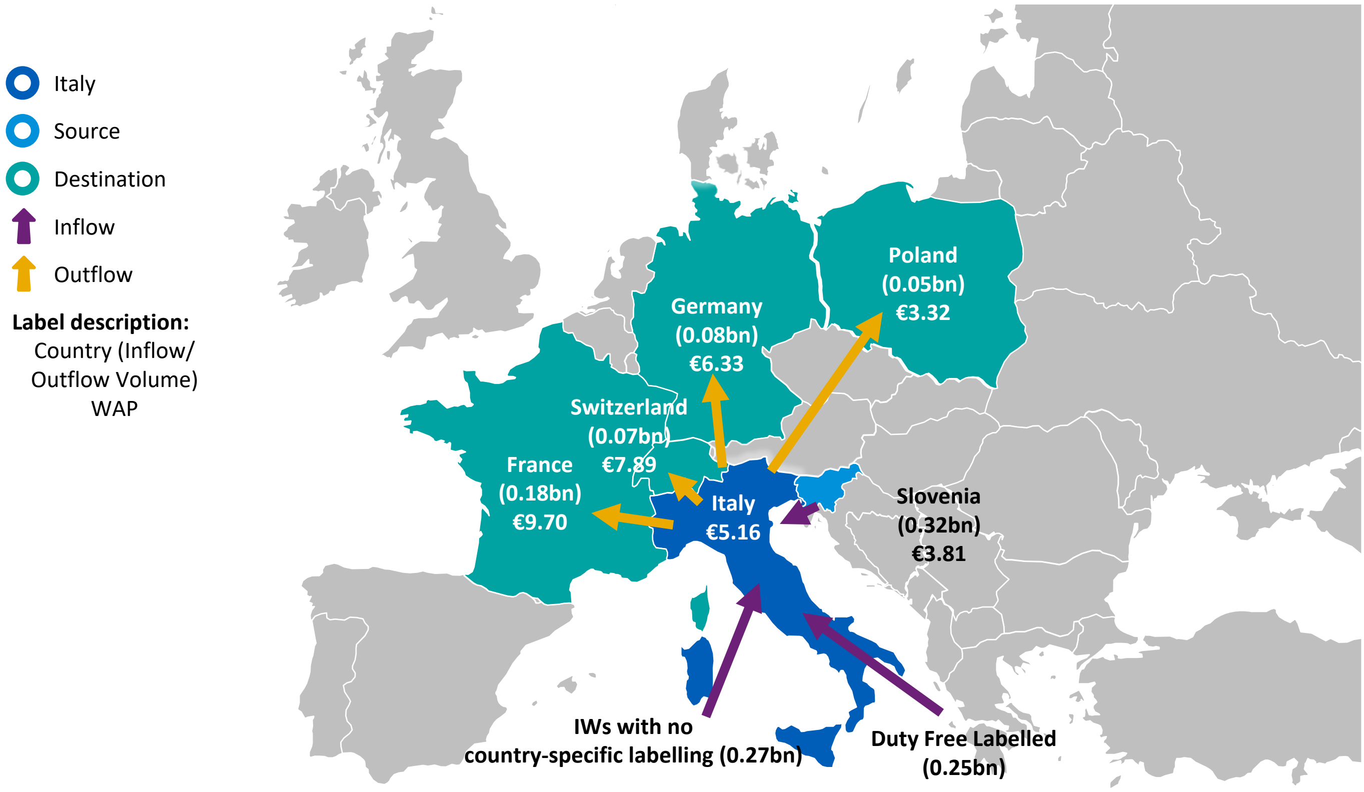
Note: (a) The inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows

Source: (1) KPMG EU Flows Calculation, 2017-21; (2) In Market Sales data;

Italy

Key flows and C&C consumption patterns

Key inflows and outflows[1](a)



C&C % by region[1](b)(c)

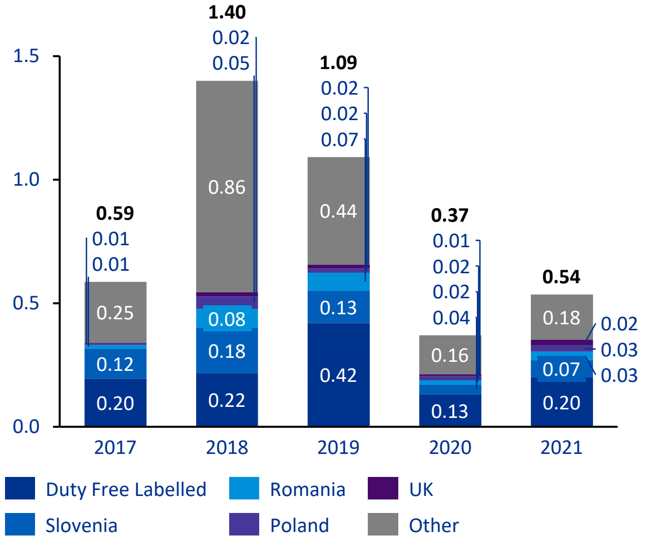
Note: (a) For countries with both inflows and outflows, only the larger of the two flows have been shown (b) C&C scale is relative to this market and is not comparable with other markets in the study, (c) Data not available for regions in grey

Source: (1) KPMG EU Flows Calculation 2021

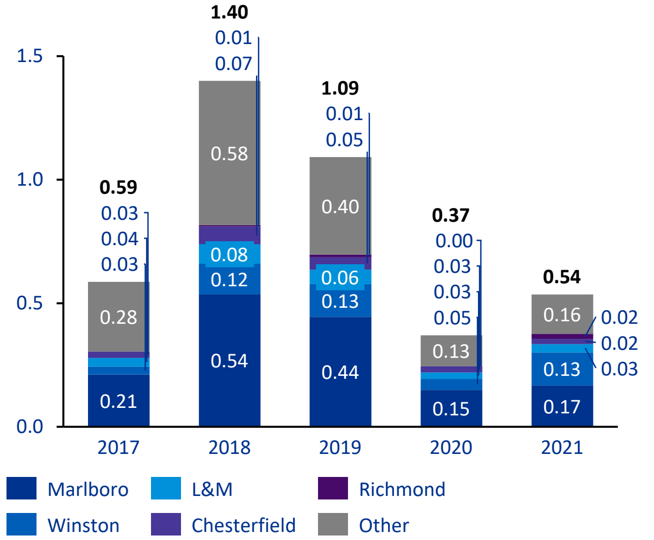
Italy

ND(L) and C&C flows

ND(L) by country of origin – 2017-2021 (bn cigarettes)[1]



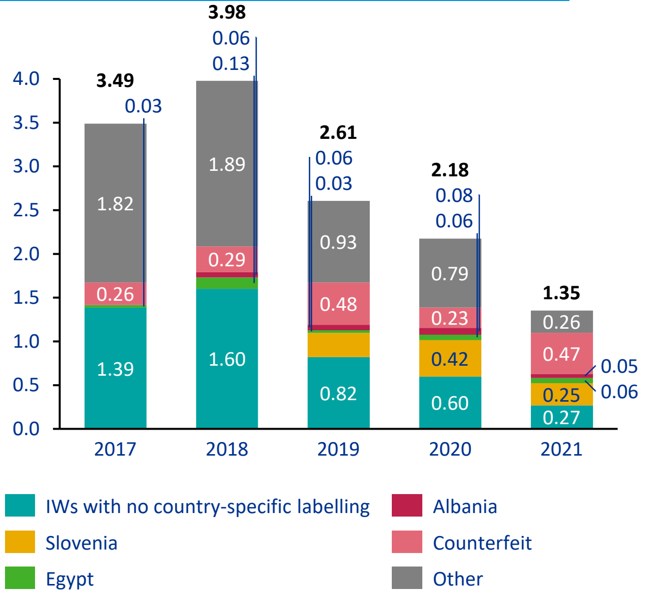
ND(L) by brand – 2017-2021 (bn cigarettes)[1]



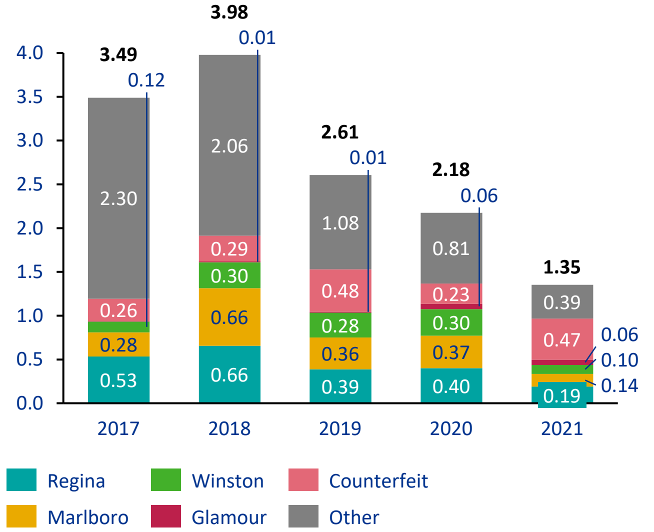
— Non-domestic legal flows increased by 45% against the backdrop of easing travel restrictions in 2021

— Illicit flows from the top five origins (including Counterfeit) formed 81% of total C&C in 2021, with he 2021 inflow decline primarily a result of lower flows from Slovenia and smaller markets included within 'Other'

C&C by country of origin – 2017-2021 (bn cigarettes)[1](a)(b)



C&C by brand – 2017-2021 (bn cigarettes)[1](a)(b)



Note: (a) Only includes Counterfeit volumes related to brands of manufactures who participate in the empty pack/yellow bag surveys (b) As Imperial Branda did not participate in Q3 empty pack survey, no Counterfeit has been identified of brands owned by Imperial Brands for this period

Source: (1) KPMG EU Flows Calculation, 2017-21;

Latvia

Latvia

C&C cigarette consumption and total consumption

2.0bn

Cigarettes consumed

-0.16bn on 2020

0.3bn

C&C cigarettes consumed

-0.09bn on 2020

16.2%

Of total consumption was C&C

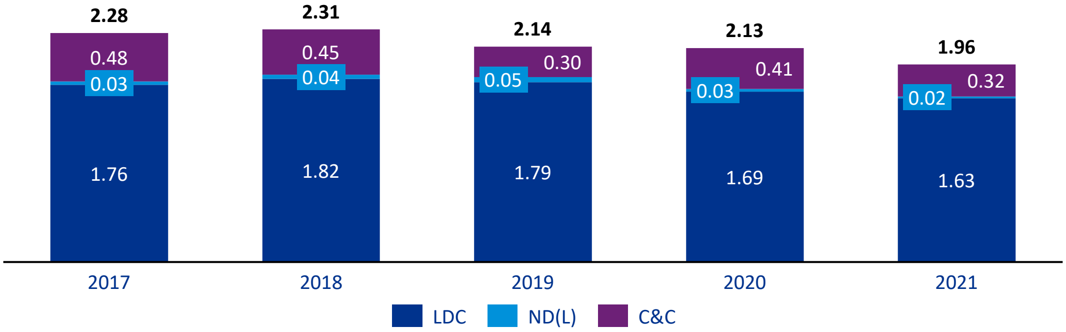
-2.93%pts on 2020

€48m

Total tax revenue lost from C&C

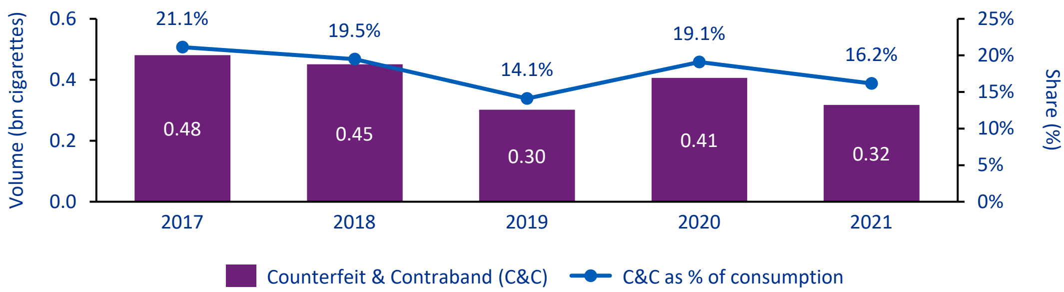
-€11m on 2020

Total consumption – 2017-2021 (bn cigarettes)(1)(2)

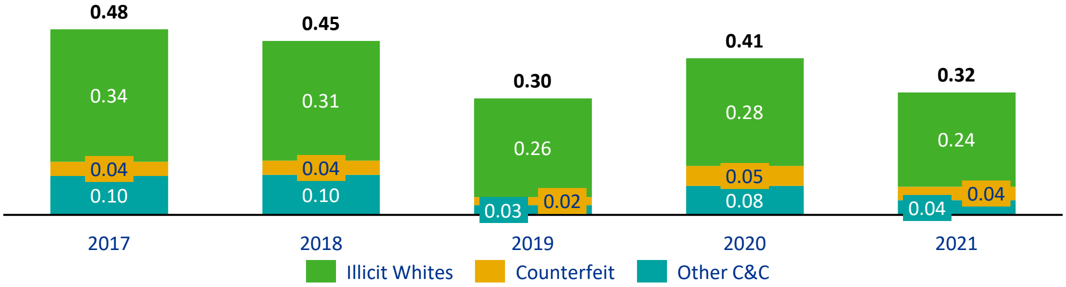


— C&C as a share of total consumption declined by c.2.9ppt in 2021 to 16.2%, primarily driven by a decline in Illicit Whites and Other C&C

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2017-2021(1)(2)



C&C consumption by type – 2017-2021 (bn cigarettes)(1)(2)(a)



Note: (a) C&C breakdown chart only includes Counterfeit volumes related to brands of manufactures who participate in the empty pack/yellow bag surveys; (b) Total tax revenue lost represents estimated excise and VAT if C&C volumes had been consumed legally in the country of study (c) Latvia LDS has been calculated using State Revenue Service data. In 2021, Latvia IMS was 1.748bn vs State Revenue Service data of 1.804bn ; (d) Due to rounding, segments highlighted in the charts may not add up to the total and year-on-year changes highlighted in the sidebar may differ from the charts

Source: (1) KPMG EU Flows Calculation, 2017-21; (2) In Market Sales data

KPMG

Latvia

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2017-2021[(1)(2)(b)]

Total Latvia Consumption						
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**	**2020-21 (%)**
Legal Domestic Sales (LDS)	1.89	1.94	1.90	1.80	1.80	0%
Outflows	(0.12)	(0.12)	(0.12)	(0.11)	(0.18)	59%
Legal Domestic Consumption (LDC)	1.76	1.82	1.79	1.69	1.63	(4%)
Non-Domestic Legal (ND(L))	0.03	0.04	0.05	0.03	0.02	(36%)
Counterfeit and Contraband (C&C)	0.48	0.45	0.30	0.41	0.32	(22%)
Total Non-Domestic	0.51	0.49	0.35	0.43	0.34	(23%)
Total Consumption	**2.28**	**2.31**	**2.14**	**2.13**	**1.96**	**(8%)**

- Total consumption declined by 8% in 2021, driven by an increase in outflows and a decline in non-domestic inflows
- Non-domestic inflow declines were driven primarily by a reduction from Belarus and a number of smaller volume inflows within the ‘Other’ category
- 2021 outflows were the highest in the reporting period, driven by larger flows to Finland, Sweden and Norway

Total inflows by country of origin – 2017-2021[(1)(a)]

Inflows to Latvia					
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**
Belarus	0.34	0.32	0.27	0.29	0.25
Counterfeit	0.04	0.04	0.02	0.05	0.04
Other	0.13	0.13	0.06	0.09	0.05
Total Inflows	**0.51**	**0.49**	**0.35**	**0.43**	**0.34**

Total outflows by destination – 2017-2021[(1)(a)]

Outflows from Latvia					
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**
Finland	(0.02)	(0.02)	(0.02)	(0.03)	(0.05)
Sweden	(0.02)	(0.01)	(0.04)	(0.01)	(0.05)
Norway	(0.00)	(0.01)	(0.00)	(0.01)	(0.03)
Estonia	(0.03)	(0.03)	(0.01)	(0.02)	(0.01)
Denmark	(0.00)	(0.00)	(0.00)	(0.00)	(0.01)
Other	(0.06)	(0.05)	(0.04)	(0.04)	(0.03)
Total Outflows	**(0.12)**	**(0.12)**	**(0.12)**	**(0.11)**	**(0.18)**

Note: (a) The inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows (b) Latvia LDS has been calculated using State Revenue Service data. In 2021, Latvia IMS was 1.748bn vs State Revenue Service data of 1.804bn;

Source: (1) KPMG EU Flows Calculation, 2017-21; (2) In Market Sales data;

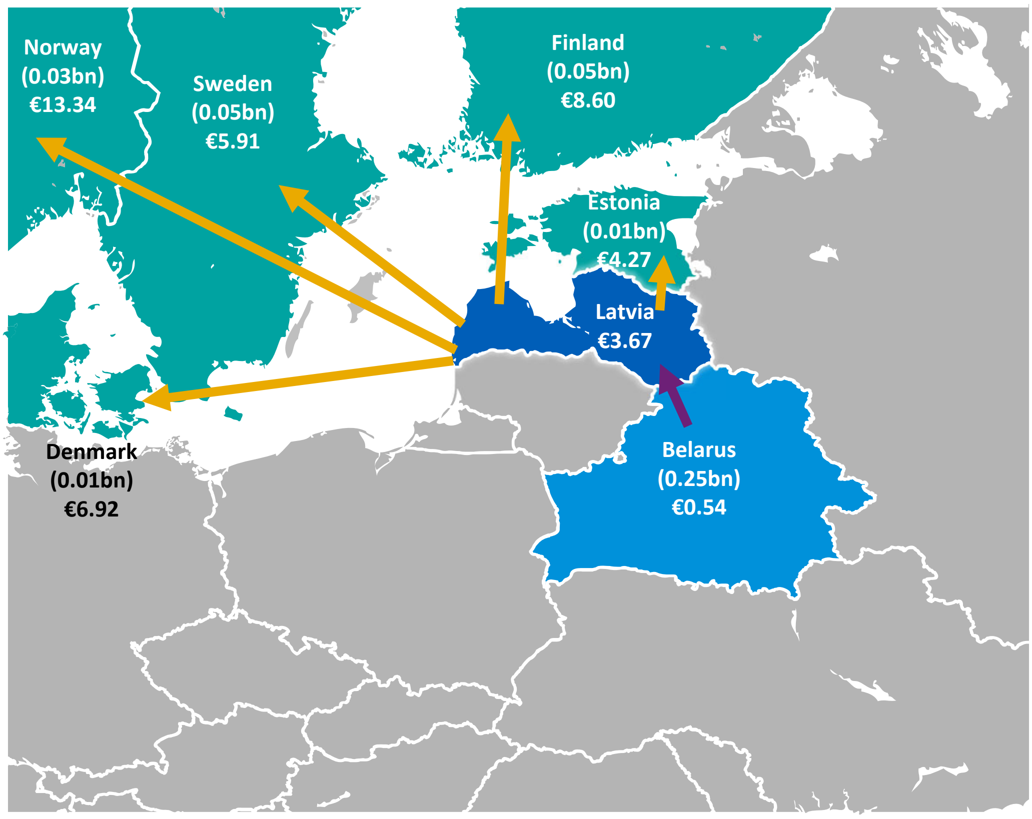
Latvia

Key flows and C&C consumption patterns

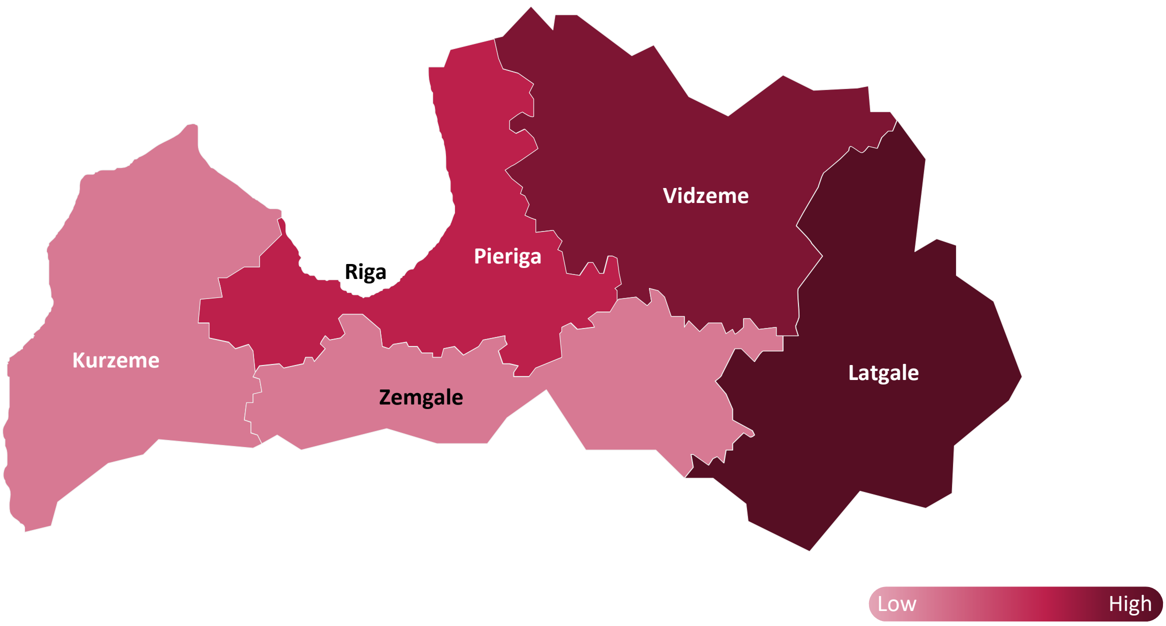
Key inflows and outflows[1](a)

Latvia
Source
Destination
Inflow
Outflow

Label description:
Country (Inflow/
Outflow Volume)
WAP



C&C % by region[1](b)(c)



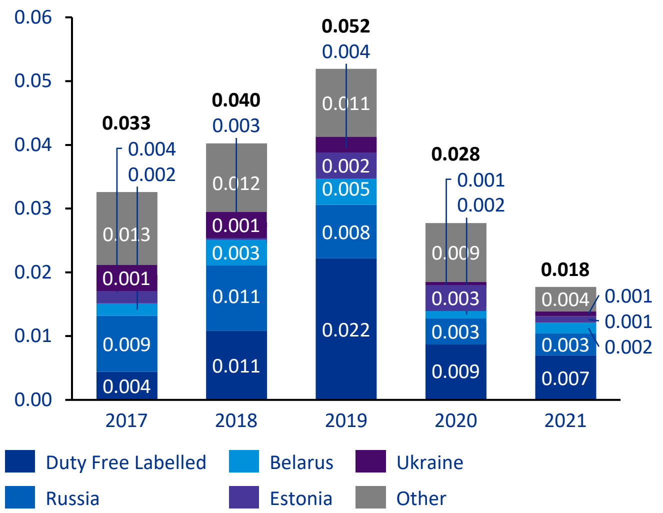
Note: (a) For countries with both inflows and outflows, only the larger of the two flows have been shown (b) C&C scale is relative to this market and is not comparable with other markets in the study, (c) Data not available for regions in grey

Source: (1) KPMG EU Flows Calculation 2021

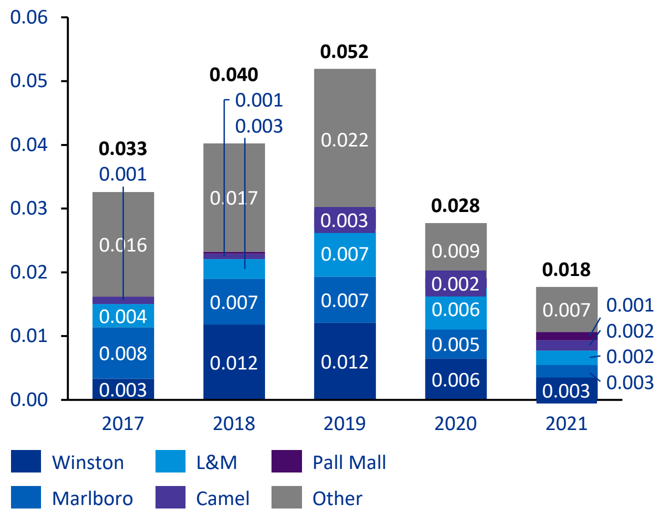
Latvia

ND(L) and C&C flows

ND(L) by country of origin – 2017-2021 (bn cigarettes) [1]

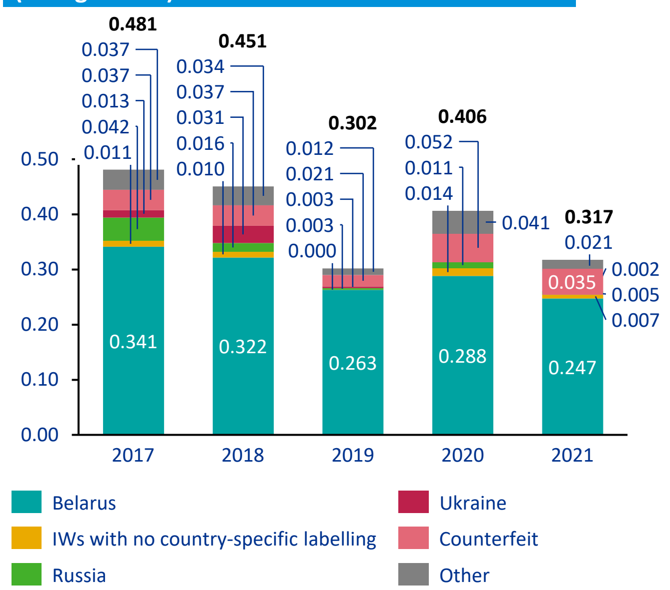


ND(L) by brand – 2017-2021 (bn cigarettes) [1]

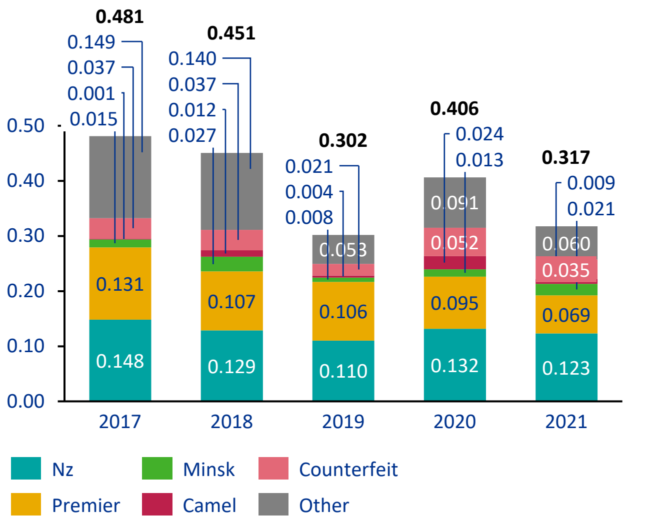


- Non-domestic legal (ND(L)) declines were driven by reduced inflows from Duty Free Labelled, Estonia and smaller sources of inflows within 'Other'
- The majority of inflows from Belarus are considered illicit as volumes that can be legally imported are relatively low due to a 40 cigarette limit per land traveller
- The highest levels of C&C were detected in the Latgale region bordering Belarus and Russia

C&C by country of origin – 2017-2021 (bn cigarettes) [1][a]



C&C by brand – 2017-2021 (bn cigarettes) [1][a]



Note: (a) Only includes Counterfeit volumes related to brands of manufactures who participate in the empty pack/yellow bag surveys.

Source: (1) KPMG EU Flows Calculation, 2017-21;

Lithuania

Lithuania

C&C cigarette consumption and total consumption

2.8bn

Cigarettes consumed

-0.08bn on 2020

0.5bn

C&C cigarettes consumed

-0.05bn on 2020

19.0%

Of total consumption was C&C

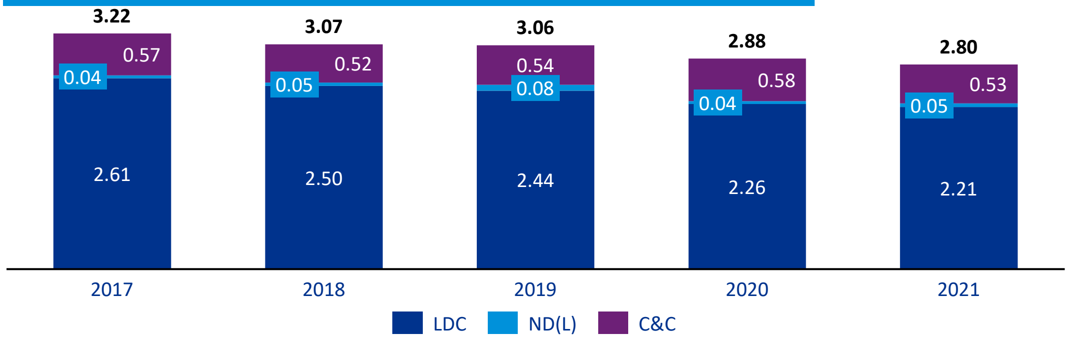
-1.13%pts on 2020

€79m

Total tax revenue lost from C&C

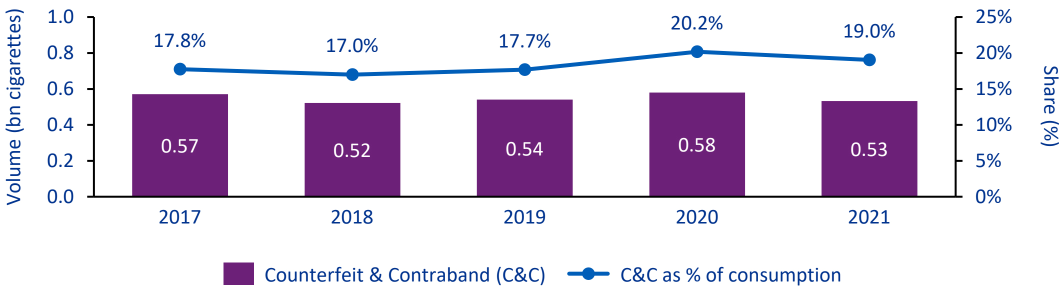
-€3m on 2020

Total consumption – 2017-2021 (bn cigarettes) (1)(2)

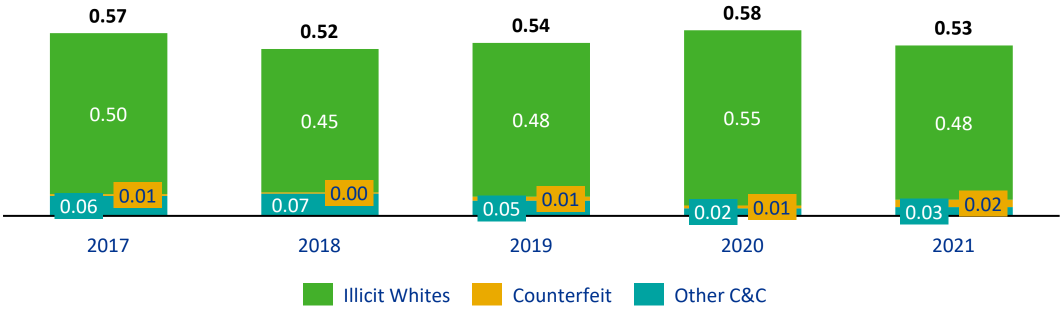


- C&C formed 19% of cigarette consumption in 2021, a 1.2ppt decline
- In line with 2020, Illicit Whites accounted for over 90% of total C&C

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2017-2021(1)(2)



C&C consumption by type – 2017-2021 (bn cigarettes) (1)(2)(a)



Note: (a) C&C breakdown chart only includes Counterfeit volumes related to brands of manufactures who participate in the empty pack/yellow bag surveys; (b) Total tax revenue lost represents estimated excise and VAT if C&C volumes had been consumed legally in the country of study ; (c) Due to rounding, segments highlighted in the charts may not add up to the total and year-on-year changes highlighted in the sidebar may differ from the charts

Source: (1) KPMG EU Flows Calculation, 2017-21; (2) In Market Sales data

Lithuania

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2017-2021[(1)(2)]

Total Lithuania Consumption						
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**	**2020-21 (%)**
Legal Domestic Sales (LDS)	2.94	2.79	2.68	2.41	2.36	(2%)
Outflows	(0.33)	(0.29)	(0.24)	(0.16)	(0.15)	(7%)
Legal Domestic Consumption (LDC)	2.61	2.50	2.44	2.26	2.21	(2%)
Non-Domestic Legal (ND(L))	0.04	0.05	0.08	0.04	0.05	28%
Counterfeit and Contraband (C&C)	0.57	0.52	0.54	0.58	0.53	(8%)
Total Non-Domestic	0.61	0.57	0.62	0.62	0.58	(6%)
Total Consumption	**3.22**	**3.07**	**3.06**	**2.88**	**2.80**	**(3%)**

- Total consumption declined by 3% in 2021, driven by a decline in legal domestic sales and non-domestic inflows
- Total inflows declined by 6% in 2021, principally driven by a decline in inflows from Belarus. Belarus accounted for 83% of the total inflows in 2021
- Outflows remained in line with 2020 levels

Total inflows by country of origin – 2017-2021[(1)(a)]

Inflows to Lithuania					
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**
Belarus	0.51	0.46	0.49	0.55	0.49
Other	0.10	0.11	0.14	0.07	0.10
Total Inflows	**0.61**	**0.57**	**0.62**	**0.62**	**0.58**

Total outflows by destination – 2017-2021[(1)(a)]

Outflows from Lithuania					
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**
Germany	(0.02)	(0.03)	(0.04)	(0.03)	(0.05)
Norway	(0.09)	(0.05)	(0.05)	(0.02)	(0.03)
Denmark	(0.01)	(0.00)	(0.01)	(0.00)	(0.01)
Sweden	(0.01)	(0.00)	(0.02)	(0.02)	(0.01)
UK	(0.10)	(0.11)	(0.07)	(0.02)	(0.01)
Other	(0.10)	(0.09)	(0.06)	(0.06)	(0.03)
Total Outflows	**(0.33)**	**(0.29)**	**(0.24)**	**(0.16)**	**(0.15)**

Note: (a) The inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows
Source: (1) KPMG EU Flows Calculation, 2017-21; (2) In Market Sales data;

Lithuania

Key flows and C&C consumption patterns

Key inflows and outflows[1](a)

Lithuania

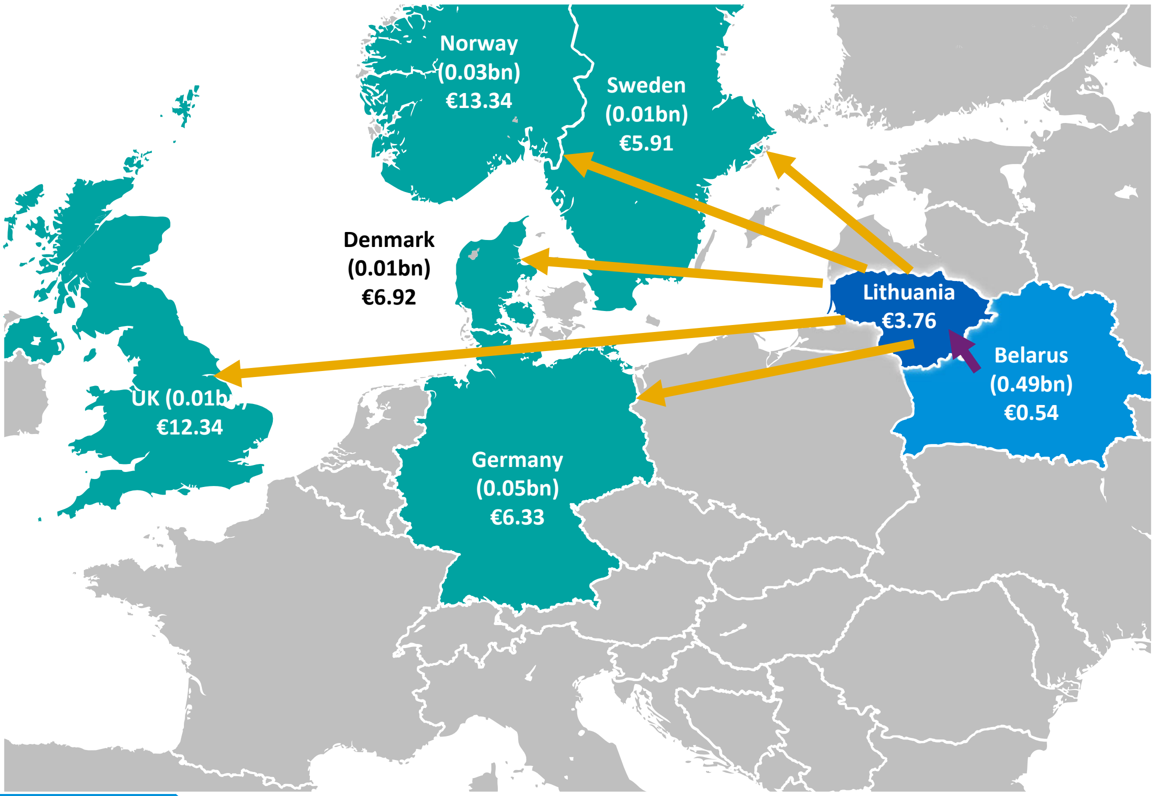
Source

Destination

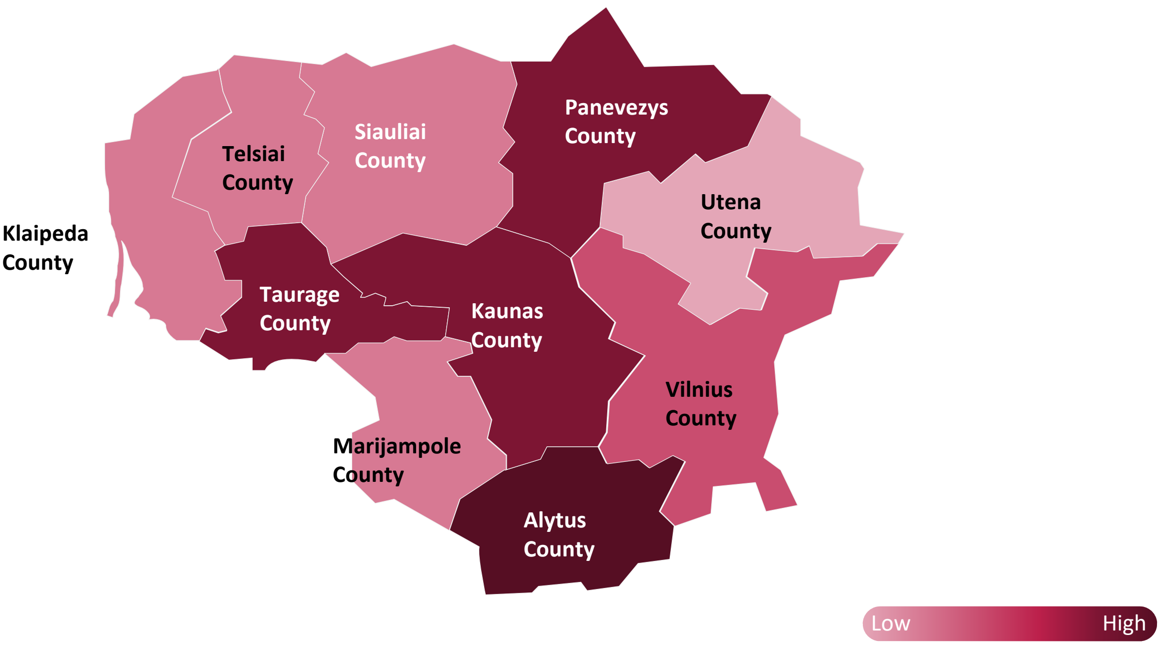
Inflow

Outflow

Label description:
Country (Inflow/ Outflow Volume) WAP



C&C % by region[1](b)(c)



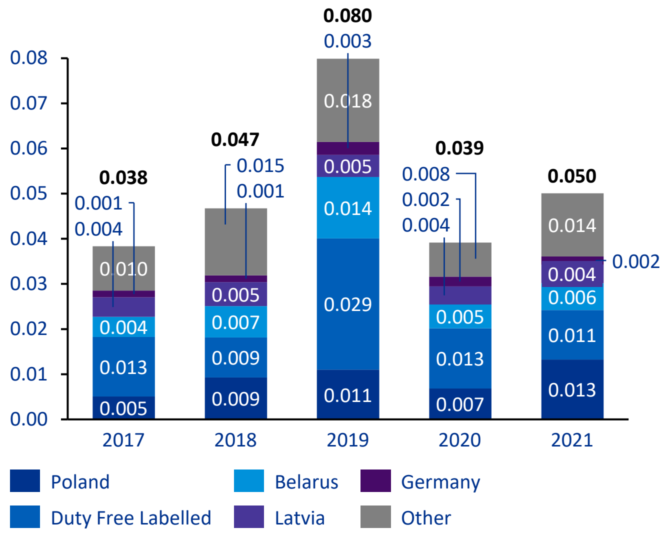
Note: (a) For countries with both inflows and outflows, only the larger of the two flows have been shown (b) C&C scale is relative to this market and is not comparable with other markets in the study, (c) Data not available for regions in grey

Source: (1) KPMG EU Flows Calculation 2021

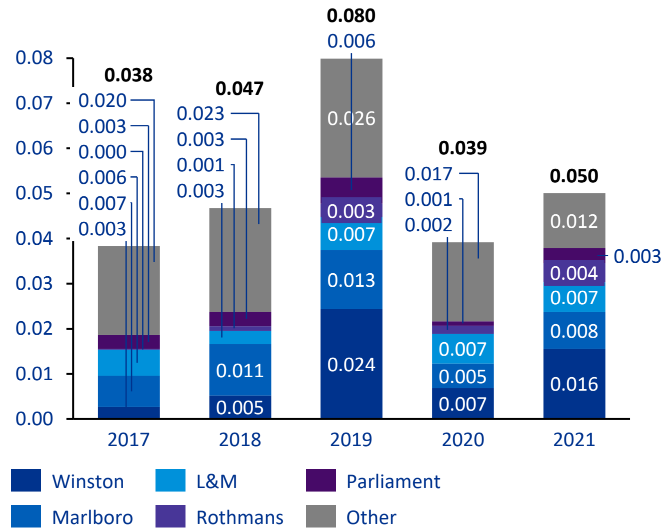
Lithuania

ND(L) and C&C flows

ND(L) by country of origin – 2017-2021 (bn cigarettes)[1]



ND(L) by brand – 2017-2021 (bn cigarettes)[1]

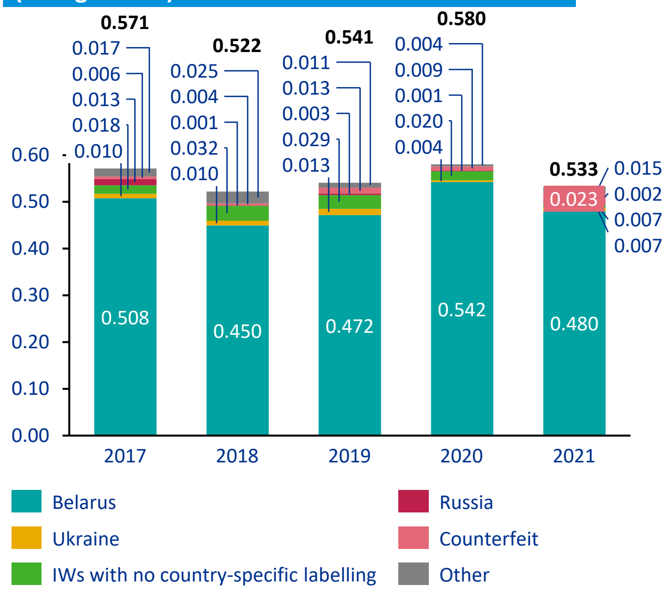


— Non-domestic legal flows (ND(L)) increased marginally in 2021

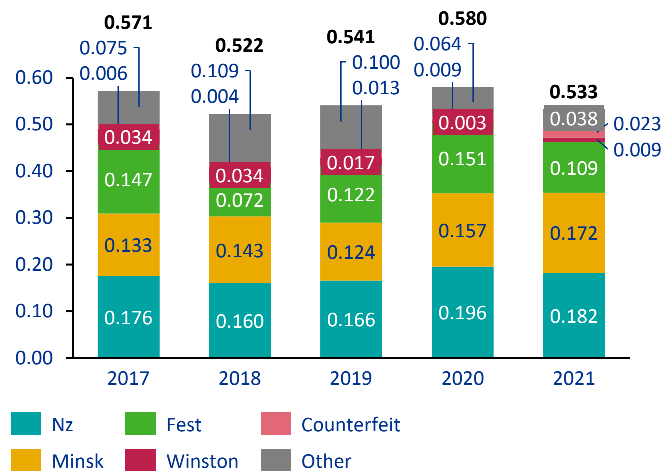
— Belarus continued to account for over 90% of total C&C flows

— The highest levels of C&C were detected in the Alytus County region, bordering Belarus

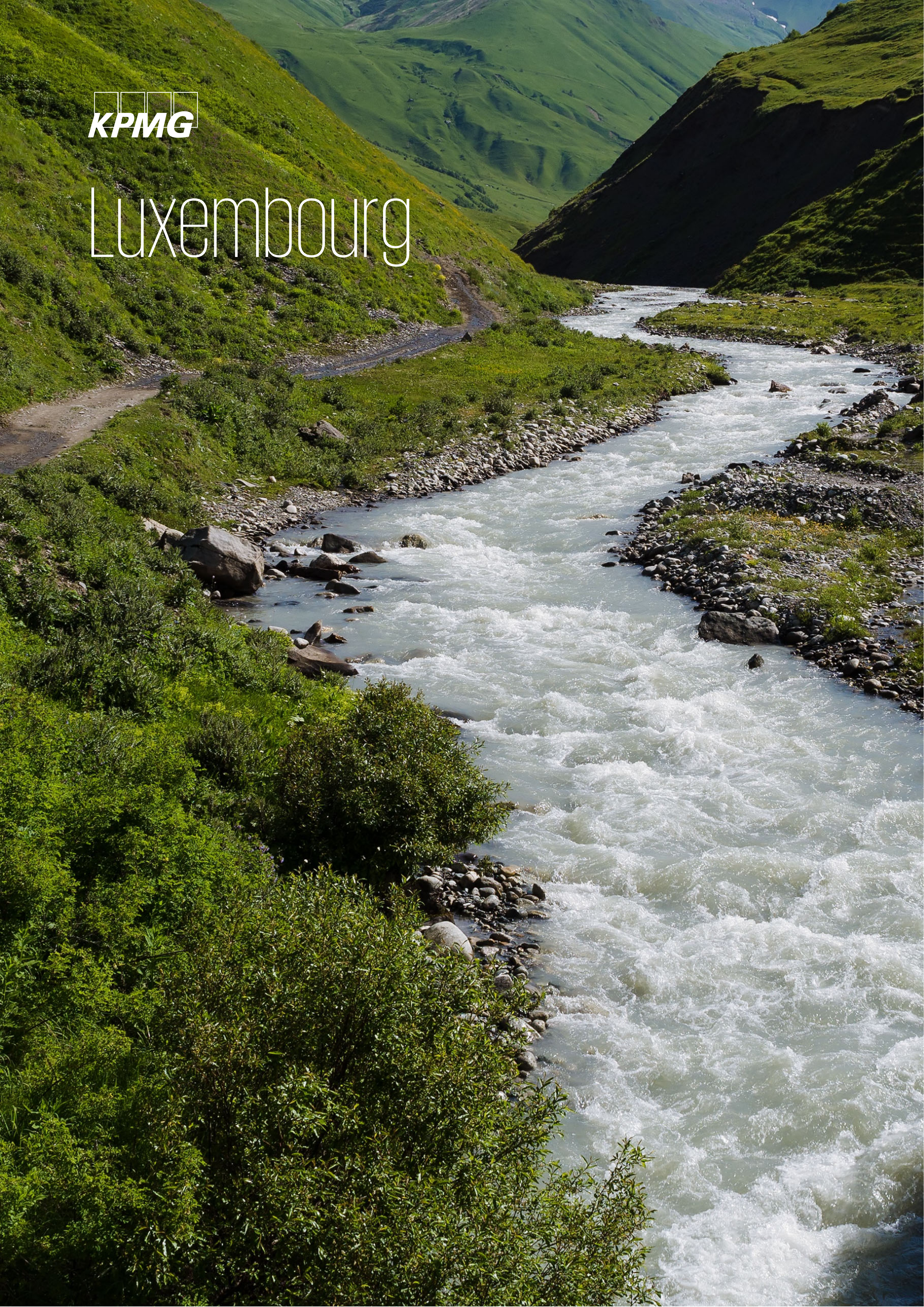
C&C by country of origin – 2017-2021 (bn cigarettes)[1][a]



C&C by brand – 2017-2021 (bn cigarettes)[1][a]



Note: (a) Only includes Counterfeit volumes related to brands of manufactures who participate in the empty pack/yellow bag surveys.
Source: (1) KPMG EU Flows Calculation, 2017-21;


KPMG
Luxembourg

Luxembourg

C&C cigarette consumption and total consumption

0.5bn

Cigarettes consumed

-0.06bn on 2020

0.005bn

C&C cigarettes consumed

-0.01bn on 2020

1.0%

Of total consumption was C&C

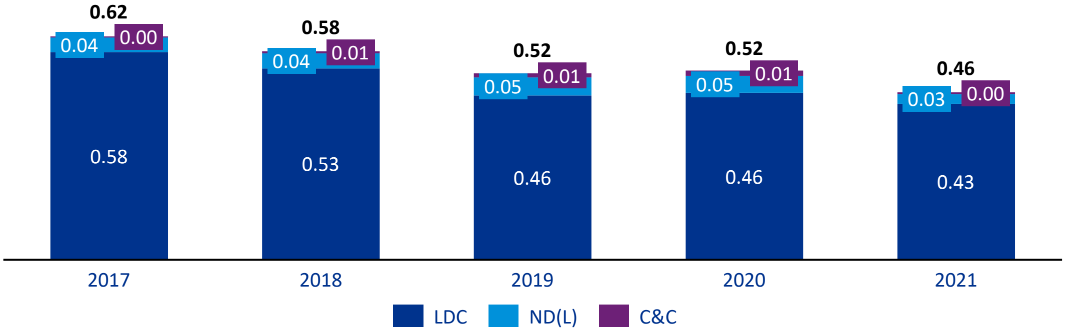
-1.84%pts on 2020

€1m

Total tax revenue lost from C&C

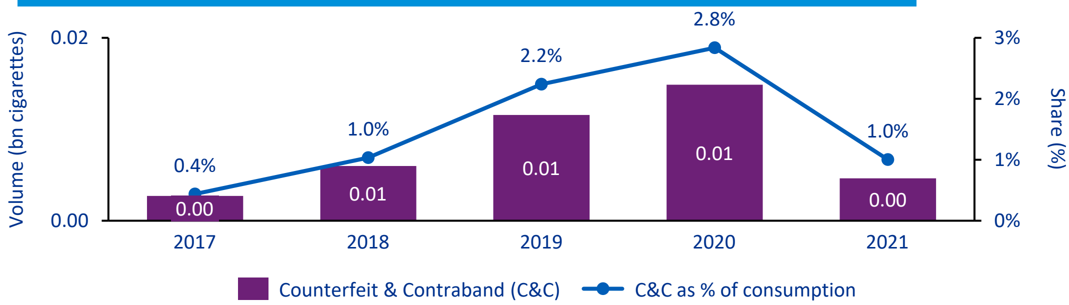
-€2m on 2020

Total consumption – 2017-2021 (bn cigarettes)(1)(2)

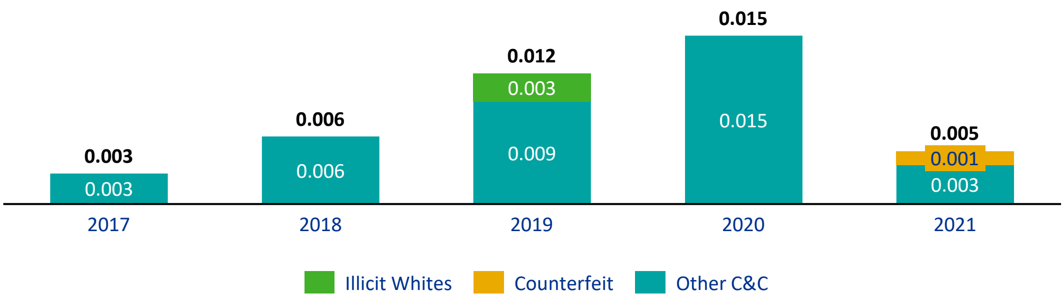


- C&C accounted for 1.0% of total cigarette consumption in 2021
- The C&C share in Luxembourg was among the lowest recorded

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2017-2021(1)(2)



C&C consumption by type – 2017-2021 (bn cigarettes)(1)(2)(a)



Note: (a) C&C breakdown chart only includes Counterfeit volumes related to brands of manufactures who participate in the empty pack/yellow bag surveys; (b) Total tax revenue lost represents estimated excise and VAT if C&C volumes had been consumed legally in the country of study ; (c) Due to rounding, segments highlighted in the charts may not add up to the total and year-on-year changes highlighted in the sidebar may differ from the charts

Source: (1) KPMG EU Flows Calculation, 2017-21; (2) In Market Sales data

Luxembourg

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2017-2021[1][2]

Total Luxembourg Consumption						
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**	**2020-21 (%)**
Legal Domestic Sales (LDS)	2.90	3.00	3.31	3.21	3.53	10%
Outflows	(2.32)	(2.47)	(2.85)	(2.74)	(3.09)	13%
Legal Domestic Consumption (LDC)	0.58	0.53	0.46	0.46	0.43	(7%)
Non-Domestic Legal (ND(L))	0.04	0.04	0.05	0.05	0.03	(42%)
Counterfeit and Contraband (C&C)	0.00	0.01	0.01	0.01	0.00	(69%)
Total Non-Domestic	0.04	0.05	0.06	0.06	0.03	(48%)
Total Consumption	**0.62**	**0.58**	**0.52**	**0.52**	**0.46**	**(12%)**

- Total consumption decreased by 12% in 2021, driven by increased outflows
- Inflows declined by c.48%, with reduced inflows from all main sources
- As Luxembourg is surrounded by higher priced neighbours, outflows are high. Outflows of 3.09bn in 2021 represented 87% of total legal sales and were the highest volume observed in the reporting period
- France remains the largest outflow destination, and has the highest cigarette prices amongst Luxembourg's neighbouring markets

Total inflows by country of origin – 2017-2021[1][a]

Inflows to Luxembourg					
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**
Belgium	0.01	0.01	0.02	0.03	0.01
Germany	0.01	0.01	0.01	0.01	0.00
Albania	0.00	0.00	0.00	0.00	0.00
Other	0.03	0.03	0.04	0.03	0.01
Total Inflows	**0.04**	**0.05**	**0.06**	**0.06**	**0.03**

Total outflows by destination – 2017-2021[1][2]

Outflows from Luxembourg					
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**
France	(1.09)	(1.15)	(1.26)	(0.72)	(1.10)
Belgium	(0.09)	(0.10)	(0.18)	(0.26)	(0.43)
Other	(1.14)	(1.22)	(1.41)	(1.76)	(1.56)
Total Outflows	**(2.32)**	**(2.47)**	**(2.85)**	**(2.74)**	**(3.09)**

Note: (a) The inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows
Source: (1) KPMG EU Flows Calculation, 2017-21; (2) In Market Sales data;

Luxembourg

Key flows

Key inflows and outflows[1][2][a][b]

Luxembourg

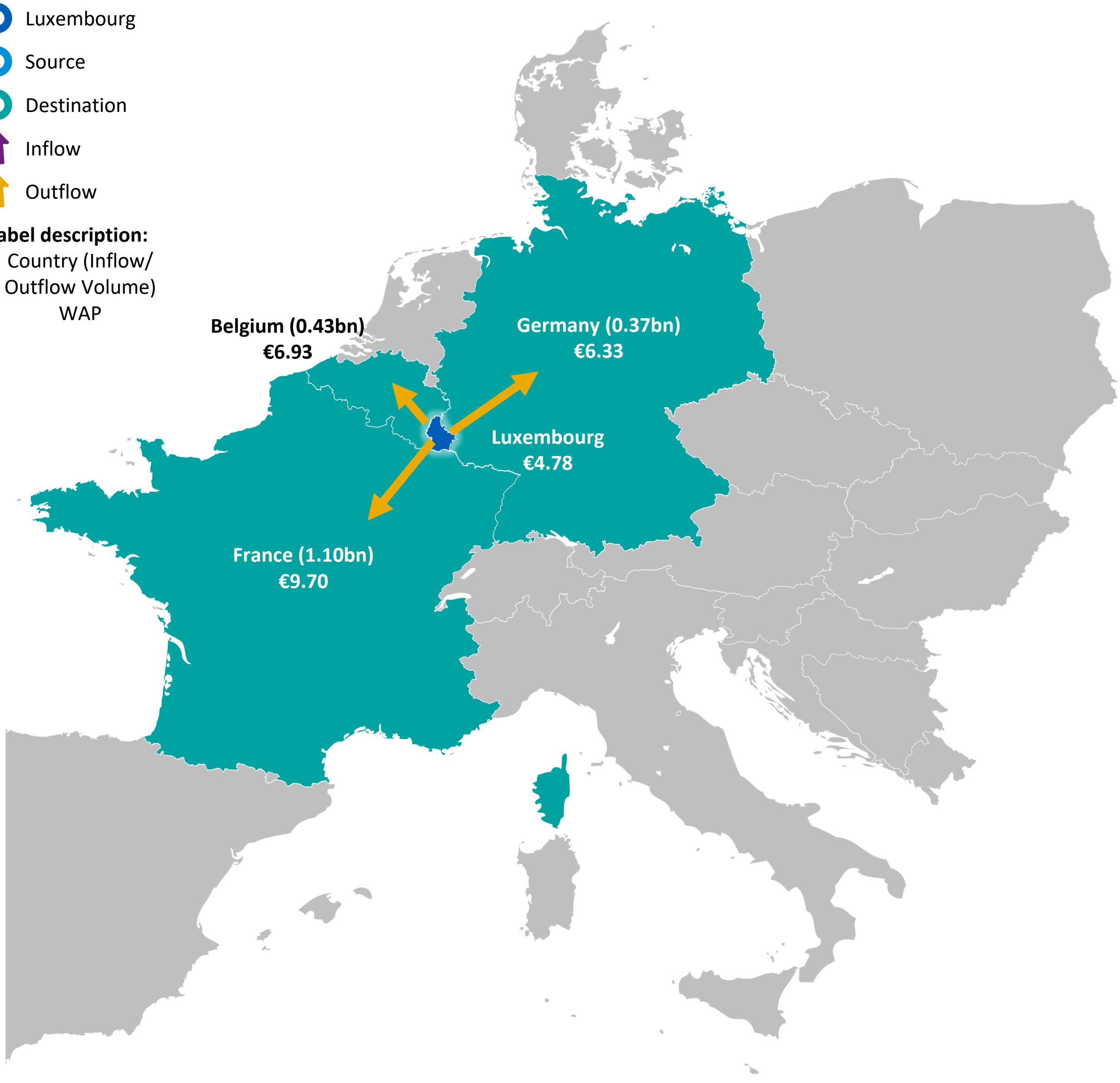
Source

Destination

Inflow

Outflow

Label description:
Country (Inflow/ Outflow Volume)
WAP



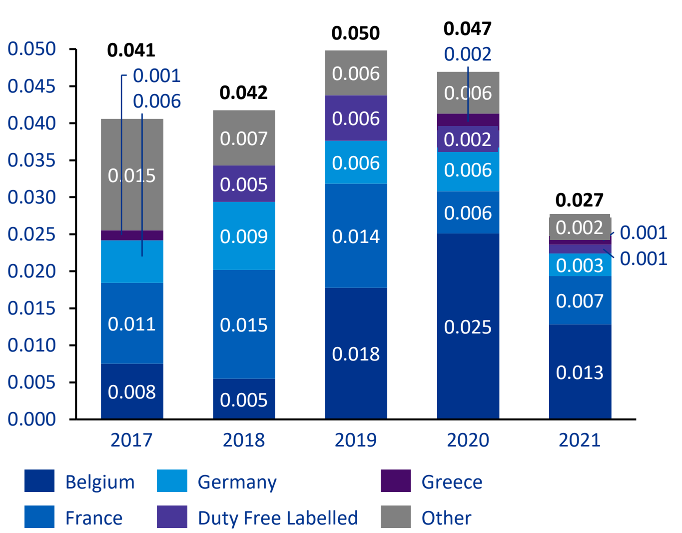
Note: (a) For countries with both inflows and outflows, only the larger of the two flows have been shown; (b) Luxembourg weighted average price (WAP) is for the full year 2021. This differs from the WAP used to estimate tax loss, which is from European Commission Excise Duty Tables available as of July 2021

Source: (1) KPMG EU Flows Calculation 2021; (2) Luxembourg WAP sourced from: European Commission, Taxes in Europe Database v3

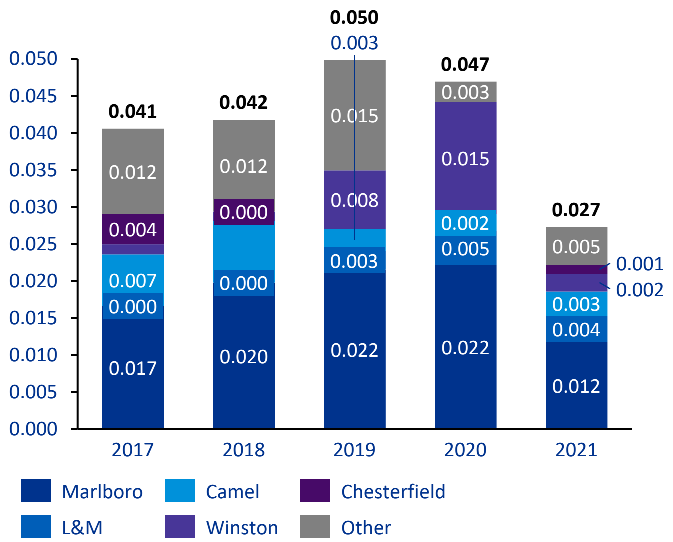
Luxembourg

ND(L) and C&C flows

ND(L) by country of origin – 2017-2021 (bn cigarettes)[1]



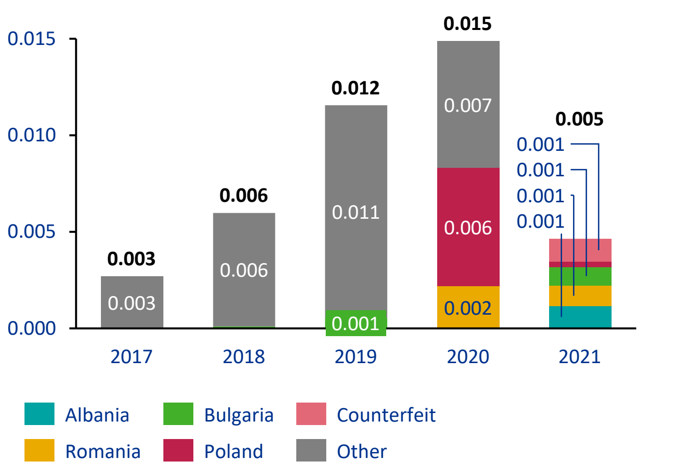
ND(L) by brand – 2017-2021 (bn cigarettes)[1]



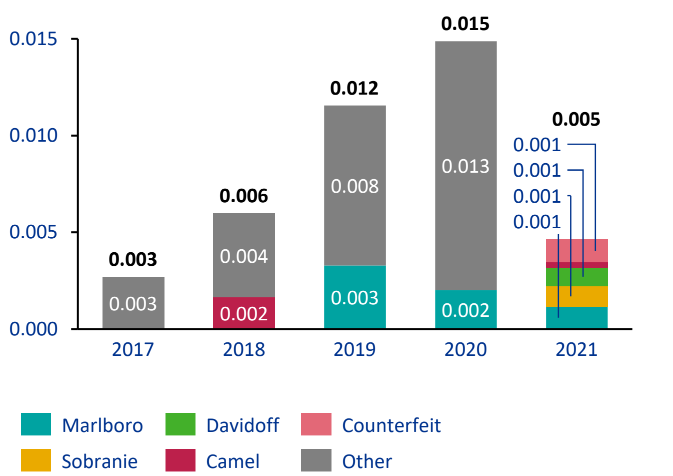
— ND(L) inflows declined by 0.02bn (42%), driven by declines from Belgium, Germany and smaller volume sources within the 'Other' category

— Total C&C inflows to Luxembourg declined by 69% in 2021, reversing the increasing trend observed between 2017 and 2020. Inflows from Poland and sources within 'Other' were the largest drivers of decline

C&C by country of origin – 2017-2021 (bn cigarettes)[1](a)



C&C by brand – 2017-2021 (bn cigarettes)[1](a)



Note: (a) Only includes Counterfeit volumes related to brands of manufactures who participate in the empty pack/yellow bag surveys.

Source: (1) KPMG EU Flows Calculation, 2017-21;

KPMG

Malta

Malta

C&C cigarette consumption and total consumption

0.5bn

Cigarettes consumed

+0.08bn on 2020

0.05bn

C&C cigarettes consumed

+0.02bn on 2020

9.5%

Of total consumption was C&C

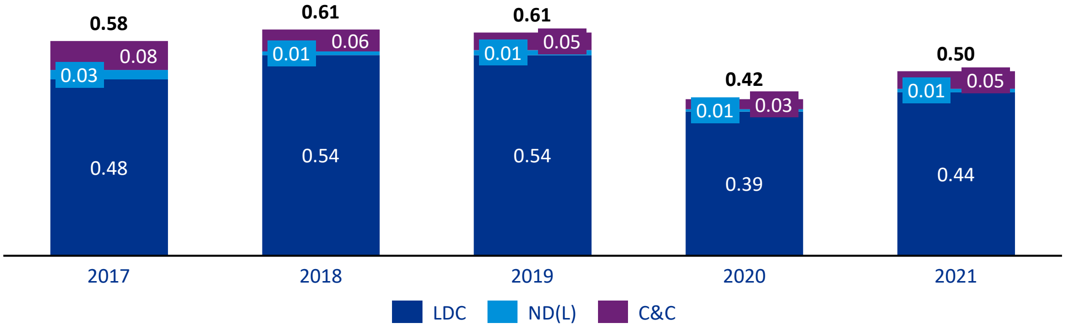
+3.05%pts on 2020

€10m

Total tax revenue lost from C&C

+€4m on 2020

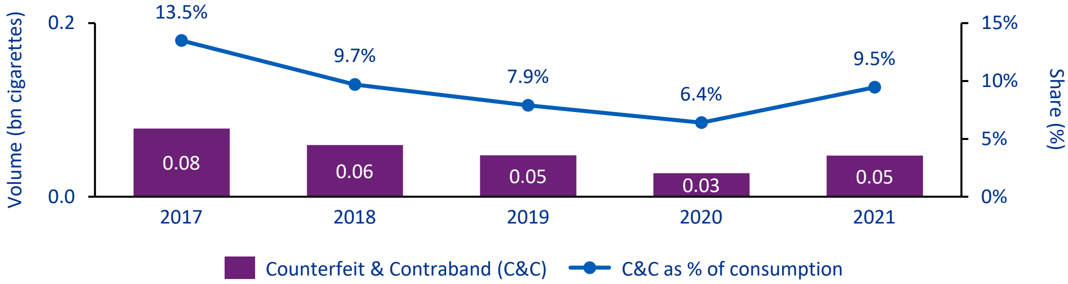
Total consumption – 2017-2021 (bn cigarettes)(1)(2)



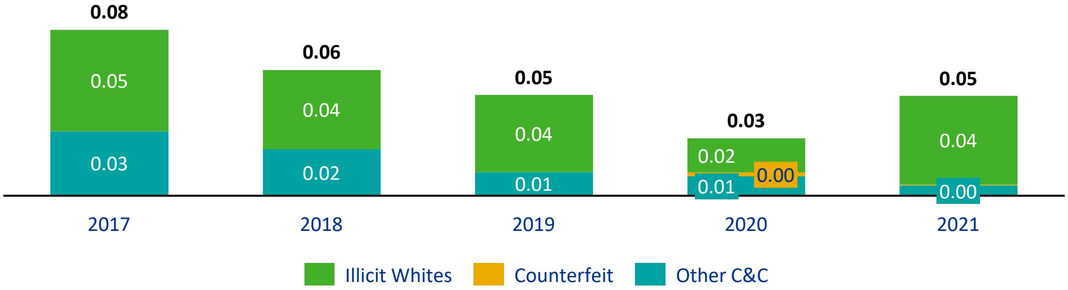
— C&C increased to 9.5% of total cigarette consumption in 2021

— The 2021 increase in C&C was driven by an increase in Illicit Whites inflows

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2017-2021(1)(2)



C&C consumption by type – 2017-2021 (bn cigarettes)(1)(2)(a)



Note: (a) C&C breakdown chart only includes Counterfeit volumes related to brands of manufactures who participate in the empty pack/yellow bag surveys; (b) Total tax revenue lost represents estimated excise and VAT if C&C volumes had been consumed legally in the country of study ; (c) Due to rounding, segments highlighted in the charts may not add up to the total and year-on-year changes highlighted in the sidebar may differ from the charts

Source: (1) KPMG EU Flows Calculation, 2017-21; (2) In Market Sales data

Malta

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2017-2021(1)(2)

Total Malta Consumption						
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**	**2020-21 (%)**
Legal Domestic Sales (LDS)	0.51	0.59	0.58	0.44	0.47	7%
Outflows	(0.03)	(0.05)	(0.03)	(0.05)	(0.02)	(50%)
Legal Domestic Consumption (LDC)	0.48	0.54	0.54	0.39	0.44	13%
Non-Domestic Legal (ND(L))	0.03	0.01	0.01	0.01	0.01	52%
Counterfeit and Contraband (C&C)	0.08	0.06	0.05	0.03	0.05	74%
Total Non-Domestic	0.10	0.07	0.06	0.03	0.06	70%
Total Consumption	**0.58**	**0.61**	**0.61**	**0.42**	**0.50**	**18%**

- Total cigarette consumption increased by 0.08bn (c.18%) in 2021, driven by an increase in legal domestic consumption and non-domestic inflows, but still remained below 2019 levels
- Illicit Whites with no country-specific labelling continued to be the main source of inflows, and increased in 2021
- Outflows declined by c.50%, primarily driven by a reduction in outflows to the UK and France

Total inflows by country of origin – 2017-2021(1)(a)

Inflows to Malta					
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**
IWs with no country-specific labelling	0.05	0.04	0.03	0.02	0.04
Duty Free Labelled	0.02	0.01	0.01	0.01	0.00
Italy	0.01	0.00	0.00	0.00	0.00
Other	0.03	0.02	0.02	0.01	0.01
Total Inflows	**0.10**	**0.07**	**0.06**	**0.03**	**0.06**

Total outflows by destination – 2017-2021(1)(a)

Outflows from Malta					
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**
France	(0.01)	(0.01)	(0.02)	(0.01)	(0.02)
UK	(0.01)	(0.01)	(0.00)	(0.03)	(0.00)
Other	(0.01)	(0.03)	(0.01)	(0.01)	(0.00)
Total Outflows	**(0.03)**	**(0.05)**	**(0.03)**	**(0.05)**	**(0.02)**

Note: (a) The inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows
Source: (1) KPMG EU Flows Calculation, 2017-21; (2) In Market Sales data;

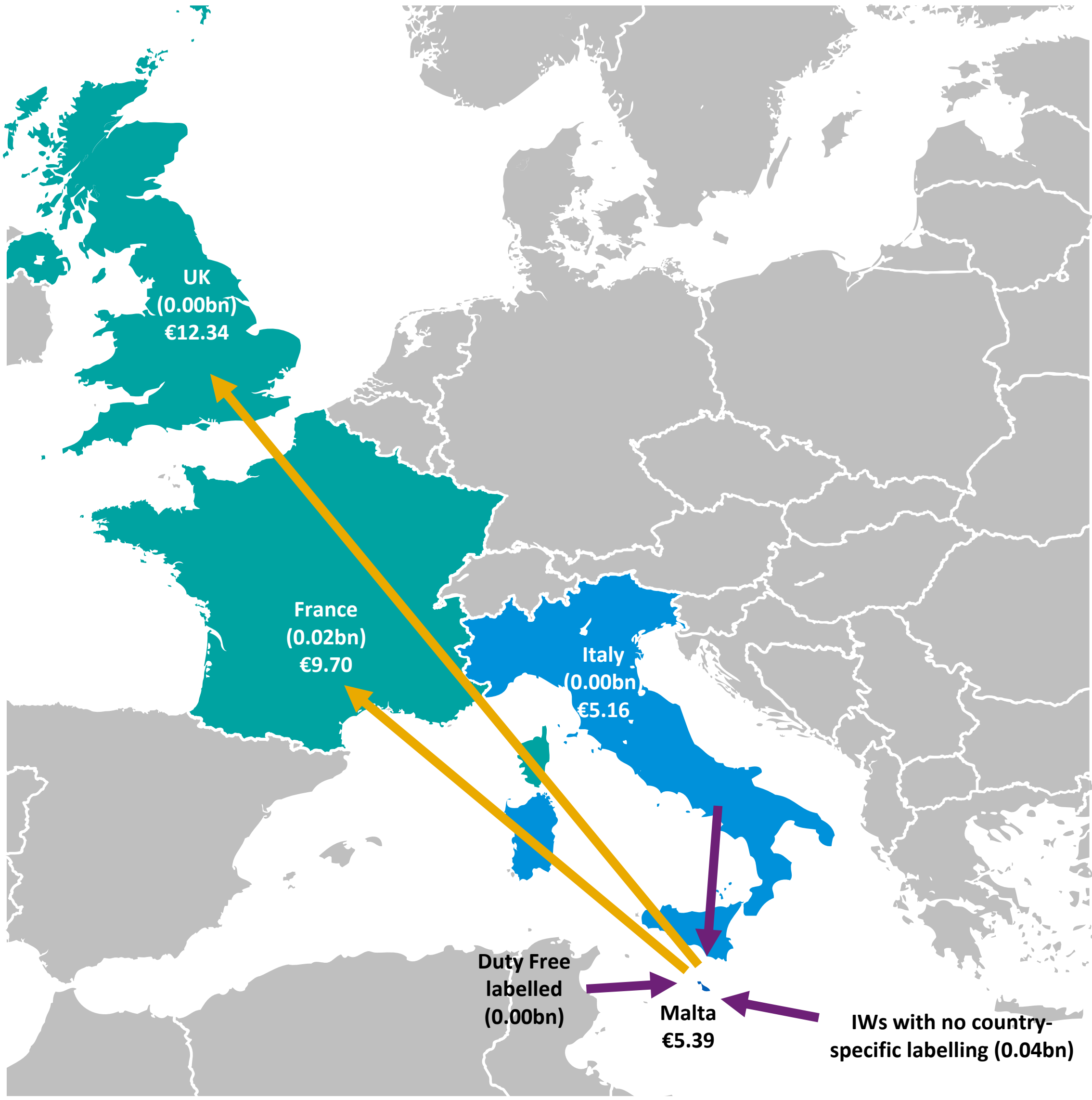
Malta

Key flows

Key inflows and outflows[1][a]

Malta
Source
Destination
Inflow
Outflow

Label description:
Country (Inflow/
Outflow Volume)
WAP

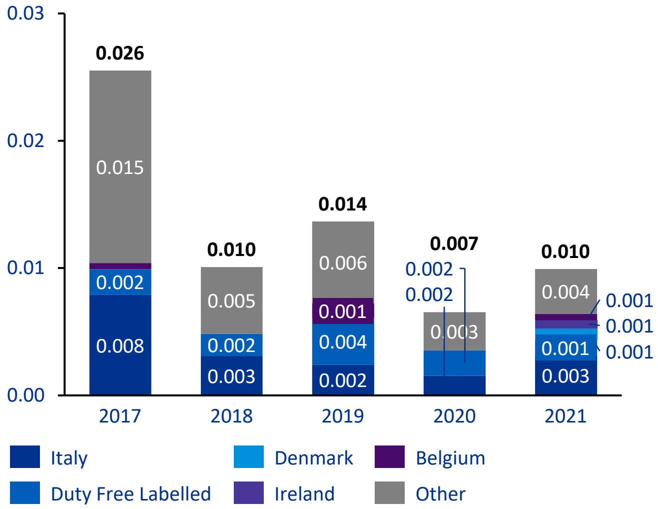


Note: (a) For countries with both inflows and outflows, only the larger of the two flows have been shown
Source: (1) KPMG EU Flows Calculation 2021

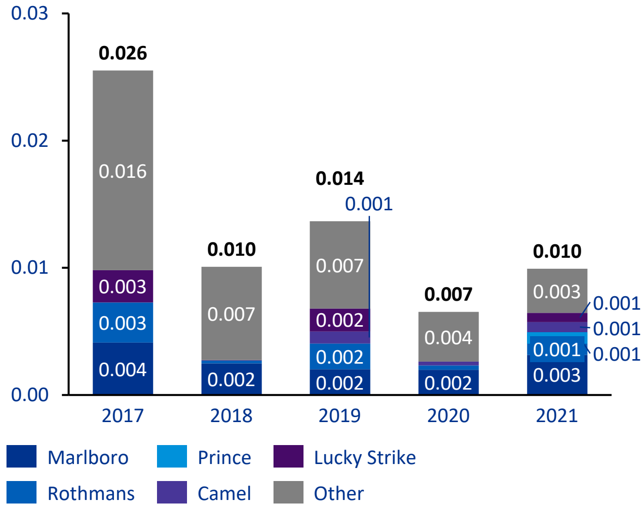
Malta

ND(L) and C&C flows

ND(L) by country of origin – 2017-2021 (bn cigarettes)[1]

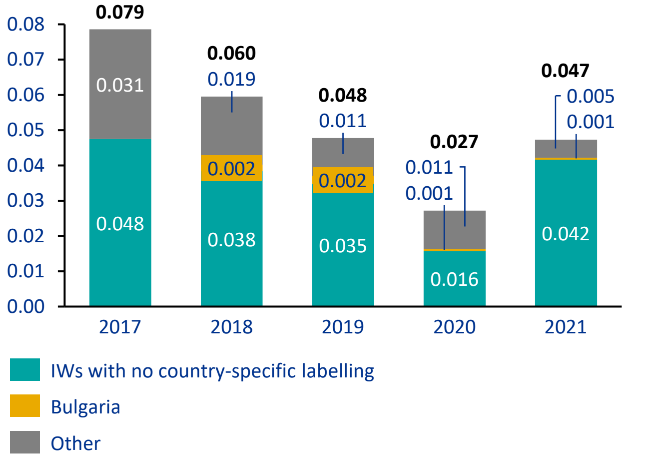


ND(L) by brand – 2017-2021 (bn cigarettes)[1]

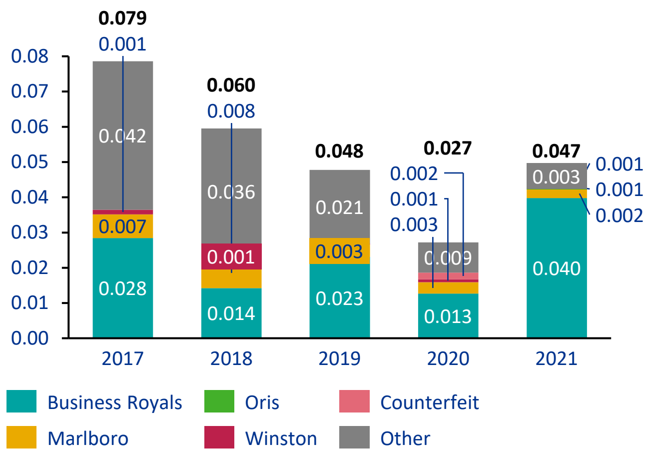


- ND(L) flows increased by 52% in 2021 to 0.010bn
- Illicit Whites with no country-specific labelling accounted for the majority of illicit consumption

C&C by country of origin – 2017-2021 (bn cigarettes)[1](a)



C&C by brand – 2017-2021 (bn cigarettes)[1](a)



Note: (a) Only includes Counterfeit volumes related to brands of manufactures who participate in the empty pack/yellow bag surveys.
Source: (1) KPMG EU Flows Calculation, 2017-21;

Netherlands

Netherlands

11.8bn

Cigarettes consumed

+0.66bn on 2020

2.2bn

C&C cigarettes consumed

+1.47bn on 2020

18.4%

Of total consumption was C&C

+12.16%pts on 2020

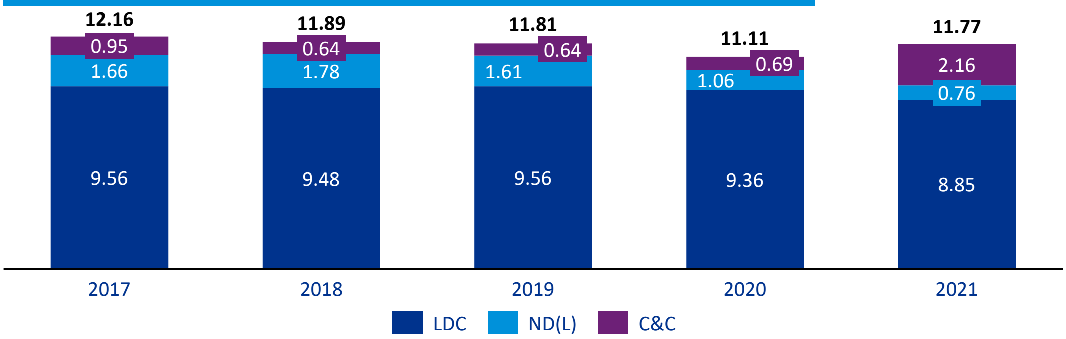
€656m

Total tax revenue lost from C&C

+€455m on 2020

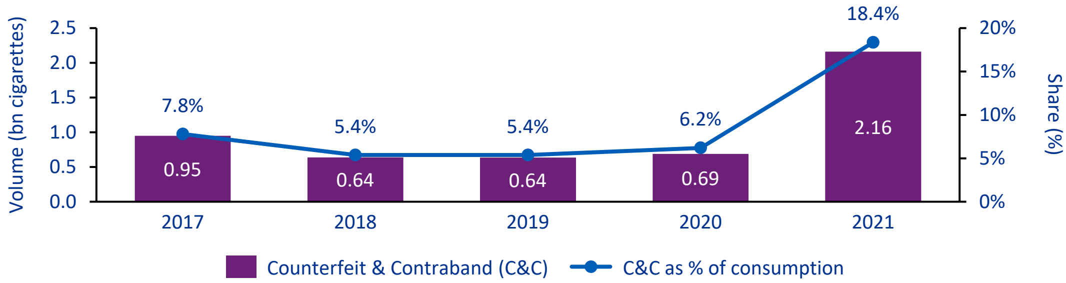
C&C cigarette consumption and total consumption

Total consumption – 2017-2021 (bn cigarettes)(1)(2)

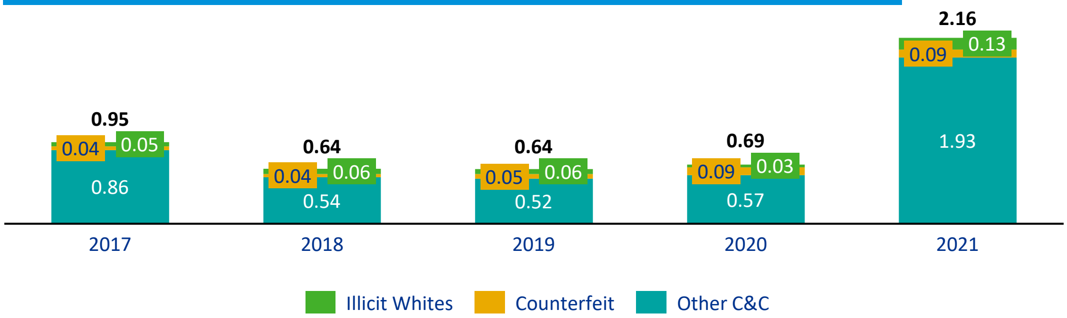


— C&C as a share of total consumption increased by c.12ppt or 1.47bn cigarettes due to increased flows of Other C&C and, to a lesser extent, Illicit Whites

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2017-2021(1)(2)



C&C consumption by type – 2017-2021 (bn cigarettes)(1)(2)(a)



Note: (a) C&C breakdown chart only includes Counterfeit volumes related to brands of manufactures who participate in the empty pack/yellow bag surveys; (b) Total tax revenue lost represents estimated excise and VAT if C&C volumes had been consumed legally in the country of study ; (c) Due to rounding, segments highlighted in the charts may not add up to the total and year-on-year changes highlighted in the sidebar may differ from the charts

Source: (1) KPMG EU Flows Calculation, 2017-21; (2) In Market Sales data

Netherlands

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2017-2021[(1)(2)]

Total Netherlands Consumption						
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**	**2020-21 (%)**
Legal Domestic Sales (LDS)	9.89	9.92	9.84	9.56	9.08	(5%)
Outflows	(0.33)	(0.45)	(0.29)	(0.20)	(0.23)	15%
Legal Domestic Consumption (LDC)	9.56	9.48	9.56	9.36	8.85	(5%)
Non-Domestic Legal (ND(L))	1.66	1.78	1.61	1.06	0.76	(28%)
Counterfeit and Contraband (C&C)	0.95	0.64	0.64	0.69	2.16	214%
Total Non-Domestic	2.61	2.42	2.25	1.75	2.92	67%
Total Consumption	**12.16**	**11.89**	**11.81**	**11.11**	**11.77**	**6%**

- Total consumption increased by 6% in 2021 as a decline in legal domestic sales and legal non-domestic inflows (ND(L)) was more than offset by increased illicit inflows (C&C). Despite this, total consumption in 2021 remained lower than in 2019
- The lower-priced markets of Belgium and Bulgaria were the primary drivers of increased inflows, and accounted for c.57% of all non-domestic inflows in 2021 (25% in 2020)
- Outflows from higher priced Netherlands are relatively low. However, outflows to higher-priced France increased in 2021

Total inflows by country of origin – 2017-2021[(1)(a)]

Inflows to Netherlands					
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**
Belgium	0.15	0.18	0.21	0.34	0.91
Bulgaria	0.04	0.05	0.05	0.10	0.76
Germany	0.26	0.35	0.38	0.22	0.23
Duty Free Labelled	0.48	0.37	0.35	0.14	0.21
Luxembourg	0.03	0.04	0.11	0.09	0.15
Other	1.65	1.42	1.15	0.86	0.66
Total Inflows	**2.61**	**2.42**	**2.25**	**1.75**	**2.92**

Total outflows by destination – 2017-2021[(1)(a)]

Outflows from Netherlands					
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**
France	(0.05)	(0.05)	(0.04)	(0.03)	(0.11)
Belgium	(0.04)	(0.20)	(0.07)	(0.06)	(0.04)
Germany	(0.08)	(0.08)	(0.08)	(0.06)	(0.04)
Other	(0.17)	(0.12)	(0.09)	(0.05)	(0.04)
Total Outflows	**(0.33)**	**(0.45)**	**(0.29)**	**(0.20)**	**(0.23)**

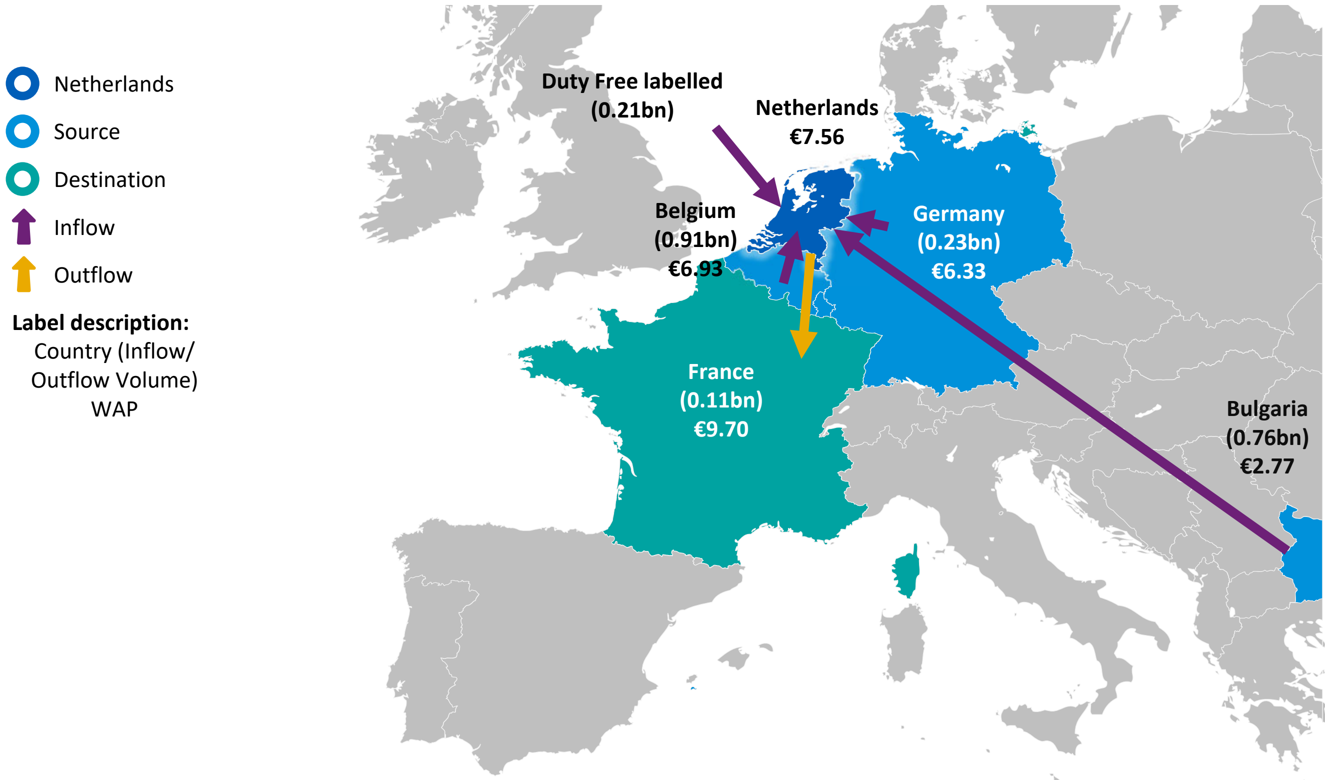
Note: (a) The inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows

Source: (1) KPMG EU Flows Calculation, 2017-21; (2) In Market Sales data;

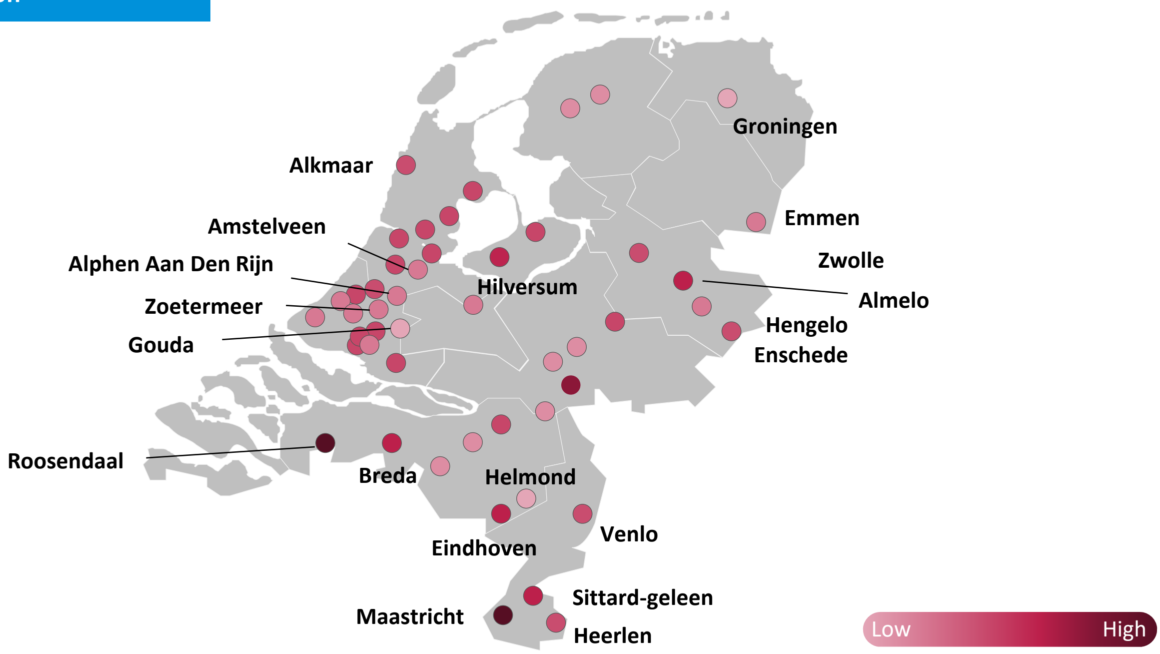
Netherlands

Key flows and C&C consumption patterns

Key inflows and outflows[1][2][a][b]



C&C % by region[1][c][d]



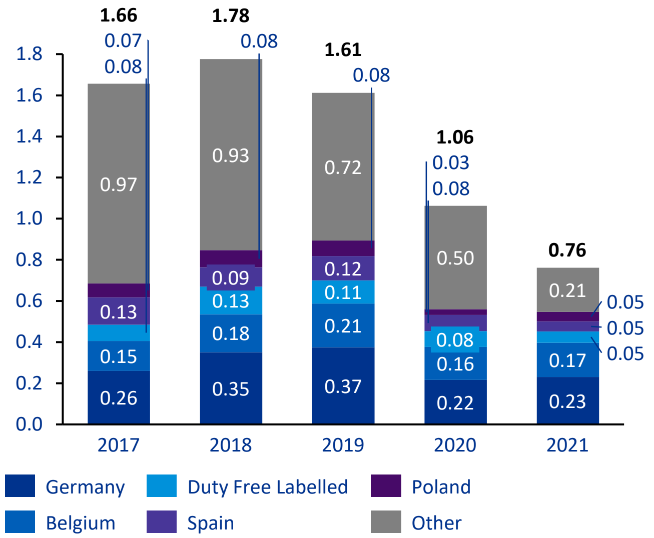
Note: (a) For countries with both inflows and outflows, only the larger of the two flows have been shown; (b) Netherlands weighted average price (WAP) is for the full year 2021. This differs from the WAP used to estimate tax loss, which is from European Commission Excise Duty Tables available as of July 2021; (c) C&C scale is relative to this market and is not comparable with other markets in the study, (d) Data not available for regions in grey

Source: (1) KPMG EU Flows Calculation 2021; (2) Netherlands WAP sourced from 'Publication of the weighted average retail selling price (WAP) of cigarettes and smoking tobacco for 2021', Rijksoverheid.nl

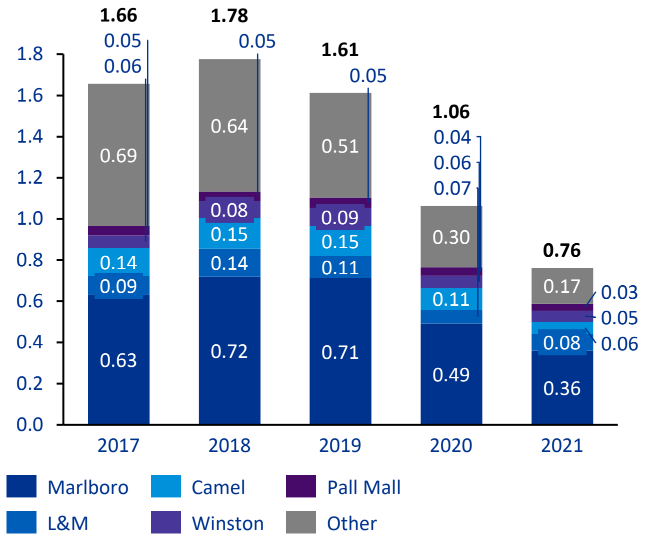
Netherlands

ND(L) and C&C flows

ND(L) by country of origin – 2017-2021 (bn cigarettes)(1)



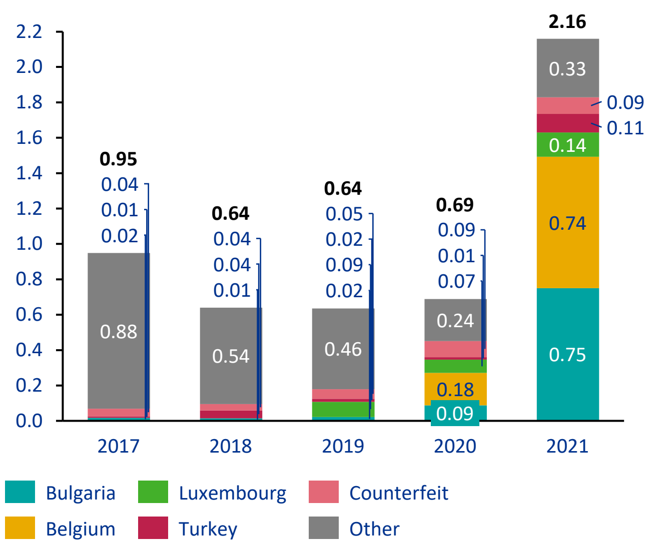
ND(L) by brand – 2017-2021 (bn cigarettes)(1)



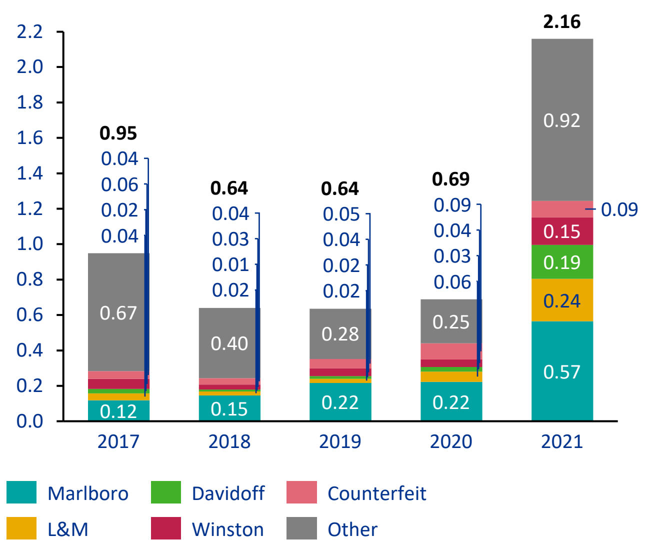
— Non-domestic legal inflows declined in 2021, primarily driven by a reduction in inflows from smaller volume sources within the 'Other' category

— Bulgaria and Belgium were the largest sources of C&C in 2021, with illicit flows increasing from both countries

C&C by country of origin – 2017-2021 (bn cigarettes) (1)



C&C by brand – 2017-2021 (bn cigarettes)(1)(a)



Note: (a) Only includes Counterfeit volumes related to brands of manufactures who participate in the empty pack/yellow bag surveys.
Source: (1) KPMG EU Flows Calculation, 2017-21;

Norway

Norway

C&C cigarette consumption and total consumption

2.4bn

Cigarettes consumed

+0.09bn on 2020

0.3bn

C&C cigarettes consumed

+0.07bn on 2020

12.8%

Of total consumption was C&C

+2.70%pts on 2020

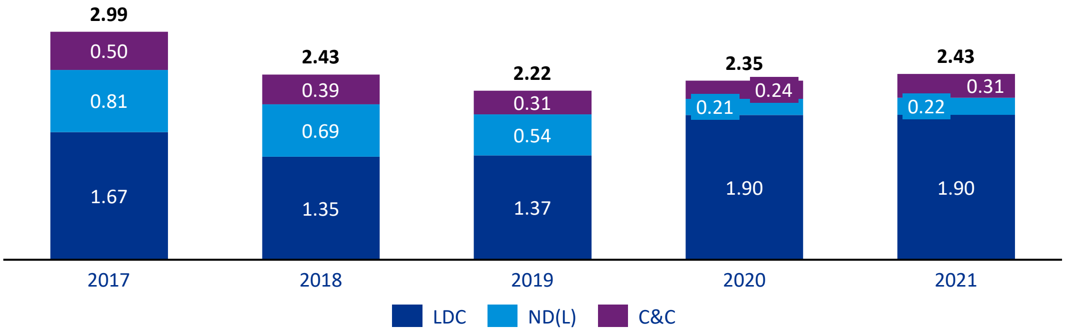
€130m

(NOK1,325m)[3]

Total tax revenue lost from C&C

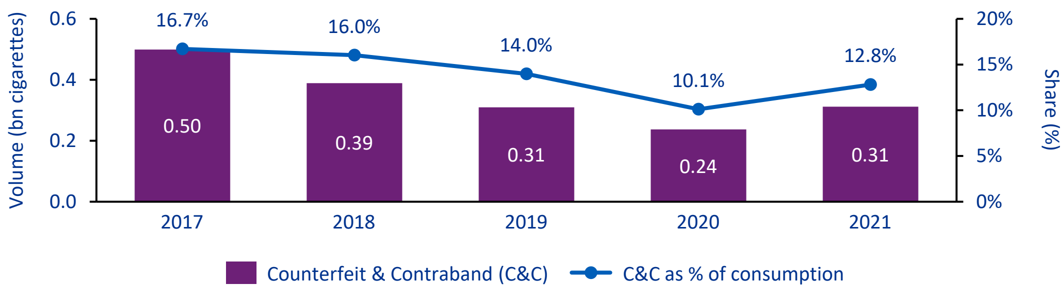
+€37m on 2020

Total consumption – 2017-2021 (bn cigarettes)[(1)(2)]

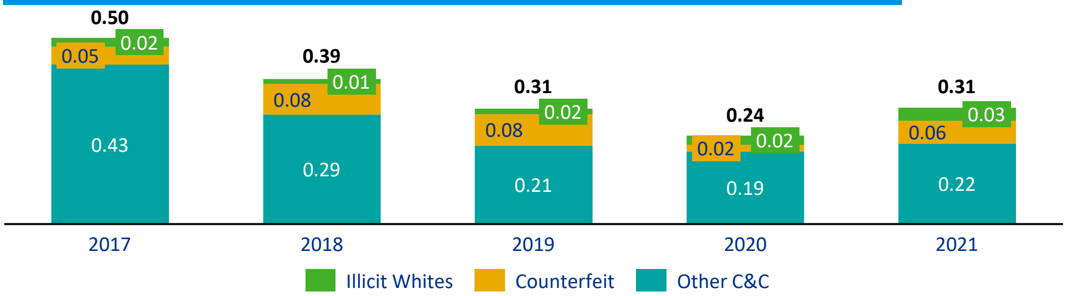


- C&C increased by c.2.7ppt (0.07bn cigarettes) in 2021, albeit still remained below pre-pandemic levels
- The 2021 increase was primarily driven by increased Counterfeit and Other C&C flows

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2017-2021[(1)(2)]



C&C consumption by type – 2017-2021 (bn cigarettes)[(1)(2)(a)]



Note: (a) C&C breakdown chart only includes Counterfeit volumes related to brands of manufactures who participate in the empty pack/yellow bag surveys; (b) Total tax revenue lost represents estimated excise and VAT if C&C volumes had been consumed legally in the country of study; (c) Due to rounding, segments highlighted in the charts may not add up to the total and year-on-year changes highlighted in the sidebar may differ from the charts

Source (1) KPMG EU Flows Calculation, 2017-21; (2) In Market Sales data; : (3) EUR 1 = NOK 10.214, InforEuro, European Commission, December 2021

Norway

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2017-2021[1][2]

Total Norway Consumption						
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**	**2020-21 (%)**
Legal Domestic Sales (LDS)	1.72	1.39	1.41	1.91	1.91	0%
Outflows	(0.05)	(0.03)	(0.04)	(0.01)	(0.01)	9%
Legal Domestic Consumption (LDC)	1.67	1.35	1.37	1.90	1.90	0%
Non-Domestic Legal (ND(L))	0.81	0.69	0.54	0.21	0.22	5%
Counterfeit and Contraband (C&C)	0.50	0.39	0.31	0.24	0.31	31%
Total Non-Domestic	1.31	1.08	0.85	0.45	0.54	19%
Total Consumption	**2.99**	**2.43**	**2.22**	**2.35**	**2.43**	**4%**

- Total cigarette consumption increased by c.4% in 2021 primarily driven by increased illicit non-domestic consumption (C&C)
- Total non-domestic inflows increased by c.19% (0.09bn) in 2021. An increase in flows from Sweden, Counterfeit and ‘Other’ sources was partially offset by a decline in flows from Poland and Duty Free
- As one of the highest priced markets in Europe, outflows from Norway are low

Total inflows by country of origin – 2017-2021[1][a]

Inflows to Norway					
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**
Poland	0.09	0.09	0.06	0.12	0.11
Duty Free Labelled	0.40	0.34	0.28	0.16	0.09
Sweden	0.31	0.21	0.16	0.02	0.09
Counterfeit	0.05	0.08	0.08	0.02	0.06
Lithuania	0.09	0.05	0.05	0.02	0.03
Other	0.38	0.31	0.20	0.11	0.15
Total Inflows	**1.31**	**1.08**	**0.85**	**0.45**	**0.54**

Total outflows by destination – 2017-2021[1][a]

Outflows from Norway					
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**
Denmark	(0.00)	(0.00)	(0.01)	0.00	(0.01)
Spain	(0.00)	0.00	(0.00)	0.00	(0.00)
UK	(0.01)	(0.01)	0.00	(0.00)	(0.00)
Other	(0.03)	(0.02)	(0.02)	(0.01)	(0.01)
Total Outflows	**(0.05)**	**(0.03)**	**(0.04)**	**(0.01)**	**(0.01)**

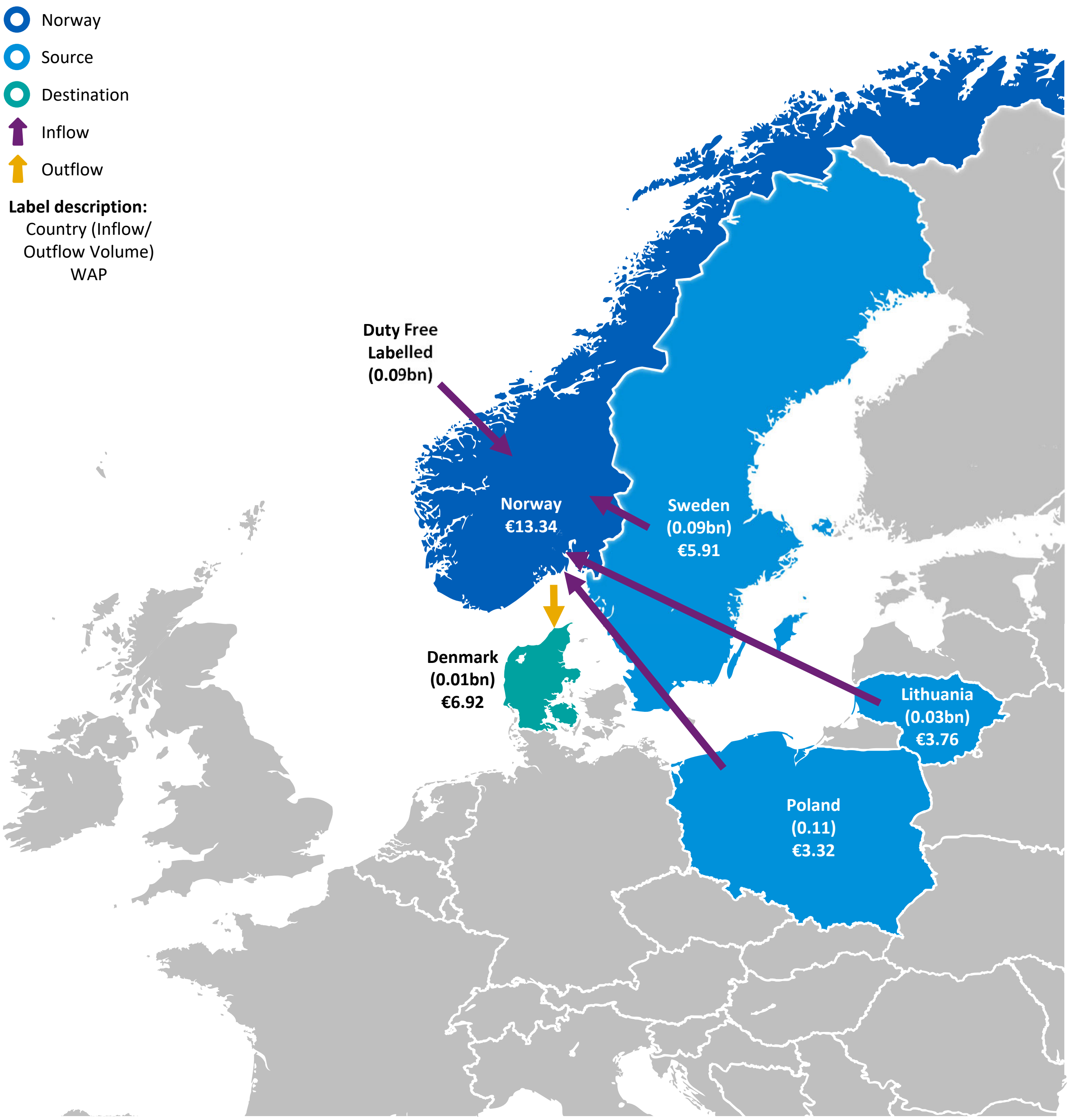
Note: (a) The inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows

Source: (1) KPMG EU Flows Calculation, 2017-21; (2) In Market Sales data;

Norway

Key flows

Key inflows and outflows[(1)(a)]



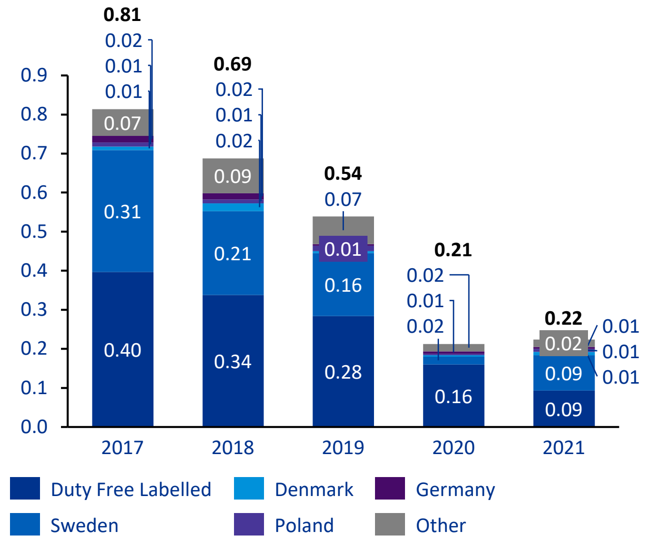
Note: (a) For countries with both inflows and outflows, only the larger of the two flows have been shown

Source: (1) KPMG EU Flows Calculation 2021

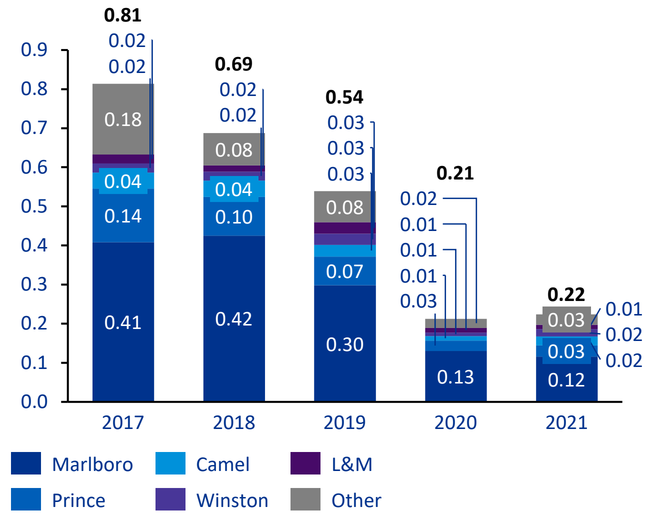
Norway

ND(L) and C&C flows

ND(L) by country of origin – 2017-2021 (bn cigarettes)[1]



ND(L) by brand – 2017-2021 (bn cigarettes) [1]

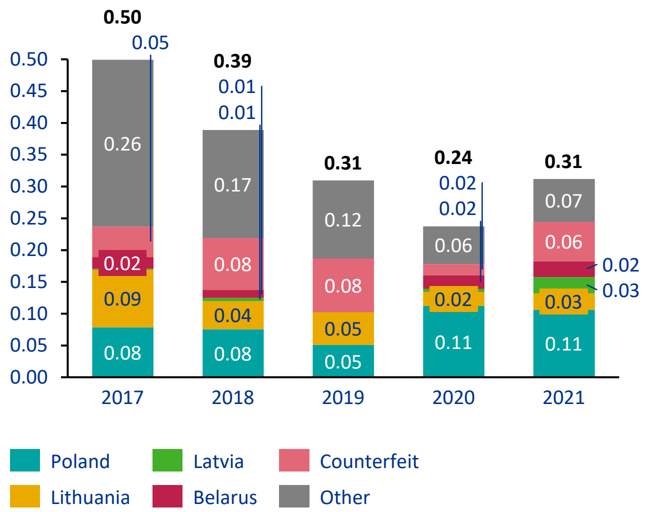


— Total non-domestic legal flows (ND(L)) remained at a similar level to 2020

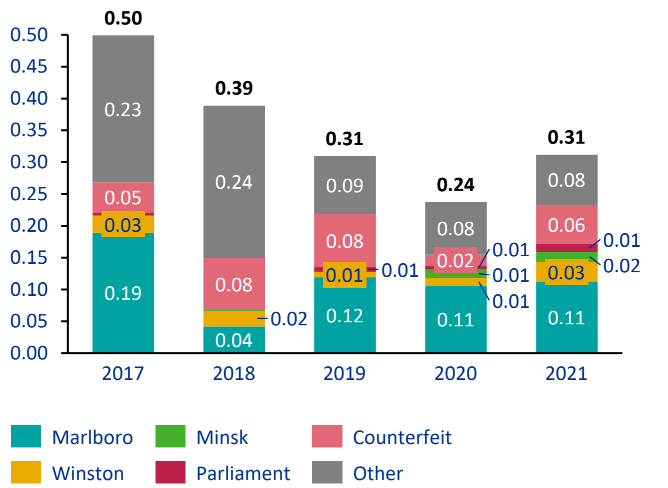
— Flows of Duty Free Labelled product and flows from Sweden together accounted for 82% of ND(L)

— Increased C&C flows were primarily driven by increased flows of Counterfeit and flows from Lithuania and Latvia

C&C by country of origin – 2017-2021 (bn cigarettes)[1](a)



C&C by brand – 2017-2021 (bn cigarettes)[1](a)



Note: (a) Only includes Counterfeit volumes related to brands of manufactures who participate in the empty pack/yellow bag surveys.

Source: (1) KPMG EU Flows Calculation, 2017-21;

Poland

Poland

C&C cigarette consumption and total consumption

41.9bn

Cigarettes consumed

+1.32bn on 2020

2.1bn

C&C cigarettes consumed

-1.43bn on 2020

4.9%

Of total consumption was C&C

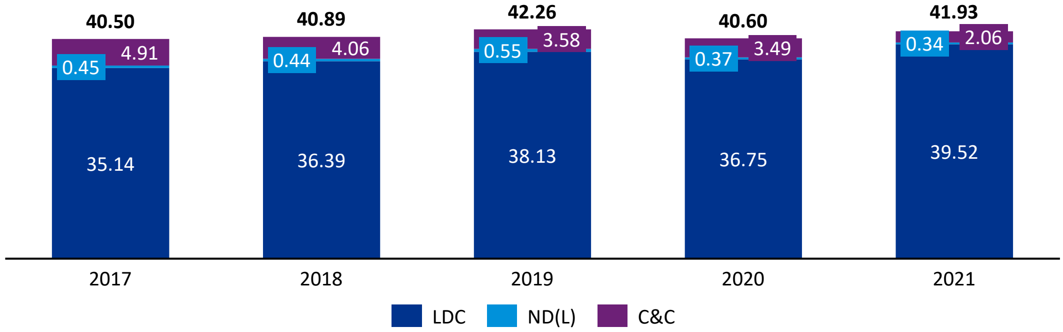
-3.67%pts on 2020

€279m

Total tax revenue lost from C&C

-€189m on 2020

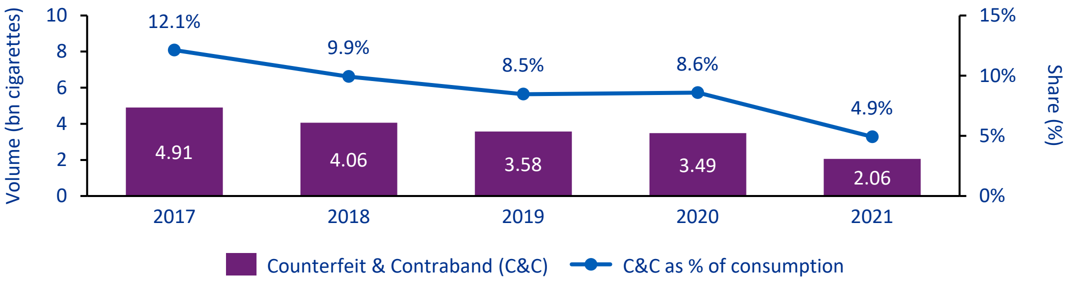
Total consumption – 2017-2021 (bn cigarettes)(1)(2)



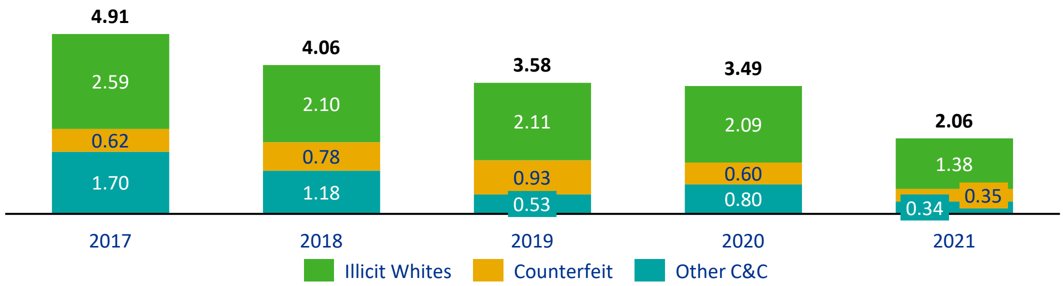
— C&C as a share of total consumption declined by 3.7ppt to 4.9%, the lowest in the reporting period

— All forms of C&C saw a decline in 2021, with the largest being Illicit Whites which declined by 0.7bn (34%)

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2017-2021(1)(2)



C&C consumption by type – 2017-2021 (bn cigarettes)(1)(2)(a)



Note: (a) C&C breakdown chart only includes Counterfeit volumes related to brands of manufactures who participate in the empty pack/yellow bag surveys; (b) Total tax revenue lost represents estimated excise and VAT if C&C volumes had been consumed legally in the country of study ; (c) Due to rounding, segments highlighted in the charts may not add up to the total and year-on-year changes highlighted in the sidebar may differ from the charts

Source: (1) KPMG EU Flows Calculation, 2017-21; (2) In Market Sales data; (3) Ministry of Family, Labour and Civic Policies

KPMG

Poland

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2017-2021[1][2]

Total Poland Consumption						
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**	**2020-21 (%)**
Legal Domestic Sales (LDS)	41.59	42.85	44.99	43.17	45.54	6%
Outflows	(6.44)	(6.46)	(6.85)	(6.42)	(6.03)	(6%)
Legal Domestic Consumption (LDC)	35.14	36.39	38.13	36.75	39.52	8%
Non-Domestic Legal (ND(L))	0.45	0.44	0.55	0.37	0.34	(6%)
Counterfeit and Contraband (C&C)	4.91	4.06	3.58	3.49	2.06	(41%)
Total Non-Domestic	5.35	4.50	4.12	3.85	2.41	(38%)
Total Consumption	**40.50**	**40.89**	**42.26**	**40.60**	**41.93**	**3%**

- Total cigarette consumption increased by 3% in 2021, but still remained below 2019 levels. This was mainly due to a 6% increase in legal domestic sales, partly offset by a 38% decline in non-domestic inflows
- Total non-domestic has declined by 1.4bn sticks in 2021, as Counterfeit flows and flows from Belarus and Ukraine declined
- Germany and UK remain the largest outflow markets. However, outflows to these markets have declined year-on-year since 2019

Total inflows by country of origin – 2017-2021[1][a]

Inflows to Poland					
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**
Belarus	1.83	1.30	1.08	1.52	1.01
Counterfeit	0.62	0.78	0.93	0.60	0.35
Ukraine	1.51	0.86	0.55	0.88	0.34
IWs with no country-specific labelling	0.78	0.86	0.96	0.33	0.30
Other	0.61	0.70	0.60	0.54	0.42
Total Inflows	**5.35**	**4.50**	**4.12**	**3.85**	**2.41**

Total outflows by destination – 2017-2021[1][a]

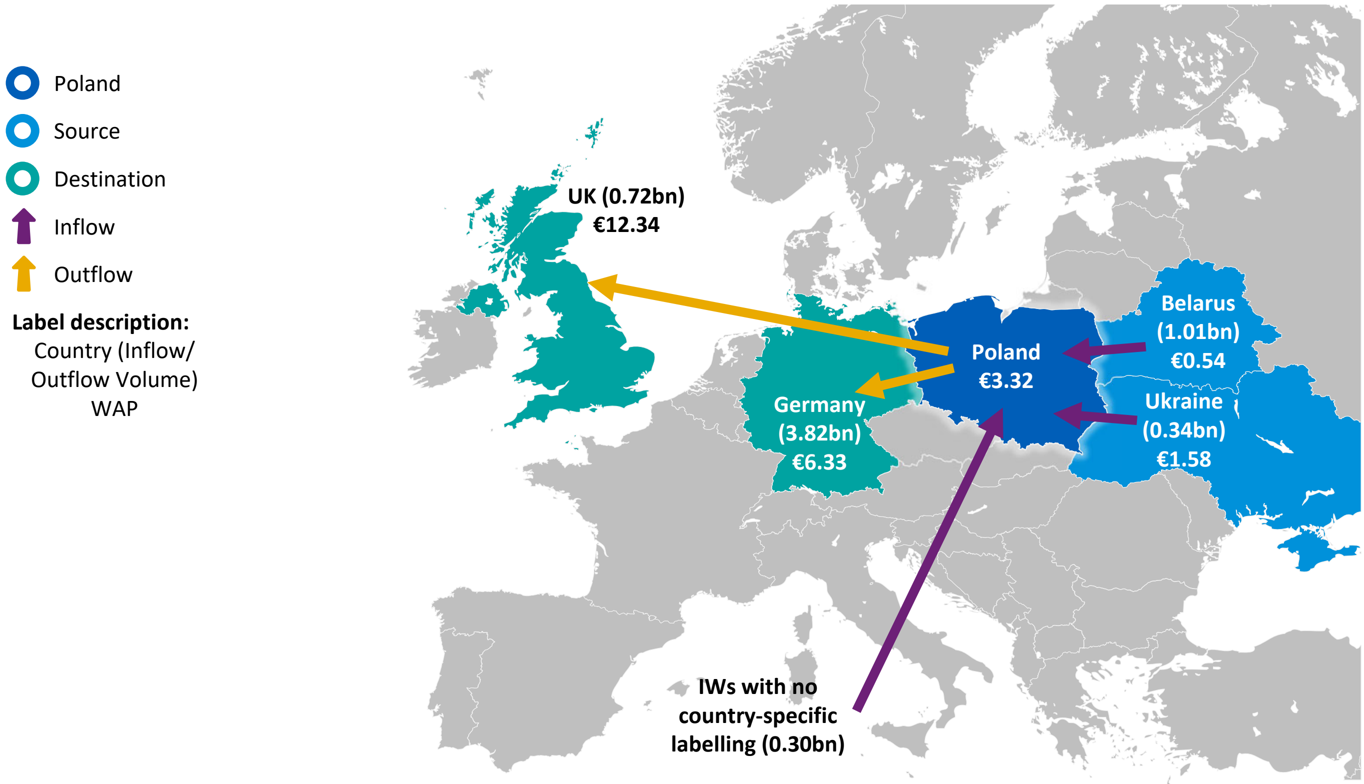
Outflows from Poland					
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**
Germany	(4.46)	(4.20)	(4.94)	(4.66)	(3.82)
UK	(1.39)	(1.51)	(1.14)	(1.03)	(0.72)
Other	(0.60)	(0.75)	(0.77)	(0.73)	(1.48)
Total Outflows	**(6.44)**	**(6.46)**	**(6.85)**	**(6.42)**	**(6.03)**

Note: (a) The inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows
Source: (1) KPMG EU Flows Calculation, 2017-21; (2) In Market Sales data;

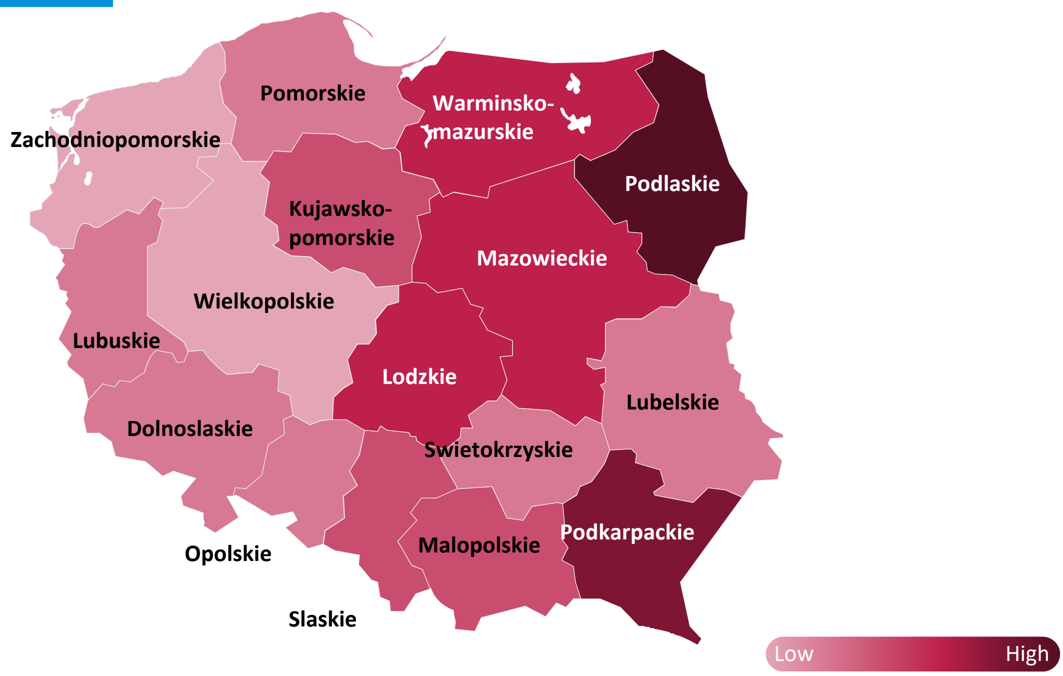
Poland

Key flows and C&C consumption patterns

Key inflows and outflows[(1)(a)]



C&C % by region[(1)(b)(c)]



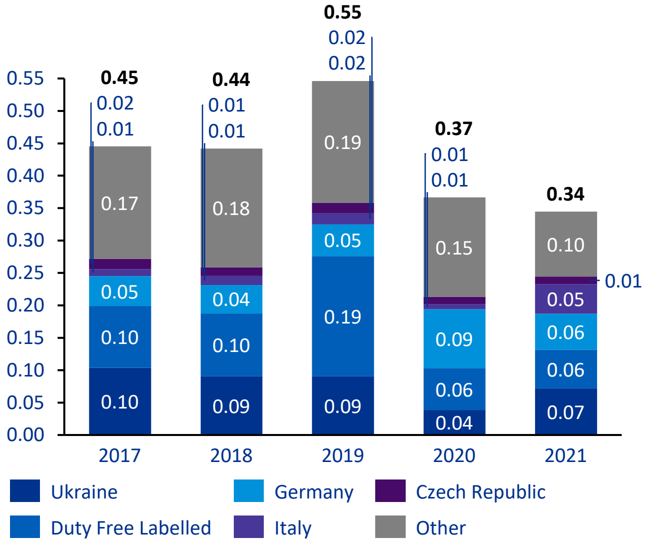
Note: (a) For countries with both inflows and outflows, only the larger of the two flows have been shown (b) C&C scale is relative to this market and is not comparable with other markets in the study, (c) Data not available for regions in grey

Source: (1) KPMG EU Flows Calculation 2021

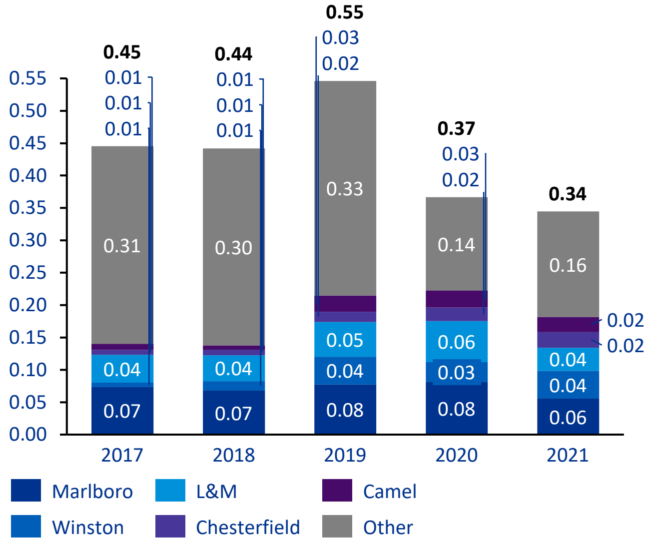
Poland

ND(L) and C&C flows

ND(L) by country of origin – 2017-2021 (bn cigarettes)[1]



ND(L) by brand – 2017-2021 (bn cigarettes)[1]

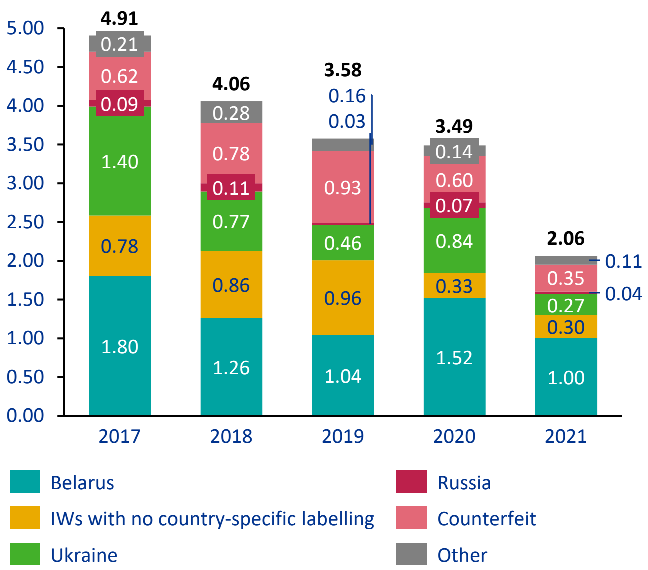


— Despite an overall decline in ND(L), legal inflows from Ukraine and Italy have increased

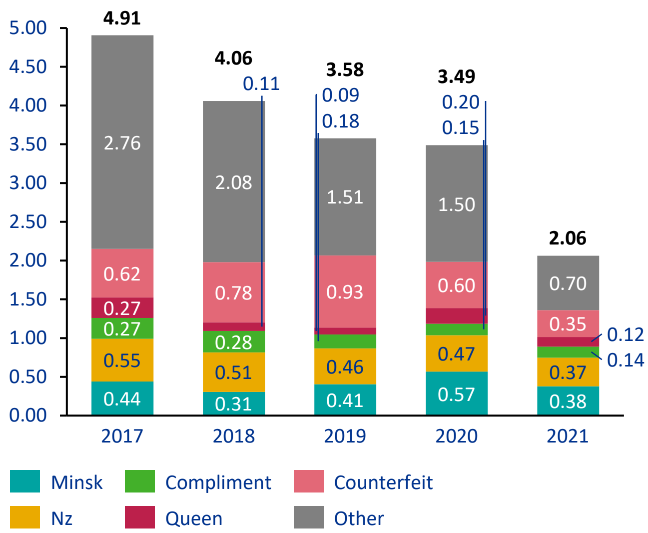
— However, inflows from Belarus and Ukraine are predominately illicit as volumes that can be legally imported are low due to a 40 cigarette limit per land traveller

— Counterfeit declined further in 2021 to 0.35bn, reaching the lowest level in the reporting period

C&C by country of origin – 2017-2021 (bn cigarettes)[1](a)

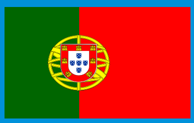


C&C by brand – 2017-2021 (bn cigarettes)[1](a)



Note: (a) Only includes Counterfeit volumes related to brands of manufactures who participate in the empty pack/yellow bag surveys.
Source: (1) KPMG EU Flows Calculation, 2017-21;

Portugal



Portugal

C&C cigarette consumption and total consumption

9.2bn

Cigarettes consumed

+0.13bn on 2020

0.6bn

C&C cigarettes consumed

+0.25bn on 2020

7.0%

Of total consumption was C&C

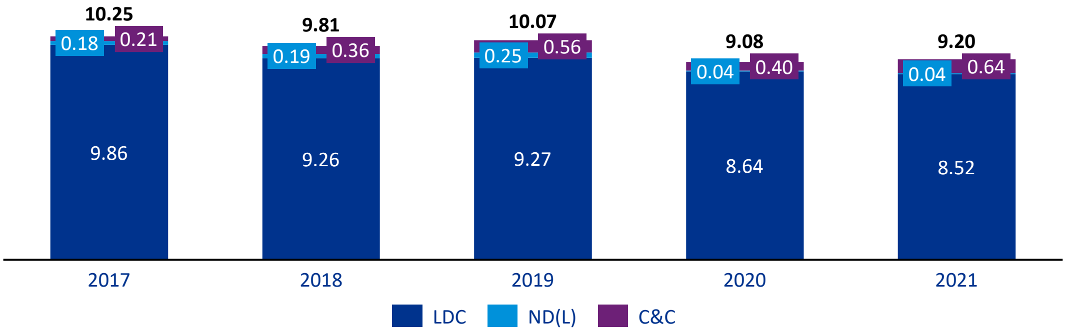
+2.60%pts on 2020

€113m

Total tax revenue lost from C&C

+€44m on 2020

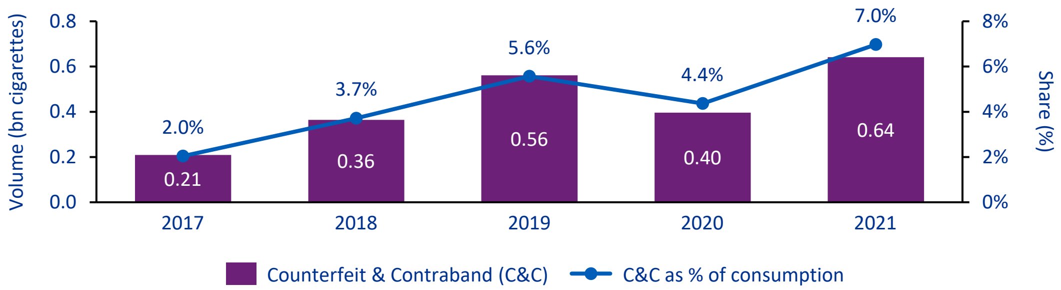
Total consumption – 2017-2021 (bn cigarettes)(1)(2)



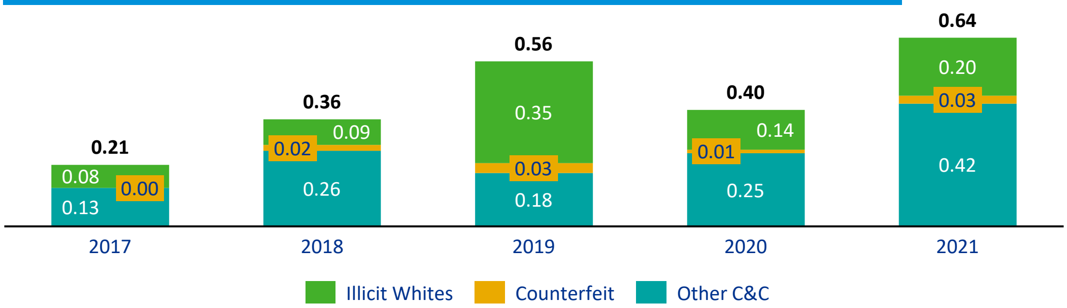
— C&C accounted for 7% of total cigarette consumption in 2021, an increase of 2.6ppt

— This increase was primarily driven by increased inflows of Other C&C and Illicit Whites cigarettes. Counterfeit volumes also increased, but to a lesser extent

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2017-2021(1)(2)



C&C consumption by type – 2017-2021 (bn cigarettes)(1)(2)



Note: (a) C&C breakdown chart only includes Counterfeit volumes related to brands of manufactures who participate in the empty pack/yellow bag surveys; (b) Total tax revenue lost represents estimated excise and VAT if C&C volumes had been consumed legally in the country of study; (c) Due to rounding, segments highlighted in the charts may not add up to the total and year-on-year changes highlighted in the sidebar may differ from the charts

Source: (1) KPMG EU Flows Calculation, 2017-21; (2) In Market Sales data

Portugal

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2017-2021[(1)(2)]

Total Portugal Consumption						
Billion cigarettes	2017	2018	2019	2020	2021	2020-21 (%)
Legal Domestic Sales (LDS)	10.23	9.68	9.77	8.99	8.77	(2%)
Outflows	(0.37)	(0.42)	(0.51)	(0.35)	(0.25)	(28%)
Legal Domestic Consumption (LDC)	9.86	9.26	9.27	8.64	8.52	(1%)
Non-Domestic Legal (ND(L))	0.18	0.19	0.25	0.04	0.04	6%
Counterfeit and Contraband (C&C)	0.21	0.36	0.56	0.40	0.64	62%
Total Non-Domestic	0.39	0.56	0.81	0.43	0.68	57%
Total Consumption	**10.25**	**9.81**	**10.07**	**9.08**	**9.20**	**1%**

— Total cigarette consumption increased by 1% in 2021, albeit remaining below 2019 levels. Reduced legal domestic consumption in 2021 was more than offset by an increase in non-domestic inflows

— Increased inflows were mainly due to larger inflows from Unspecified sources and Illicit Whites with no country specific labelling

— Outflows declined by c.28% in 2021. France remained the largest outflow destination, with Portugal being a popular holiday destination for French holidaymakers[(3)]

Total inflows by country of origin – 2017-2021[(1)(a)]

Inflows to Portugal					
Billion cigarettes	2017	2018	2019	2020	2021
Unspecified	0.00	0.01	0.00	0.09	0.33
IWs with no country-specific labelling	0.11	0.14	0.31	0.13	0.20
Andorra	0.01	0.08	0.09	0.09	0.08
Other	0.26	0.32	0.40	0.12	0.07
Total Inflows	**0.39**	**0.56**	**0.81**	**0.43**	**0.68**

Total outflows by destination – 2017-2021[(1)(a)]

Outflows from Portugal					
Billion cigarettes	2017	2018	2019	2020	2021
France	(0.13)	(0.24)	(0.22)	(0.20)	(0.13)
Spain	(0.05)	(0.01)	(0.02)	(0.01)	(0.03)
UK	(0.08)	(0.04)	(0.13)	(0.07)	(0.02)
Other	(0.11)	(0.13)	(0.13)	(0.07)	(0.07)
Total Outflows	**(0.37)**	**(0.42)**	**(0.51)**	**(0.35)**	**(0.25)**

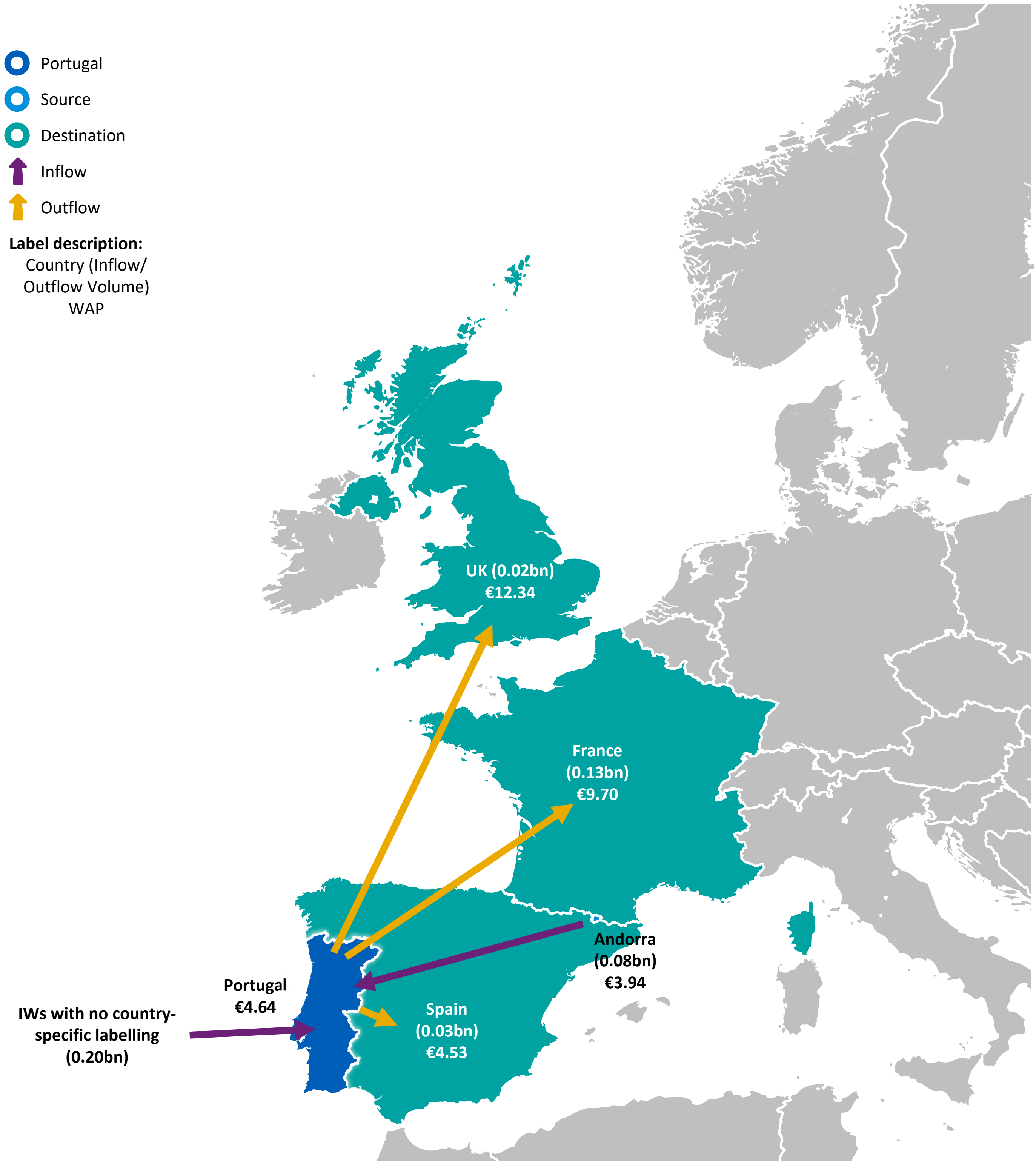
Note: (a) The inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows

Source: (1) KPMG EU Flows Calculation, 2017-21; (2) In Market Sales data; (3) https://www.statista.com/statistics/1257442/top-holiday-destinations-abroad-france/

Portugal

Key flows

Key inflows and outflows[1](a)



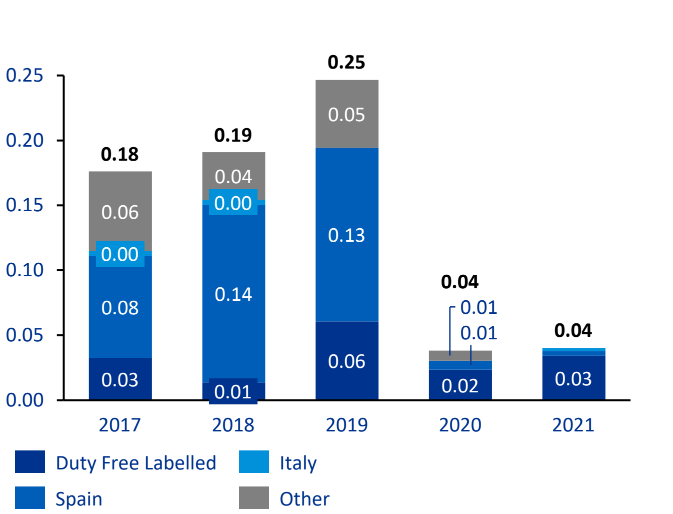
Note: (a) For countries with both inflows and outflows, only the larger of the two flows have been shown

Source: (1) KPMG EU Flows Calculation 2021

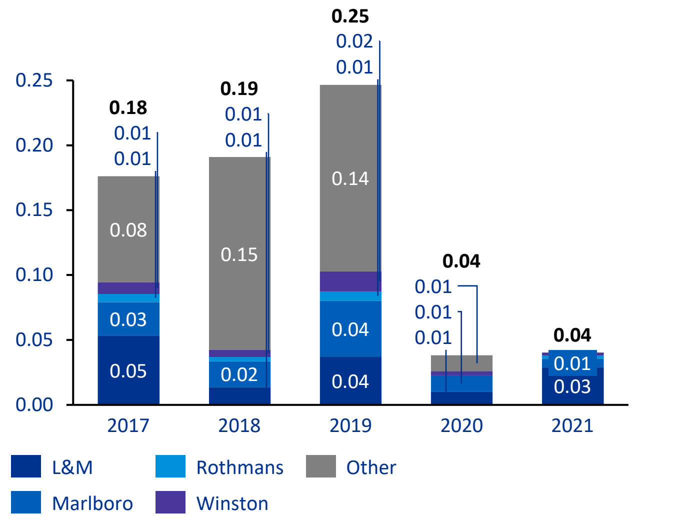
Portugal

ND(L) and C&C flows

ND(L) by country of origin – 2017-2021 (bn cigarettes)[1]



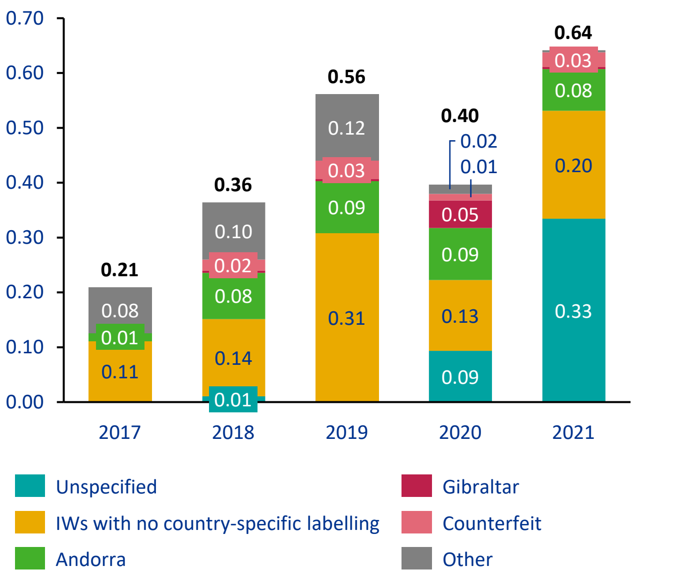
ND(L) by brand – 2017-2021 (bn cigarettes)[1]



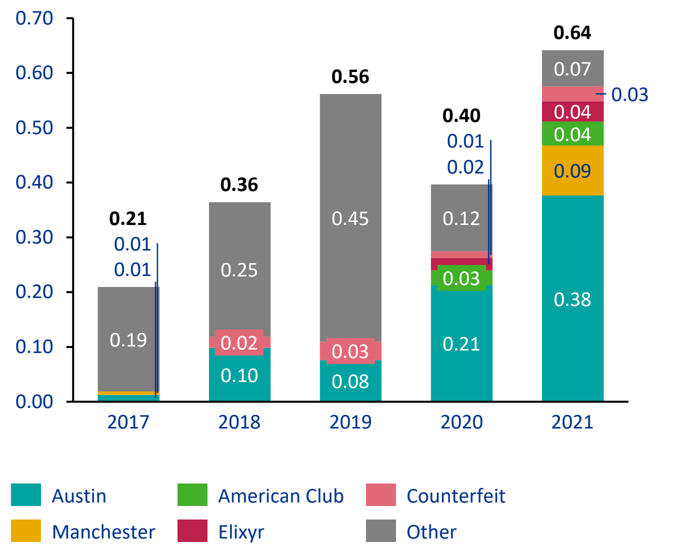
— Non-domestic legal (ND(L)) inflows remained similar to 2020 levels

— Increased C&C inflows were primarily driven by an increase in inflows from 'Unspecified' origins and Illicit Whites with no country-specific labelling

C&C by country of origin – 2017-2021 (bn cigarettes)[1](a)



C&C by brand – 2017-2021 (bn cigarettes)[1](a)



Note: (a) Only includes Counterfeit volumes related to brands of manufactures who participate in the empty pack/yellow bag surveys.

Source: (1) KPMG EU Flows Calculation, 2017-21;

Romania

Romania

C&C cigarette consumption and total consumption

26.6bn

Cigarettes consumed

+0.60bn on 2020

2.1bn

C&C cigarettes consumed

+0.04bn on 2020

7.9%

Of total consumption was C&C

-0.04%pts on 2020

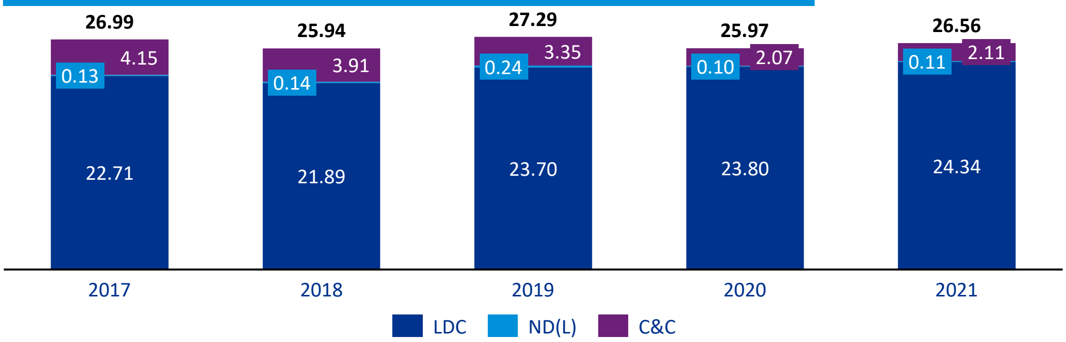
€310m

(LEI 1,536m)[3]

Total tax revenue lost from C&C

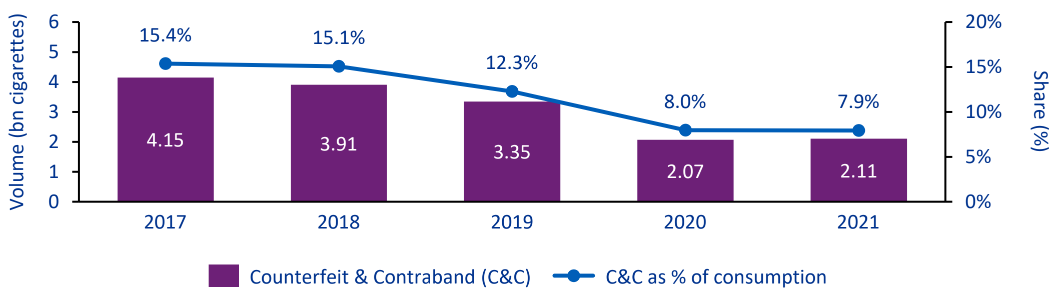
+€15m on 2020

Total consumption – 2017-2021 (bn cigarettes)[(1)(2)]

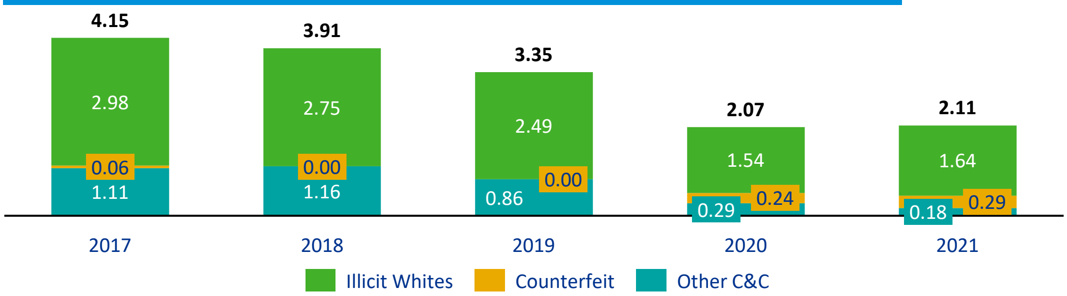


- C&C as a share of total cigarette consumption remained stable at c.8% in 2021
- An increase in Illicit Whites and Counterfeit was offset by a decrease in Other C&C flows

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2017-2021[(1)(2)]



C&C consumption by type – 2017-2021 (bn cigarettes)[(1)(2)(a)]



Note: (a) C&C breakdown chart only includes Counterfeit volumes related to brands of manufactures who participate in the empty pack/yellow bag surveys; (b) Total tax revenue lost represents estimated excise and VAT if C&C volumes had been consumed legally in the country of study ; (c) Due to rounding, segments highlighted in the charts may not add up to the total and year-on-year changes highlighted in the sidebar may differ from the charts

Source: (1) KPMG EU Flows Calculation, 2017-21; (2) In Market Sales data; (3) EUR 1 = LEI 4.950, InforEuro, European Commission, December 2021

Romania

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2017-2021[1][2]

Total Romania Consumption						
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**	**2020-21 (%)**
Legal Domestic Sales (LDS)	24.51	24.23	25.14	24.90	25.70	3%
Outflows	(1.80)	(2.34)	(1.44)	(1.10)	(1.36)	23%
Legal Domestic Consumption (LDC)	22.71	21.89	23.70	23.80	24.34	2%
Non-Domestic Legal (ND(L))	0.13	0.14	0.24	0.10	0.11	13%
Counterfeit and Contraband (C&C)	4.15	3.91	3.35	2.07	2.11	2%
Total Non-Domestic	4.28	4.05	3.58	2.17	2.22	2%
Total Consumption	**26.99**	**25.94**	**27.29**	**25.97**	**26.56**	**2%**

- Total cigarette consumption increased by 2% or 0.58bn, primarily driven by an increase in legal domestic sales
- Increasing inflows of IWs with no country-specific labelling and Counterfeit were partially offset by a decrease in inflows from smaller sources included within the 'Other' category
- Illicit Whites with no country-specific labelling accounted for 63% of total inflows in 2021
- Outflows increased in 2021, primarily due to increased outflows to the UK, albeit these still remained lower than in 2019

Total inflows by country of origin – 2017-2021[1][a]

Inflows to Romania					
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**
IWs with no country-specific labelling	2.43	2.35	2.13	1.10	1.40
Counterfeit	0.06	0.00	0.00	0.24	0.29
Other	1.79	1.70	1.46	0.83	0.53
Total Inflows	**4.28**	**4.05**	**3.58**	**2.17**	**2.22**

Total outflows by destination – 2017-2021[1][a]

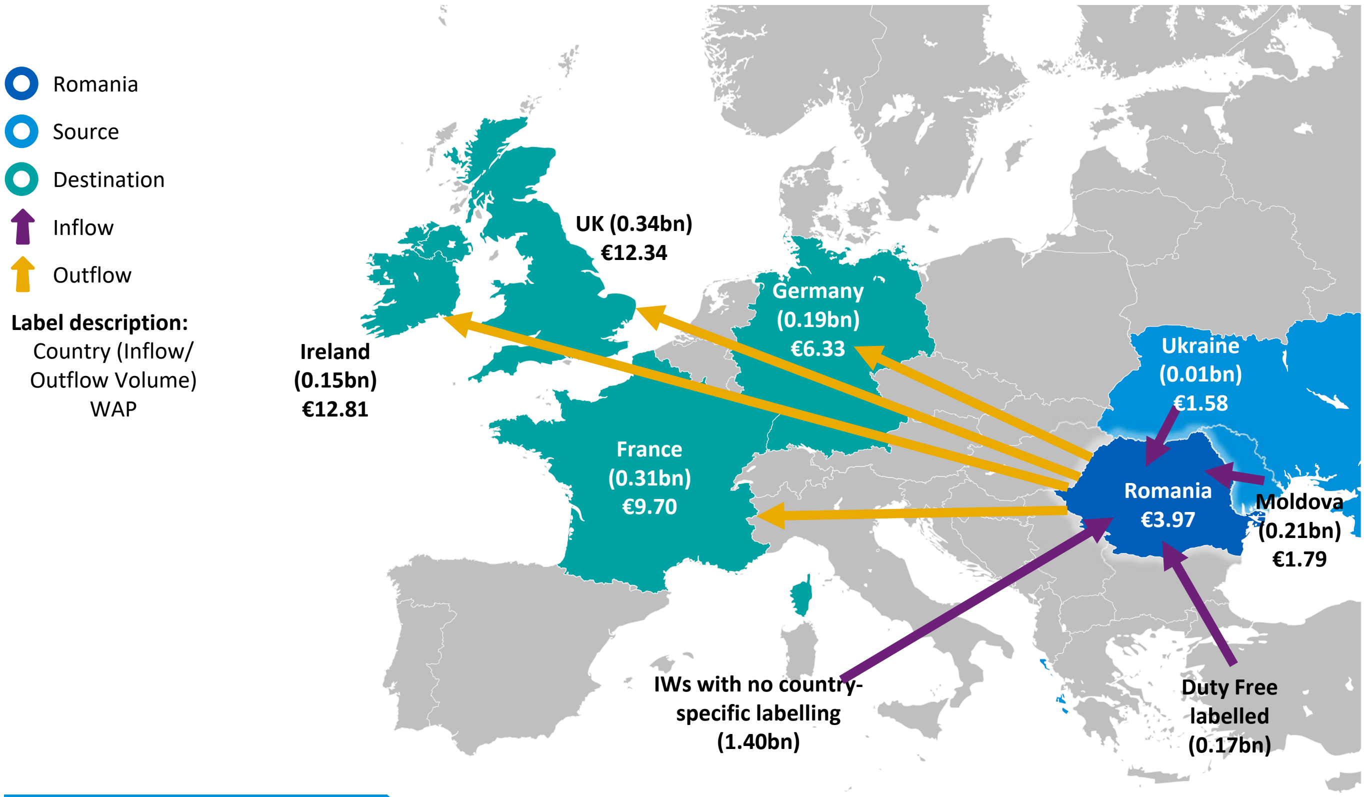
Outflows from Romania					
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**
UK	(0.93)	(1.06)	(0.44)	(0.16)	(0.34)
France	(0.17)	(0.31)	(0.20)	(0.29)	(0.31)
Germany	(0.19)	(0.22)	(0.22)	(0.20)	(0.19)
Ireland	(0.10)	(0.17)	(0.11)	(0.19)	(0.15)
Other	(0.41)	(0.58)	(0.48)	(0.26)	(0.36)
Total Outflows	**(1.80)**	**(2.34)**	**(1.44)**	**(1.10)**	**(1.36)**

Note: (a) The inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows
Source: (1) KPMG EU Flows Calculation, 2017-21; (2) In Market Sales data;

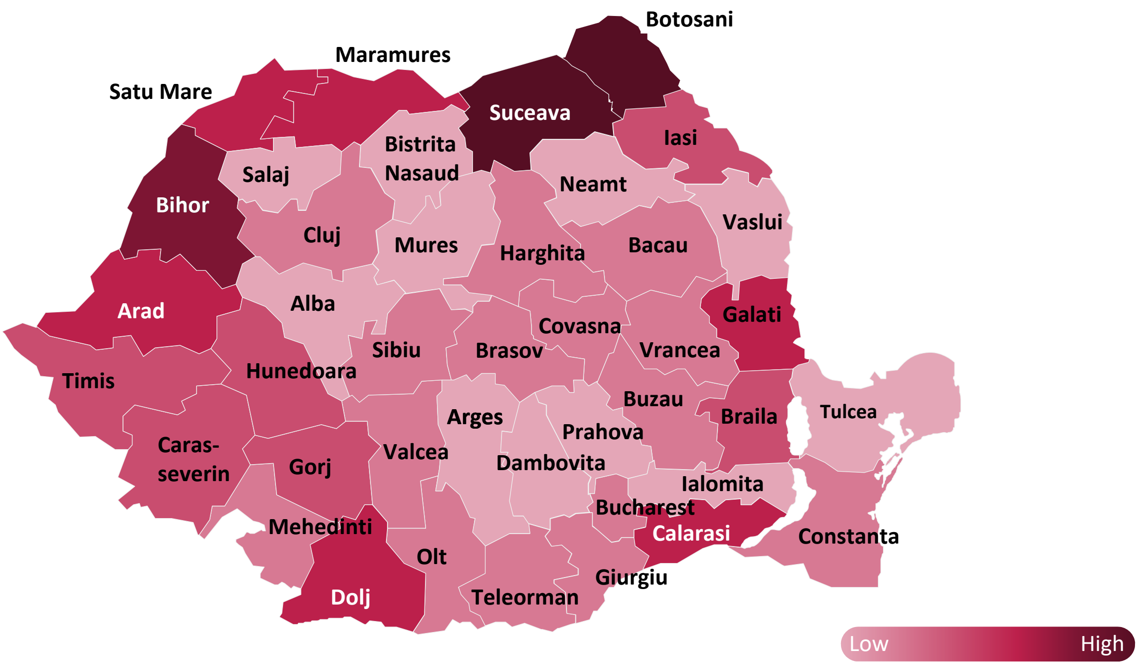
Romania

Key flows and C&C consumption patterns

Key inflows and outflows(1)(a)



C&C % by region(1)(b)(c)



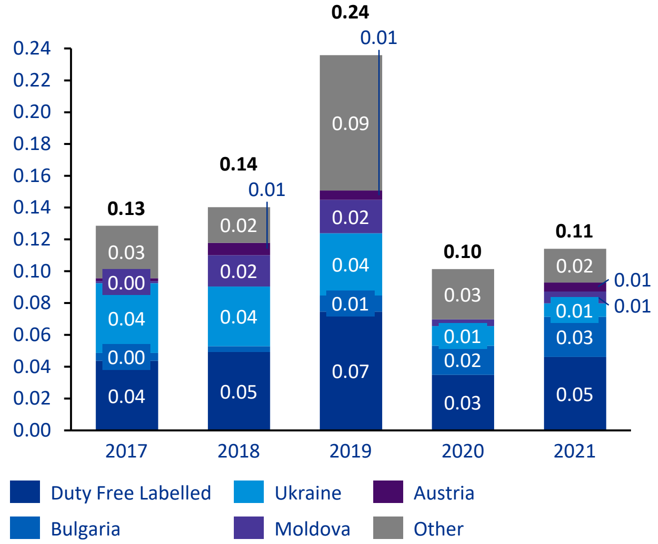
Note: (a) For countries with both inflows and outflows, only the larger of the two flows have been shown (b) C&C scale is relative to this market and is not comparable with other markets in the study, (c) Data not available for regions in grey

Source: (1) KPMG EU Flows Calculation 2021

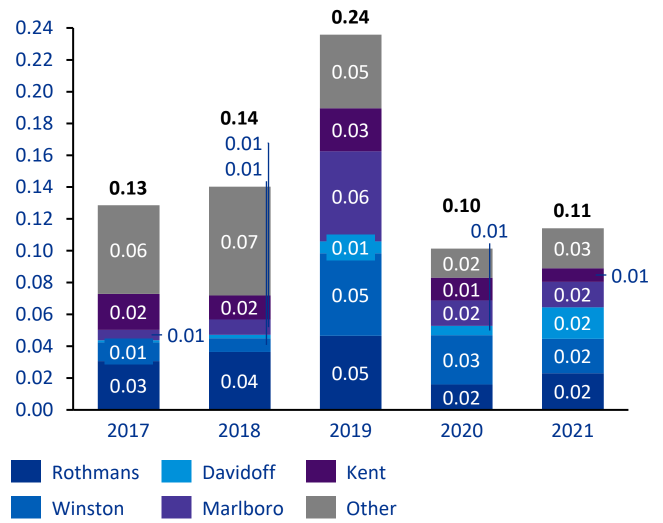
Romania

ND(L) and C&C flows

ND(L) by country of origin – 2017-2021 (bn cigarettes)[1]



ND(L) by brand – 2017-2021 (bn cigarettes)[1]

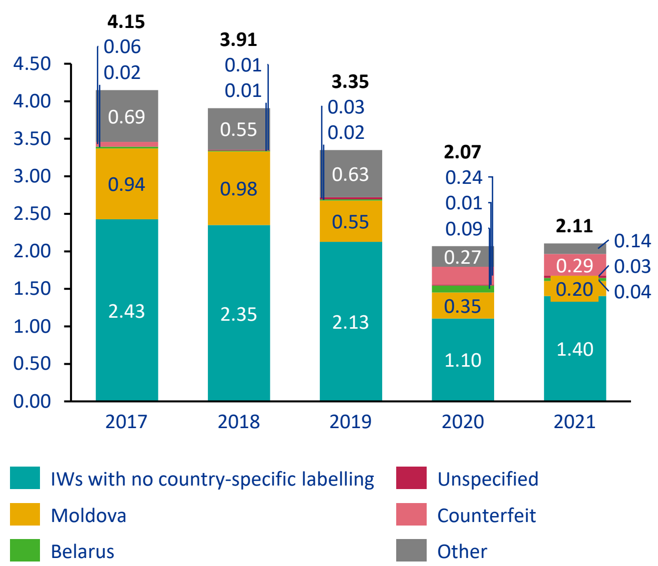


— Non-domestic legal (ND(L)) flows increased marginally by 0.01bn in 2021

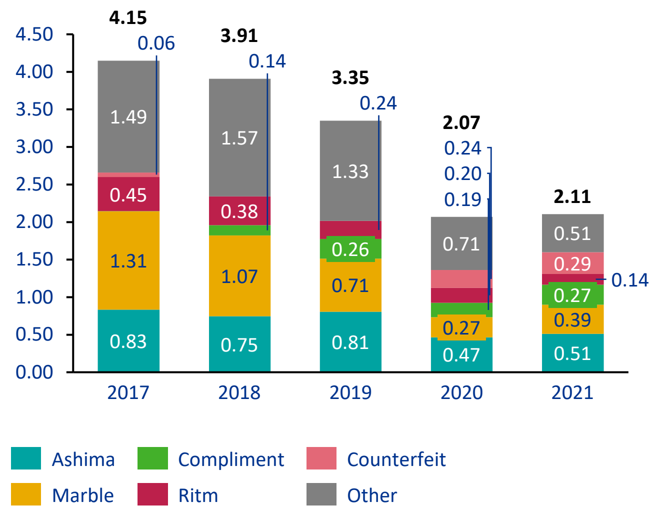
— Illicit Whites with no country specific labelling increased in 2021 and continued to remain the primary C&C source

— Regional C&C was the highest in the North of the country bordering Moldova and Ukraine

C&C by country of origin – 2017-2021 (bn cigarettes)[1](a)

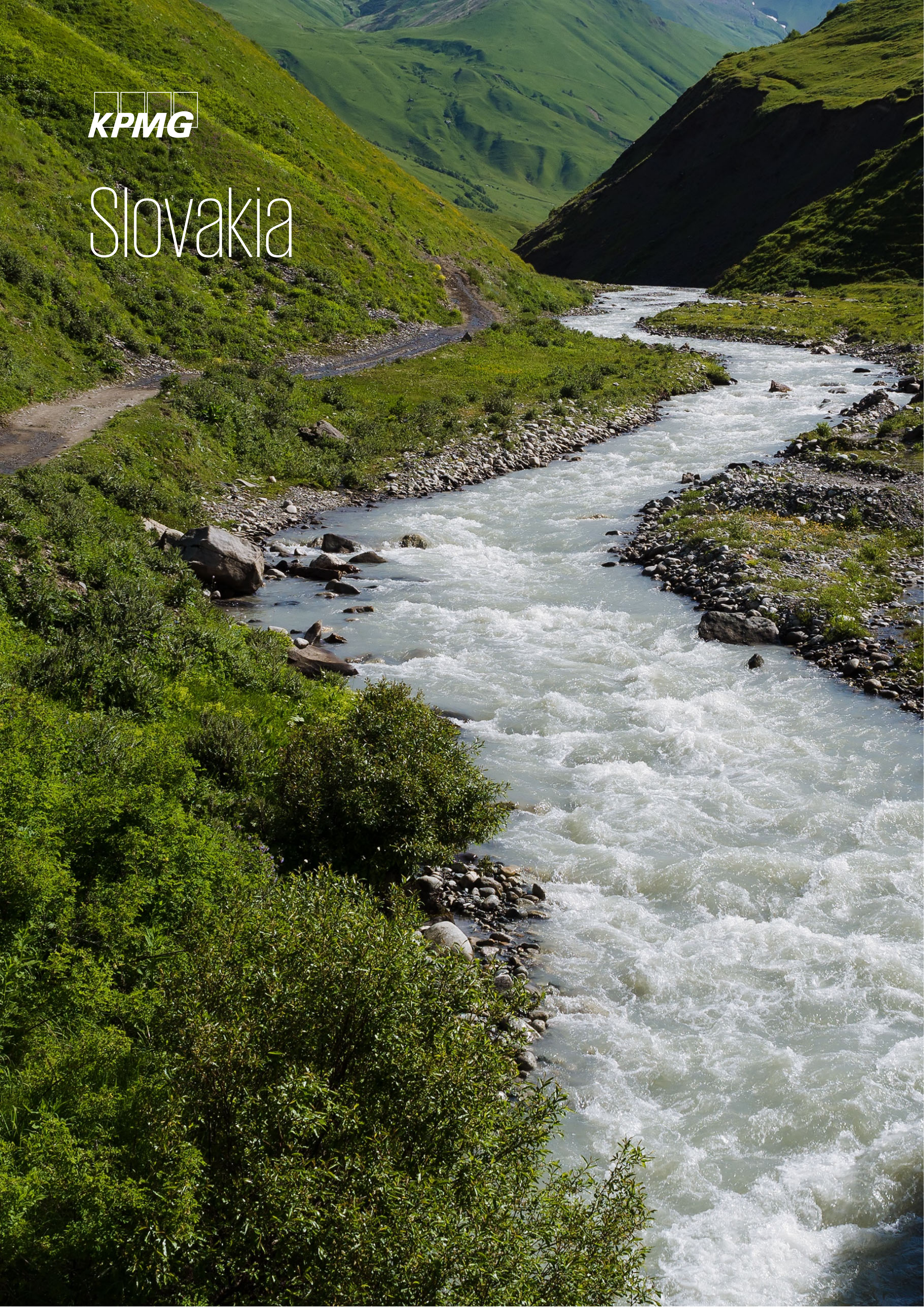


C&C by brand – 2017-2021 (bn cigarettes)[1](a)



Note: (a) Only includes Counterfeit volumes related to brands of manufactures who participate in the empty pack/yellow bag surveys.

Source: (1) KPMG EU Flows Calculation, 2017-21;



Slovakia

Slovakia

6.4bn

Cigarettes consumed

-0.46bn on 2020

0.2bn

C&C cigarettes consumed

-0.01bn on 2020

2.7%

Of total consumption was C&C

+0.08%pts on 2020

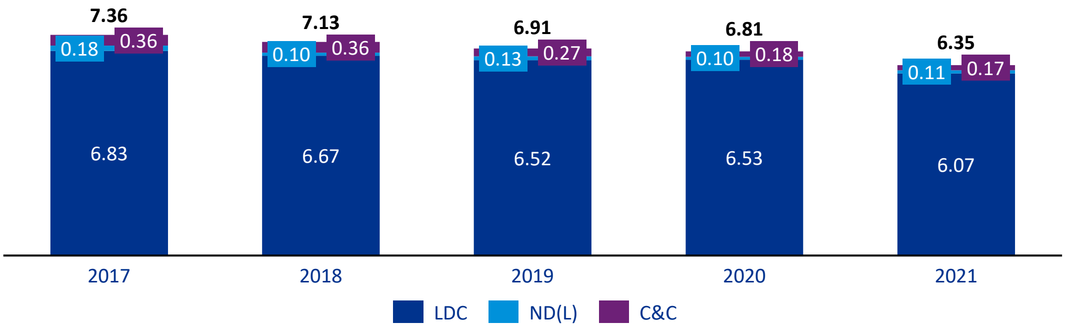
€25m

Total tax revenue lost from C&C

+€1m on 2020

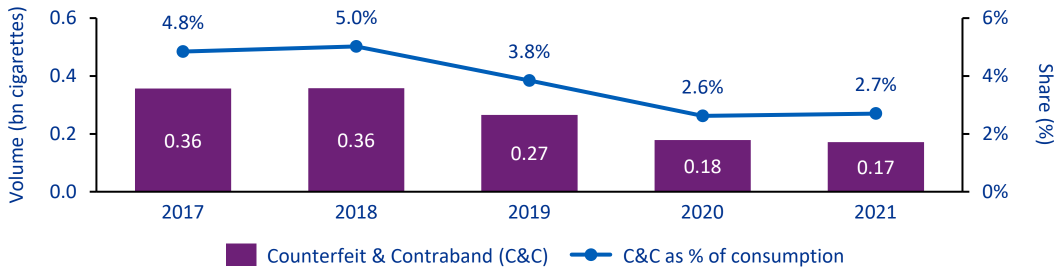
C&C cigarette consumption and total consumption

Total consumption – 2017-2021 (bn cigarettes)(1)(2)

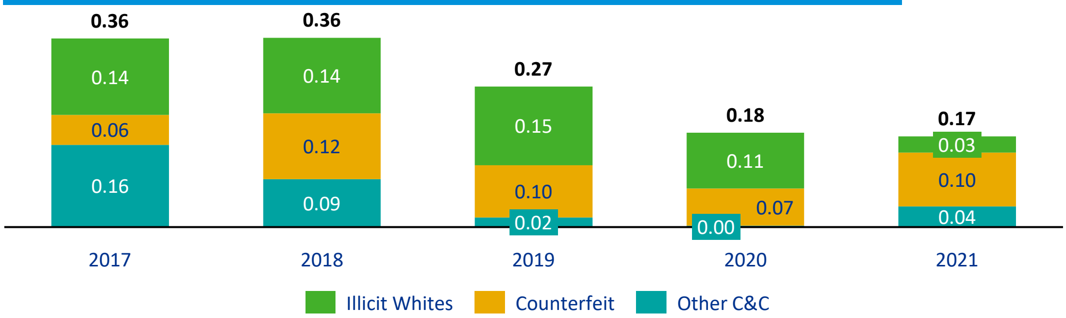


- C&C accounted for 2.7% of cigarette consumption in 2021, largely in line with 2020
- Declining Illicit Whites inflows were offset by an increase in Counterfeit and Other C&C

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2017-2021(1)(2)



C&C consumption by type – 2017-2021 (bn cigarettes)(1)(2)(a)



Note: (a) C&C breakdown chart only includes Counterfeit volumes related to brands of manufactures who participate in the empty pack/yellow bag surveys; (b) Total tax revenue lost represents estimated excise and VAT if C&C volumes had been consumed legally in the country of study ; (c) Due to rounding, segments highlighted in the charts may not add up to the total and year-on-year changes highlighted in the sidebar may differ from the charts

Source: (1) KPMG EU Flows Calculation, 2017-21; (2) In Market Sales data

Slovakia

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2017-2021[1][2]

Total Slovakia Consumption						
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**	**2020-21 (%)**
Legal Domestic Sales (LDS)	7.20	7.13	7.08	6.90	6.36	(8%)
Outflows	(0.37)	(0.46)	(0.57)	(0.37)	(0.29)	(22%)
Legal Domestic Consumption (LDC)	6.83	6.67	6.52	6.53	6.07	(7%)
Non-Domestic Legal (ND(L))	0.18	0.10	0.13	0.10	0.11	5%
Counterfeit and Contraband (C&C)	0.36	0.36	0.27	0.18	0.17	(4%)
Total Non-Domestic	0.53	0.46	0.39	0.28	0.28	(1%)
Total Consumption	**7.36**	**7.13**	**6.91**	**6.81**	**6.35**	**(7%)**

- Total cigarette consumption declined by c.7% (0.46bn), primarily due to lower legal domestic sales
- Total inflows remained in line with 2020 volumes, but with an increase in Counterfeit and Duty Free inflows offset by declines from other sources
- Counterfeit accounted for 37% of total inflows in 2021 (versus 25% in 2020)
- Higher-priced Austria and Germany remained the main outflow markets, albeit with declining volumes

Total inflows by country of origin – 2017-2021[1][a]

Inflows to Slovakia					
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**
Counterfeit	0.06	0.12	0.10	0.07	0.10
Duty Free Labelled	0.05	0.04	0.02	0.02	0.05
Czech Republic	0.07	0.02	0.06	0.06	0.05
IWs with no country-specific labelling	0.14	0.14	0.13	0.07	0.03
Other	0.23	0.13	0.08	0.07	0.05
Total Inflows	**0.53**	**0.46**	**0.39**	**0.28**	**0.28**

Total outflows by destination – 2017-2021[1][a]

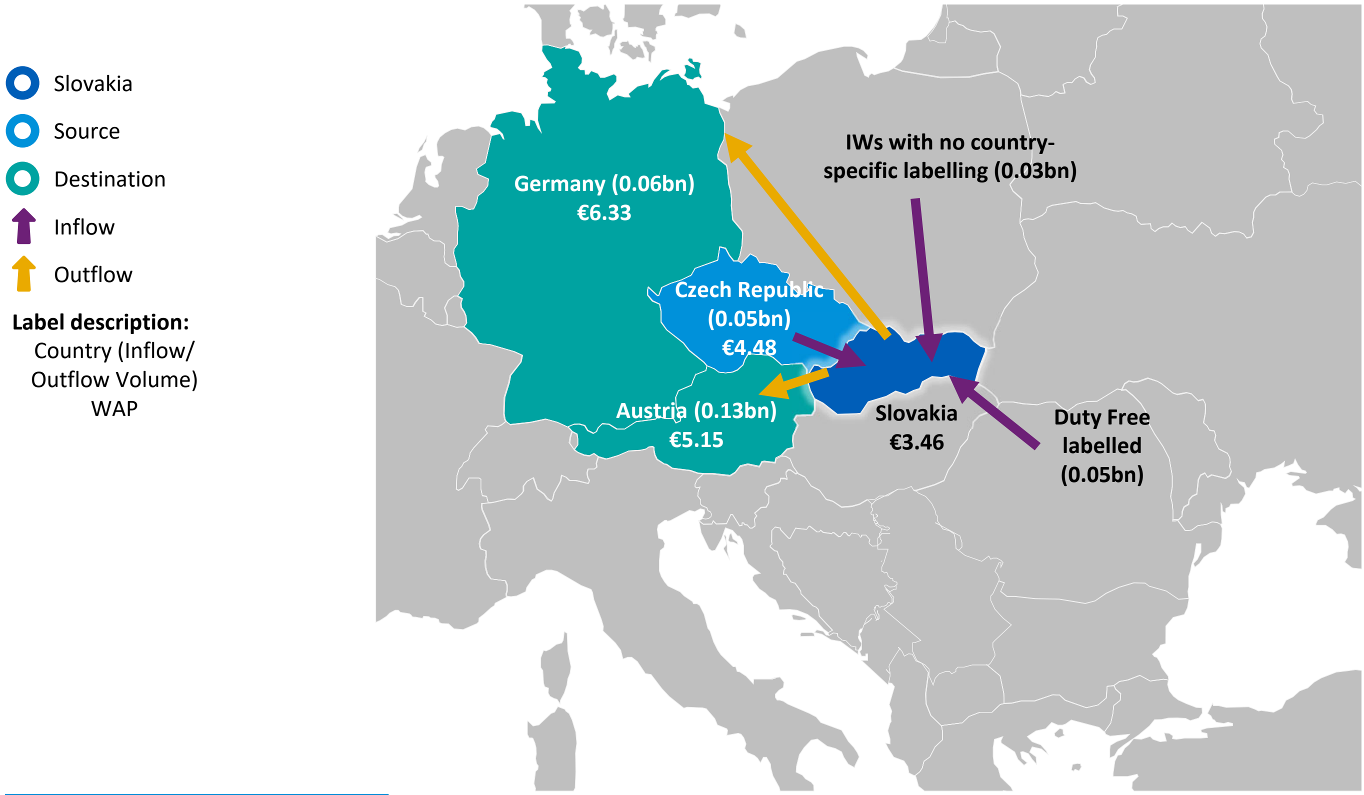
Outflows from Slovakia					
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**
Austria	(0.17)	(0.18)	(0.28)	(0.15)	(0.13)
Germany	(0.06)	(0.08)	(0.10)	(0.10)	(0.06)
Czech Republic	(0.02)	(0.07)	(0.10)	(0.03)	(0.05)
Other	(0.13)	(0.13)	(0.09)	(0.08)	(0.04)
Total Outflows	**(0.37)**	**(0.46)**	**(0.57)**	**(0.37)**	**(0.29)**

Note: (a) The inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows
Source: (1) KPMG EU Flows Calculation, 2017-21; (2) In Market Sales data;

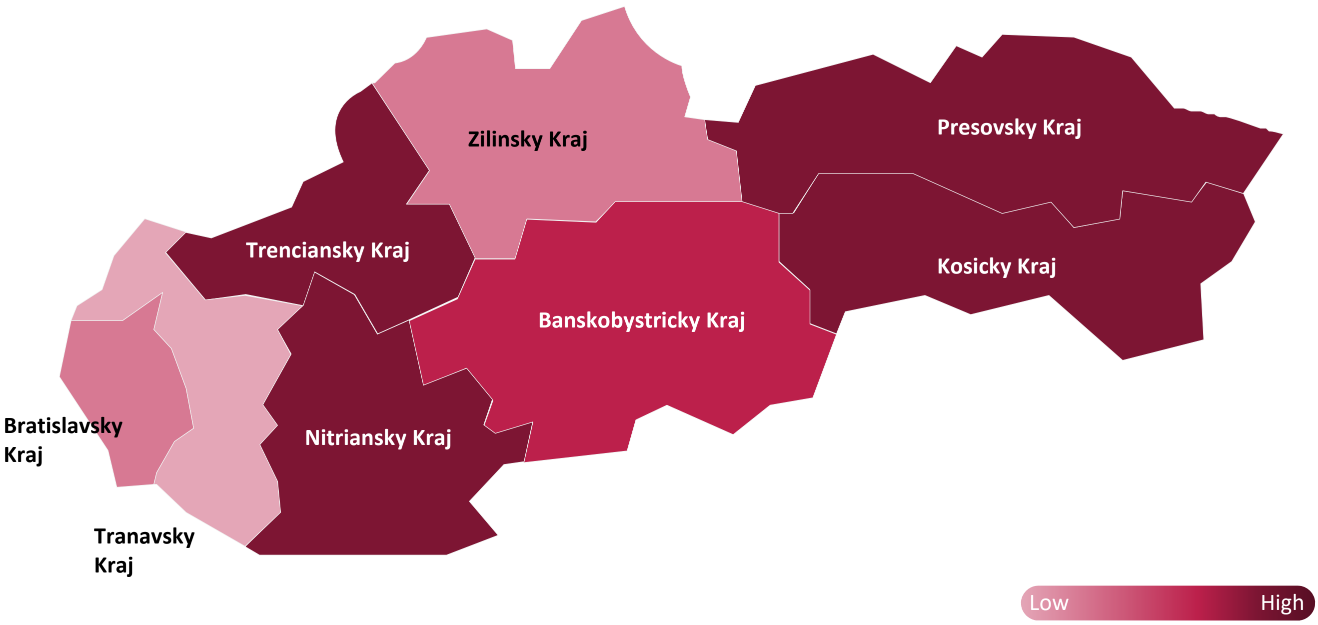
Slovakia

Key flows and C&C consumption patterns

Key inflows and outflows[1](a)



C&C % by region[1](b)(c)



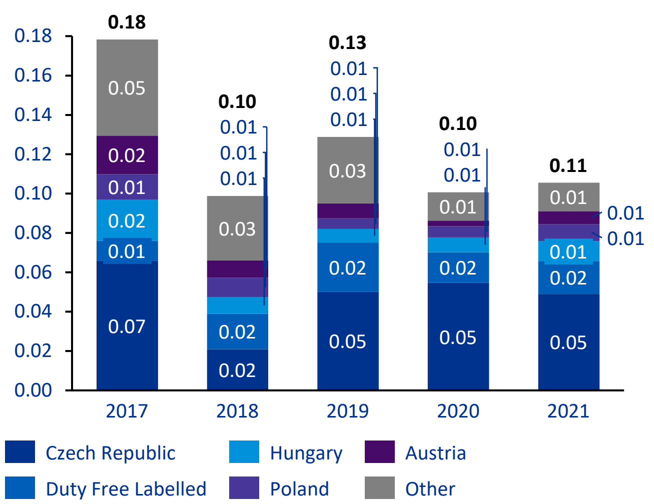
Note: (a) For countries with both inflows and outflows, only the larger of the two flows have been shown (b) C&C scale is relative to this market and is not comparable with other markets in the study, (c) Data not available for regions in grey

Source: (1) KPMG EU Flows Calculation 2021

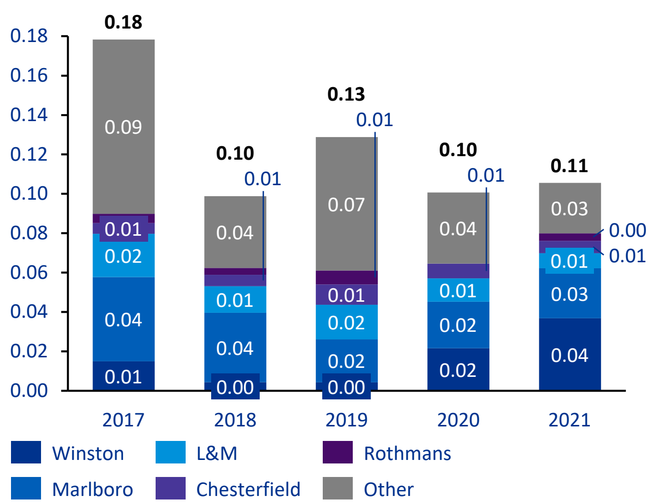
Slovakia

ND(L) and C&C flows

ND(L) by country of origin – 2017-2021 (bn cigarettes)(1)



ND(L) by brand – 2017-2021 (bn cigarettes)(1)

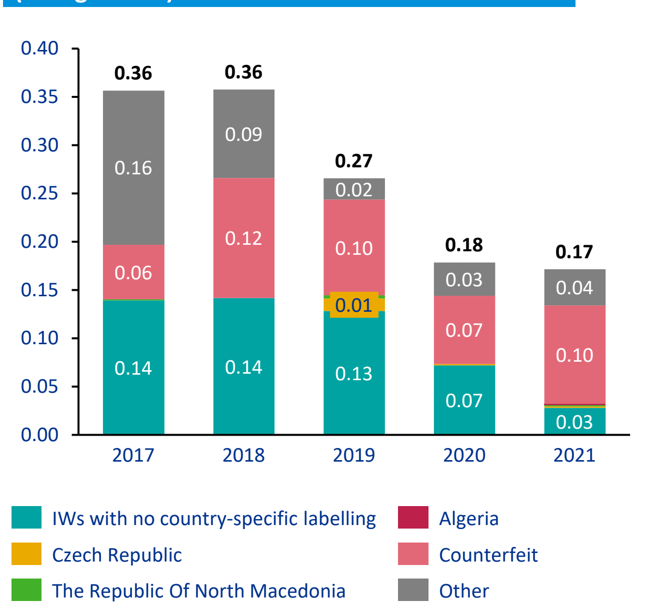


— Non-domestic inflows (ND(L)) were largely in line with 2020

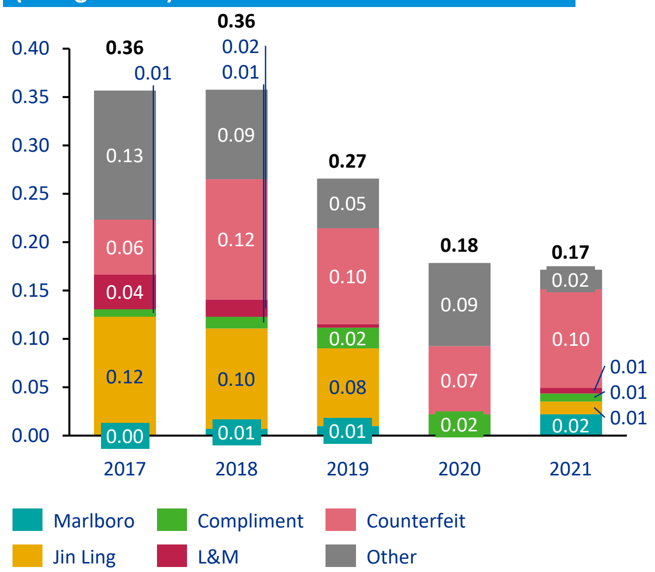
— Inflows from neighbouring Czech Republic were considered predominantly legal due to the high travel volumes between the two countries

— Total C&C inflows were also largely in line with 2020, albeit with an increase in Counterfeit offset by a decline in Illicit Whites with no country-specific labelling

C&C by country of origin – 2017-2021 (bn cigarettes)(1)(a)



C&C by brand – 2017-2021 (bn cigarettes)(1)(a)



Note: (a) Only includes Counterfeit volumes related to brands of manufactures who participate in the empty pack/yellow bag surveys.

Source: (1) KPMG EU Flows Calculation, 2017-21;

Slovenia

Slovenia

C&C cigarette consumption and total consumption

2.9bn

Cigarettes consumed

+0.16bn on 2020

0.2bn

C&C cigarettes consumed

+0.07bn on 2020

7.6%

Of total consumption was C&C

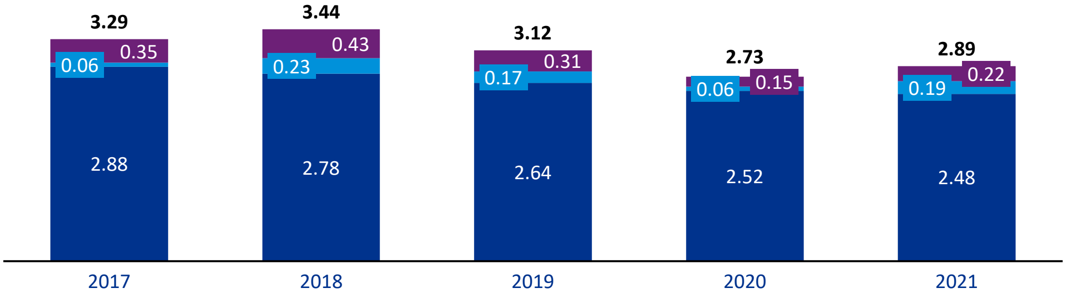
+2.28%pts on 2020

€34m

Total tax revenue lost from C&C

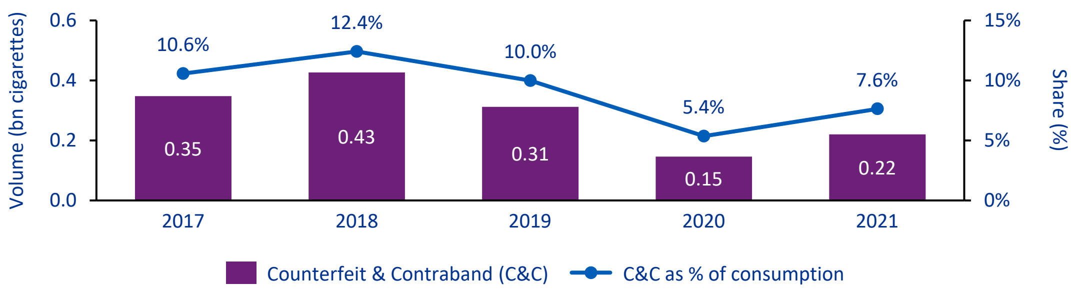
+€13m on 2020

Total consumption – 2017-2021 (bn cigarettes)(1)(2)

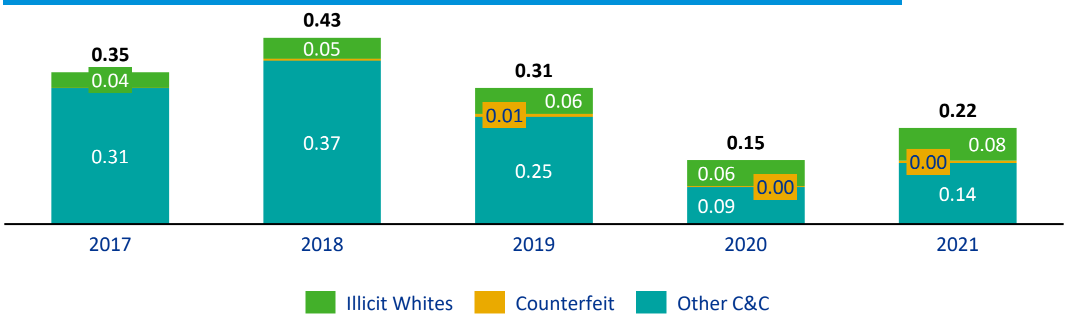


— C&C as a percentage of total cigarette consumption increased by 2.2ppt to 7.6%, driven by an increase in Other C&C and Illicit Whites

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2017-2021(1)(2)



C&C consumption by type – 2017-2021 (bn cigarettes)(1)(2)(a)



Note: (a) C&C breakdown chart only includes Counterfeit volumes related to brands of manufactures who participate in the empty pack/yellow bag surveys; (b) Total tax revenue lost represents estimated excise and VAT if C&C volumes had been consumed legally in the country of study ; (c) Due to rounding, segments highlighted in the charts may not add up to the total and year-on-year changes highlighted in the sidebar may differ from the charts

Source: (1) KPMG EU Flows Calculation, 2017-21; (2) In Market Sales data

Slovenia

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2017-2021[(1)(2)]

Total Slovenia Consumption						
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**	**2020-21 (%)**
Legal Domestic Sales (LDS)	3.48	3.48	3.37	3.21	3.19	(1%)
Outflows	(0.60)	(0.70)	(0.73)	(0.68)	(0.71)	4%
Legal Domestic Consumption (LDC)	2.88	2.78	2.64	2.52	2.48	(2%)
Non-Domestic Legal (ND(L))	0.06	0.23	0.17	0.06	0.19	201%
Counterfeit and Contraband (C&C)	0.35	0.43	0.31	0.15	0.22	51%
Total Non-Domestic	0.41	0.66	0.48	0.21	0.41	96%
Total Consumption	**3.29**	**3.44**	**3.12**	**2.73**	**2.89**	**6%**

- Total consumption increased by c.6% or 0.16bn cigarettes, principally driven by an increase in non-domestic inflows, but remained below the 2019 estimate
- Non-domestic inflows increased by c.96%. This was due to increased inflows from all major source markets, with the exception of Illicit Whites with no country-specific labelling which remained in line with 2020
- Outflows from Slovenia were principally to the higher-priced neighbouring markets of Italy and Austria, with declining flows to Italy offset by increasing flows to Austria

Total inflows by country of origin – 2017-2021[(1)(a)]

Inflows to Slovenia					
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**
IWs with no country-specific labelling	0.03	0.04	0.05	0.06	0.06
Romania	0.00	0.09	0.00	0.01	0.06
Croatia	0.04	0.07	0.06	0.02	0.06
Bosnia And Herzegovina	0.18	0.12	0.12	0.03	0.05
Serbia	0.04	0.04	0.04	0.01	0.03
Other	0.12	0.30	0.20	0.09	0.15
Total Inflows	**0.41**	**0.66**	**0.48**	**0.21**	**0.41**

Total outflows by destination – 2017-2021[(1)(2)]

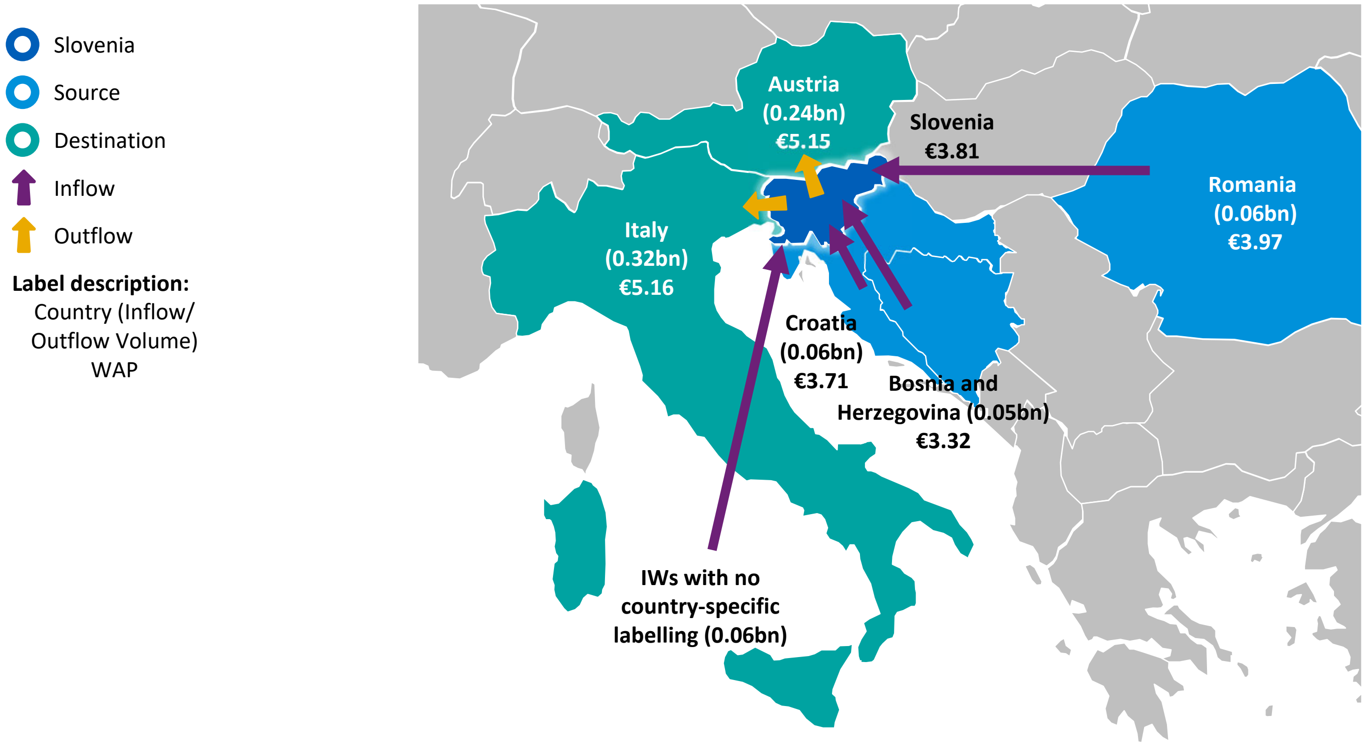
Outflows from Slovenia					
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**
Italy	(0.12)	(0.18)	(0.41)	(0.45)	(0.32)
Austria	(0.34)	(0.39)	(0.20)	(0.11)	(0.24)
Other	(0.14)	(0.13)	(0.12)	(0.12)	(0.14)
Total Outflows	**(0.60)**	**(0.70)**	**(0.73)**	**(0.68)**	**(0.71)**

Note: (a) The inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows
Source: (1) KPMG EU Flows Calculation, 2017-21; (2) In Market Sales data;

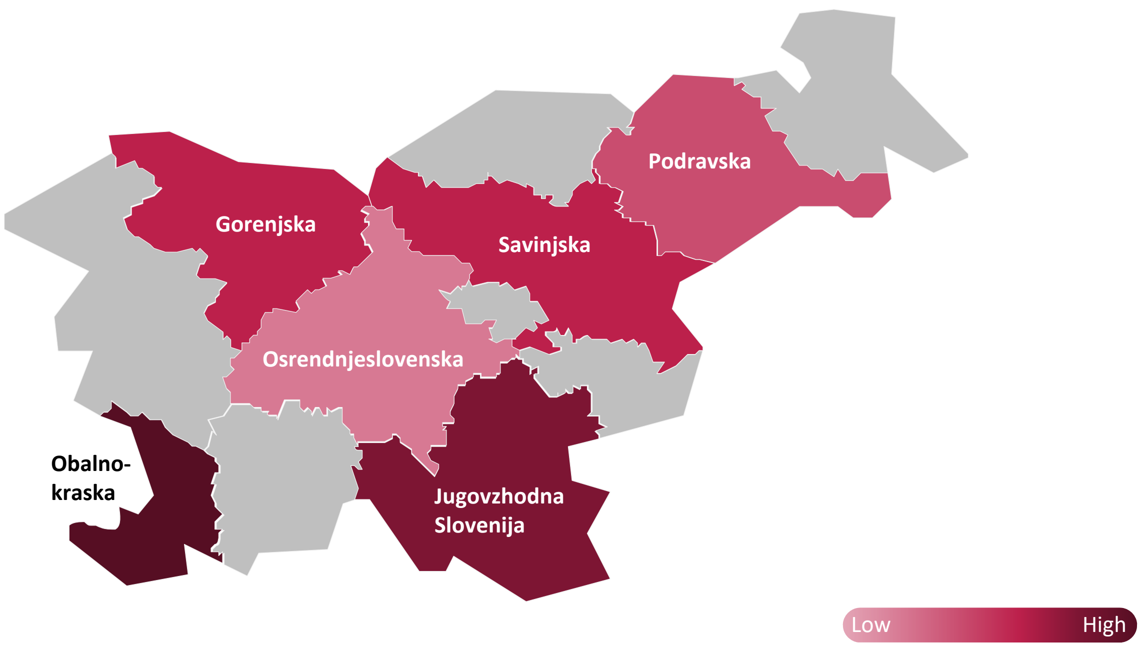
Slovenia

Key flows and C&C consumption patterns

Key inflows and outflows[1][a]



C&C % by region[1][b][c]



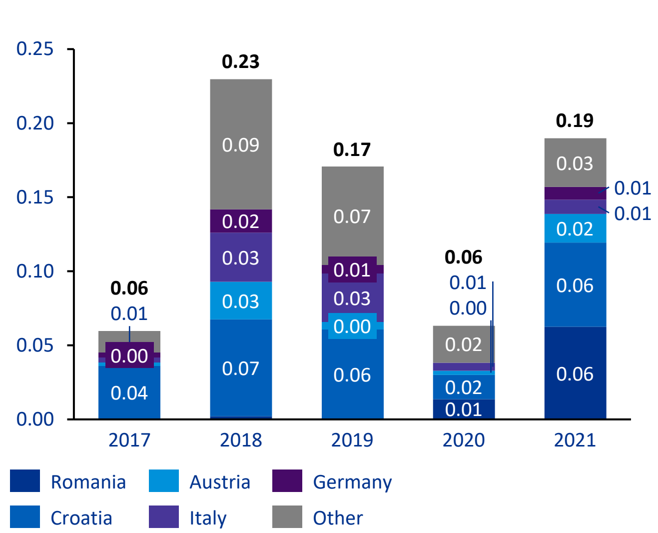
Note: (a) For countries with both inflows and outflows, only the larger of the two flows have been shown (b) C&C scale is relative to this market and is not comparable with other markets in the study, (c) Data not available for regions in grey

Source: (1) KPMG EU Flows Calculation 2021

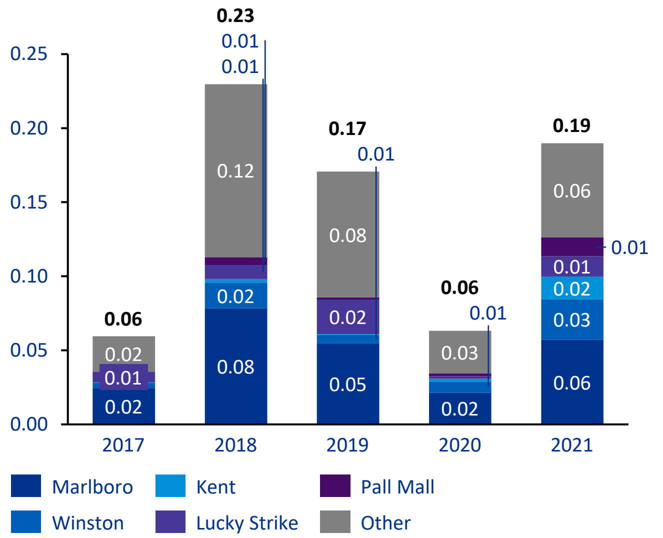
Slovenia

ND(L) and C&C flows

ND(L) by country of origin – 2017-2021 (bn cigarettes)(1)



ND(L) by brand – 2017-2021 (bn cigarettes)(1)

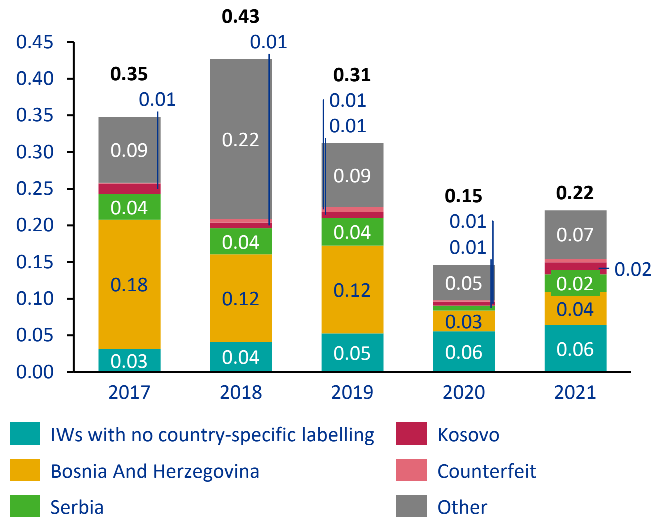


— Non-domestic legal flows increased by 0.13bn, mainly driven by increased inflows from Romania and Croatia, and returned to a similar level as in 2019

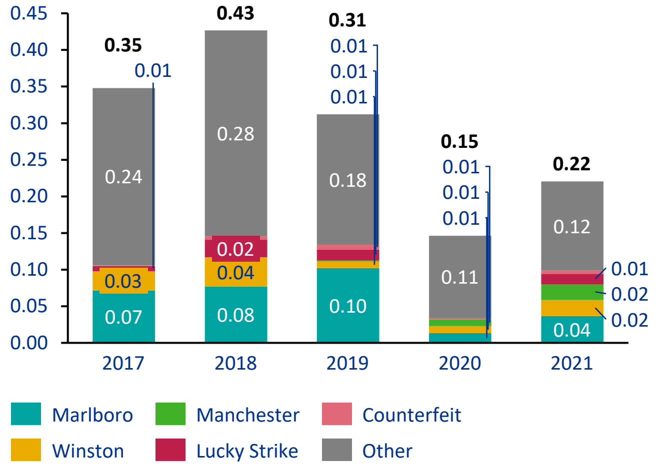
— Illicit Whites with no country-specific labelling remained the largest source of inflows, accounting for 29% of C&C in 2021 (38% in 2020)

— The region of Obalno-kraska had the highest proportion of C&C

C&C by country of origin – 2017-2021 (bn cigarettes)(1)(a)



C&C by brand – 2017-2021 (bn cigarettes)(1)(a)



Note: (a) Only includes Counterfeit volumes related to brands of manufactures who participate in the empty pack/yellow bag surveys.
Source: (1) KPMG EU Flows Calculation, 2017-21;

Spain

Spain

C&C cigarette consumption and total consumption

41.9bn

Cigarettes consumed

+1.33bn on 2020

1.4bn

C&C cigarettes consumed

-0.33bn on 2020

3.3%

Of total consumption was C&C

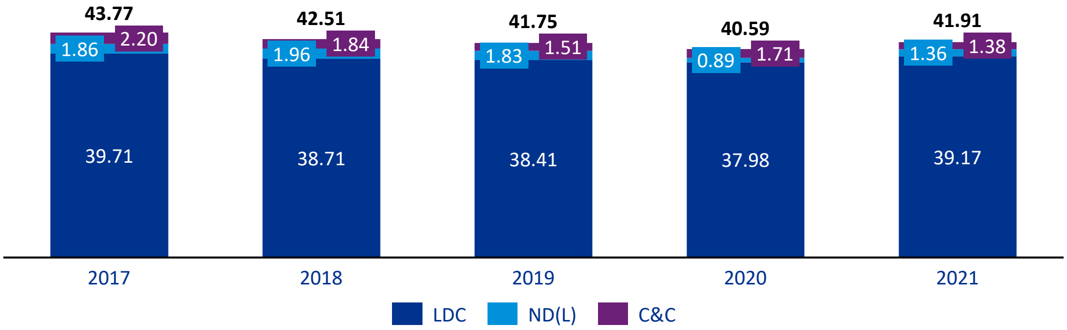
-0.93%pts on 2020

€248m

Total tax revenue lost from C&C

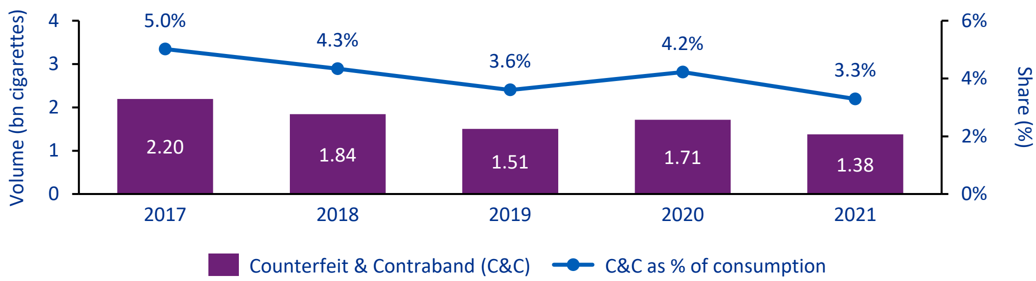
-€61m on 2020

Total consumption – 2017-2021 (bn cigarettes)[(1)(2)]

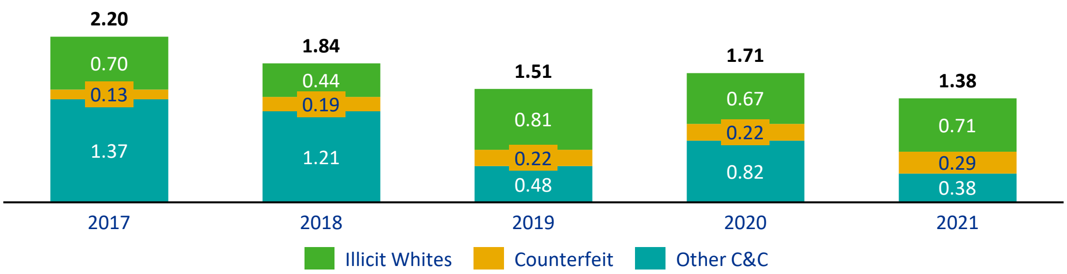


- C&C declined by 20% or 0.33bn cigarettes in 2021 and accounted for 3.3% of total cigarette consumption
- The C&C decline was driven by a reduction in other C&C inflows, partially offset by increases in both Counterfeit and Illicit Whites

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2017-2021[(1)(2)]



C&C consumption by type – 2017-2021 (bn cigarettes)[(1)(2)(a)]



Note: (a) C&C breakdown chart only includes Counterfeit volumes related to brands of manufactures who participate in the empty pack/yellow bag surveys; (b) Total tax revenue lost represents estimated excise and VAT if C&C volumes had been consumed legally in the country of study ; (c) Due to rounding, segments highlighted in the charts may not add up to the total and year-on-year changes highlighted in the sidebar may differ from the charts

Source: (1) KPMG EU Flows Calculation, 2017-21; (2) In Market Sales data

KPMG

Spain

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2017-2021[(1)(2)]

Total Spain Consumption						
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**	**2020-21 (%)**
Legal Domestic Sales (LDS)	44.75	44.62	45.02	41.40	42.12	2%
Outflows	(5.04)	(5.91)	(6.61)	(3.42)	(2.95)	(14%)
Legal Domestic Consumption (LDC)	39.71	38.71	38.41	37.98	39.17	3%
Non-Domestic Legal (ND(L))	1.86	1.96	1.83	0.89	1.36	53%
Counterfeit and Contraband (C&C)	2.20	1.84	1.51	1.71	1.38	(20%)
Total Non-Domestic	4.06	3.80	3.33	2.61	2.74	5%
Total Consumption	**43.77**	**42.51**	**41.75**	**40.59**	**41.91**	**3%**

- Total cigarette consumption increased by 3% in 2021, largely driven by increase in legal domestic consumption, and returned to a similar level as that seen in 2019
- Gibraltar remains the largest inflow source to Spain, with the declining trend witnessed since 2018 continuing
- Outflows decreased by 14% to 2.95bn in 2021, with neighbouring France accounting for the majority (87% of total outflows)

Total inflows by country of origin – 2017-2021[(1)(a)]

Inflows to Spain					
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**
Gibraltar	1.41	1.58	1.48	1.23	1.19
IWs with no country-specific labelling	0.65	0.50	0.59	0.64	0.65
Counterfeit	0.13	0.19	0.22	0.22	0.29
Other	1.87	1.53	1.04	0.51	0.61
Total Inflows	**4.06**	**3.80**	**3.33**	**2.61**	**2.74**

Total outflows by destination – 2017-2021[(1)(a)]

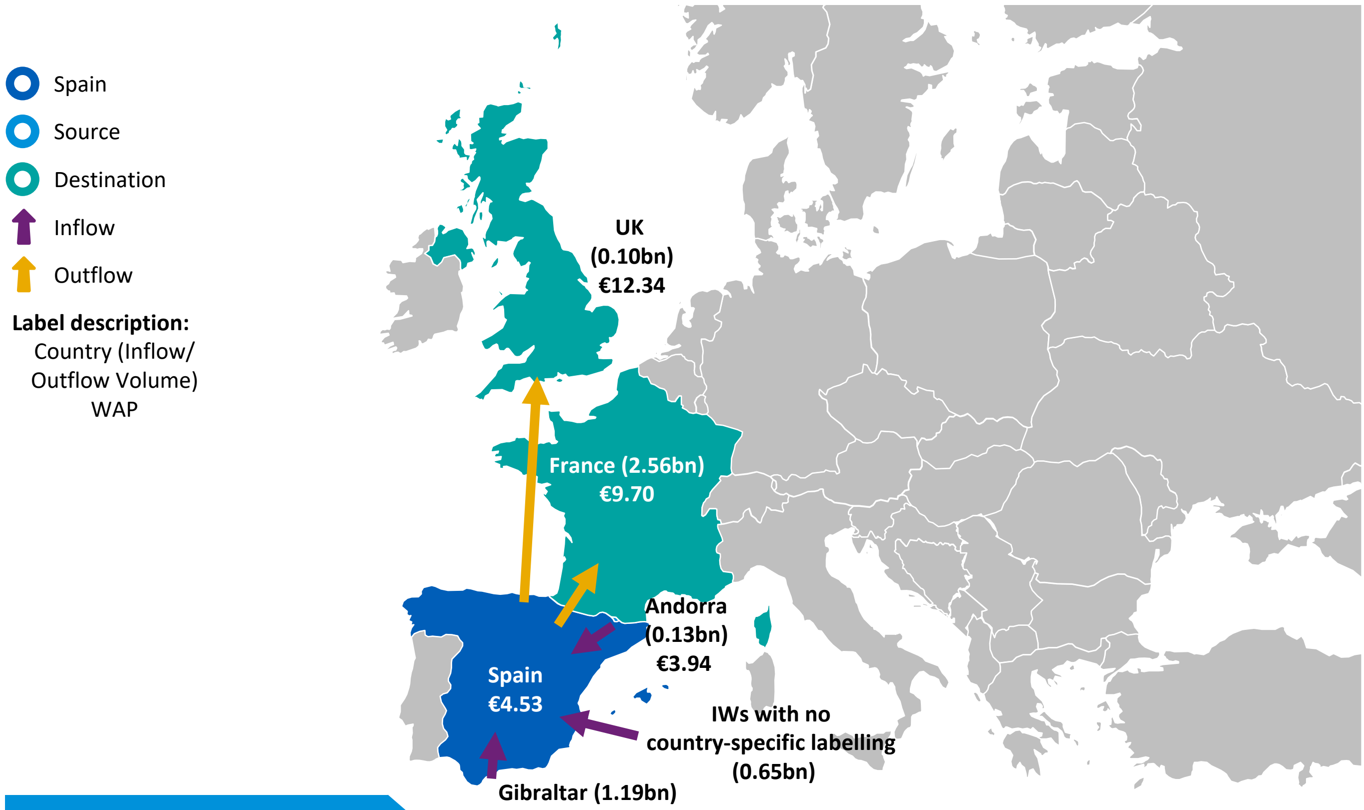
Outflows from Spain					
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**
France	(2.84)	(3.61)	(4.08)	(2.77)	(2.56)
Other	(2.19)	(2.31)	(2.52)	(0.65)	(0.39)
Total Outflows	**(5.04)**	**(5.91)**	**(6.61)**	**(3.42)**	**(2.95)**

Note: (a) The inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows
Source: (1) KPMG EU Flows Calculation, 2017-21; (2) In Market Sales data;

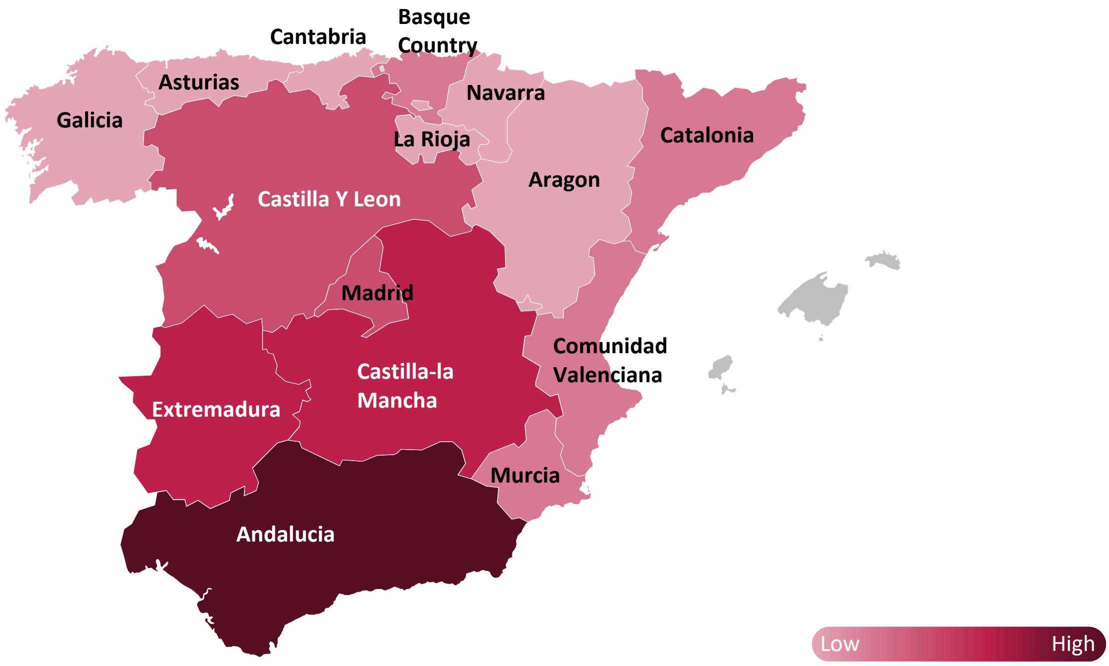
Spain

Key flows and C&C consumption patterns

Key inflows and outflows[(1)(a)]



C&C % by region[(1)(b)(c)]



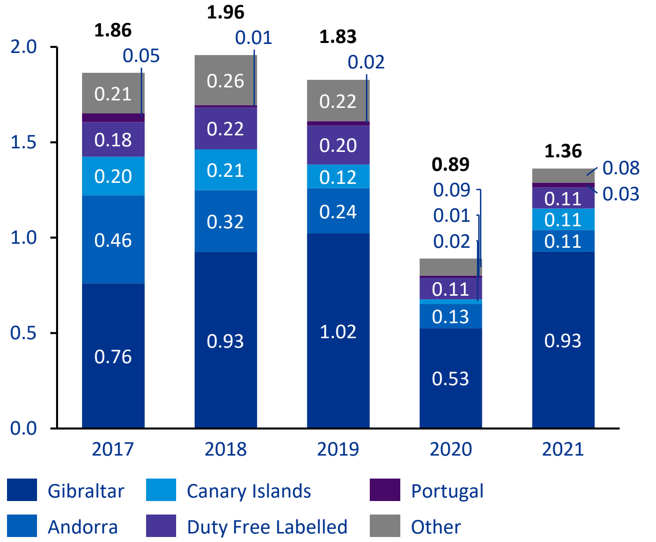
Note: (a) For countries with both inflows and outflows, only the larger of the two flows have been shown (b) C&C scale is relative to this market and is not comparable with other markets in the study, (c) Data not available for regions in grey

Source: (1) KPMG EU Flows Calculation 2021

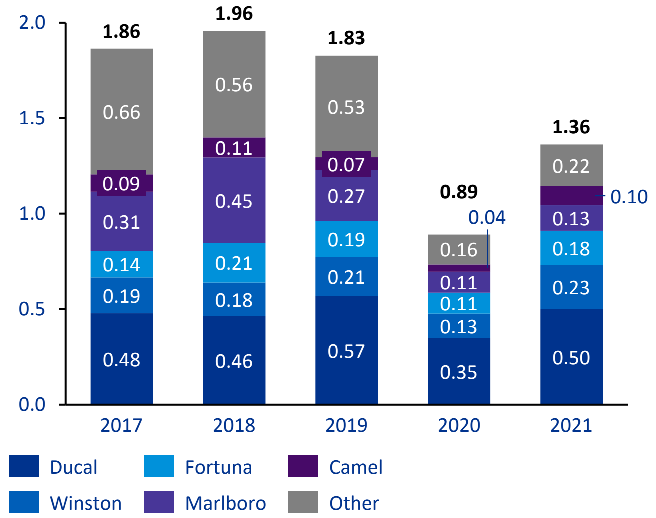
Spain

ND(L) and C&C flows

ND(L) by country of origin – 2017-2021 (bn cigarettes)[1]

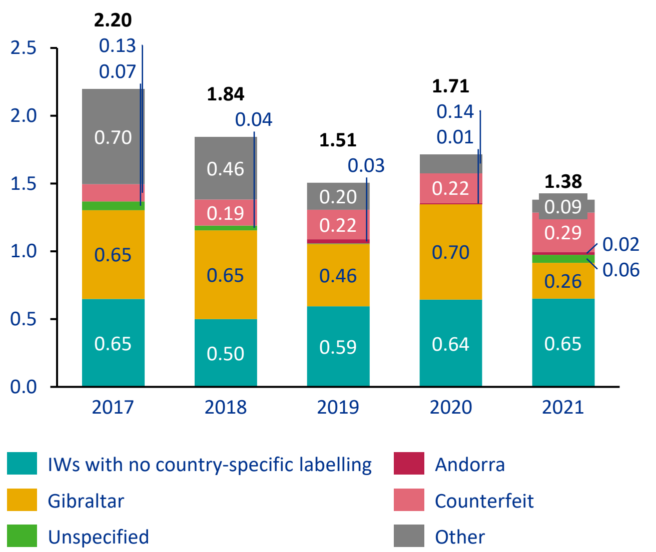


ND(L) by brand – 2017-2021 (bn cigarettes)[1]

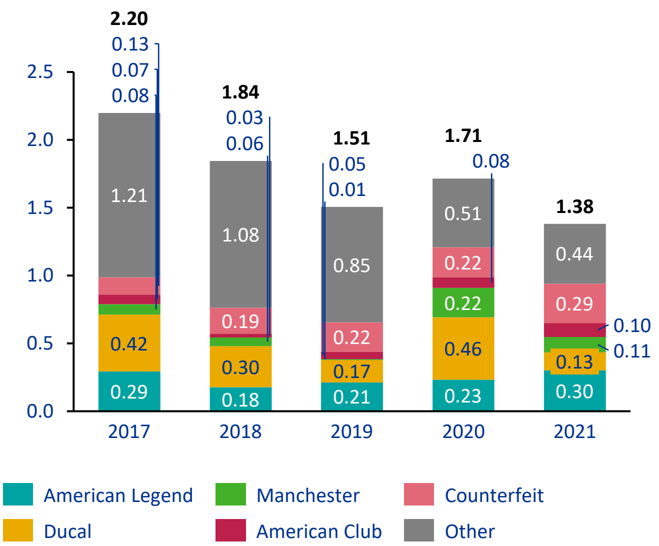


- Legal inflows (ND(L)) increased by 53% or 0.47bn, primarily driven by increased inflows from Gibraltar which returned to a similar level to that seen prior to 2020
- ND(L) inflows from the Canary Islands, a popular tourist destination, also increased in 2021, again returning to 2019 levels
- Total C&C declined to the lowest level in the reporting period, principally driven by 63% decline in Illicit flows from Gibraltar
- The highest level of C&C incidence was observed in Andalucia, in the South of the country

C&C by country of origin – 2017-2021 (bn cigarettes)[1](a)



C&C by brand – 2017-2021 (bn cigarettes)[1](a)



Note: (a) Only includes Counterfeit volumes related to brands of manufactures who participate in the empty pack/yellow bag surveys.

Source: (1) KPMG EU Flows Calculation, 2017-21;

Sweden

Sweden

C&C cigarette consumption and total consumption

5.1bn

Cigarettes consumed

-0.38bn on 2020

0.4bn

C&C cigarettes consumed

-0.07bn on 2020

7.3%

Of total consumption was C&C

-0.70%pts on 2020

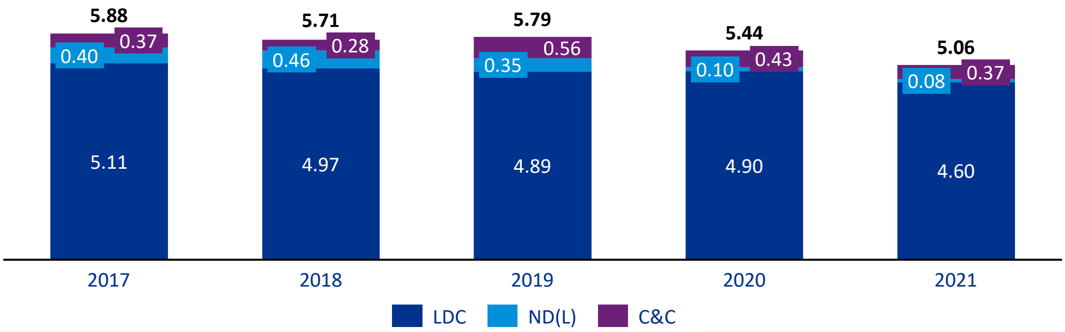
€80m

(SEK823m)[3]

Total tax revenue lost from C&C

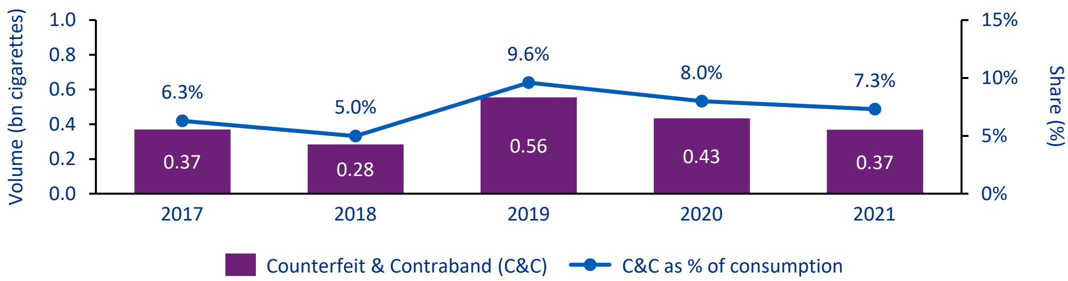
-€12m on 2020

Total consumption – 2017-2021 (bn cigarettes)[(1)(2)]

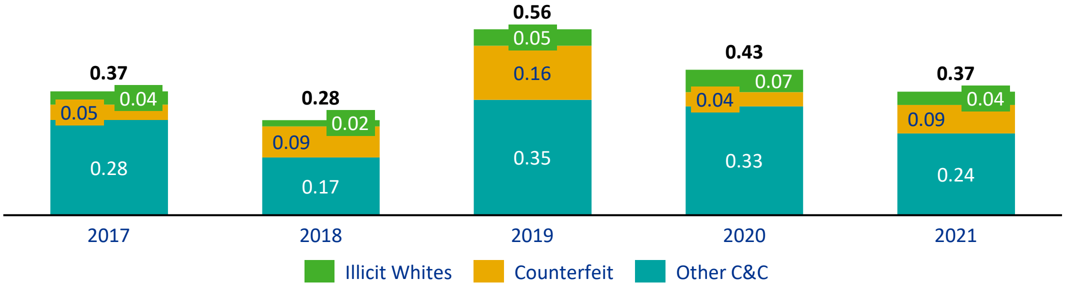


- C&C declined in 2021 to 7.3% of total cigarette consumption
- The C&C decline was driven by a reduction in Other C&C and Illicit Whites inflows, partly offset by an increase in Counterfeit

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2017-2021[(1)(2)]



C&C consumption by type – 2017-2021 (bn cigarettes)[(1)(2)(a)]



Note: (a) C&C breakdown chart only includes Counterfeit volumes related to brands of manufactures who participate in the empty pack/yellow bag surveys; (b) Total tax revenue lost represents estimated excise and VAT if C&C volumes had been consumed legally in the country of study ; (c) Due to rounding, segments highlighted in the charts may not add up to the total and year-on-year changes highlighted in the sidebar may differ from the charts

Source: (1) KPMG EU Flows Calculation, 2017-21; (2) In Market Sales data; (3) EUR 1 = SEK 10.29, InforEuro, European Commission, December 2021

Sweden

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2017-2021(1)(2)

Total Sweden Consumption						
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**	**2020-21 (%)**
Legal Domestic Sales (LDS)	5.58	5.31	5.18	5.01	4.79	(4%)
Outflows	(0.47)	(0.34)	(0.29)	(0.11)	(0.18)	70%
Legal Domestic Consumption (LDC)	5.11	4.97	4.89	4.90	4.60	(6%)
Non-Domestic Legal (ND(L))	0.40	0.46	0.35	0.10	0.08	(18%)
Counterfeit and Contraband (C&C)	0.37	0.28	0.56	0.43	0.37	(15%)
Total Non-Domestic	0.77	0.74	0.90	0.54	0.45	(16%)
Total Consumption	**5.88**	**5.71**	**5.79**	**5.44**	**5.06**	**(7%)**

- Total cigarette consumption declined in 2021, driven by a reduction in both legal-domestic consumption and non-domestic inflows
- The decline in inflows was due to a decline in flows from Duty Free Labelled products and flows from Belarus and smaller volume markets within 'Other'. This decline was partly offset by increases in Counterfeit and flows from Latvia
- Total outflows increased by 70%, principally driven by increased outflows to neighbouring Norway and Denmark, against a backdrop of increased cross-border travel and shopping due to the relaxation of travel restrictions

Total inflows by country of origin – 2017-2021(1)(a)

Inflows to Sweden					
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**
Counterfeit	0.05	0.09	0.16	0.04	0.09
Duty Free Labelled	0.27	0.23	0.26	0.17	0.07
Poland	0.02	0.05	0.10	0.07	0.07
Latvia	0.02	0.01	0.04	0.01	0.05
Belarus	0.01	0.01	0.02	0.06	0.03
Other	0.41	0.35	0.32	0.18	0.15
Total Inflows	**0.77**	**0.74**	**0.90**	**0.54**	**0.45**

Total outflows by destination – 2017-2021(1)(a)

Outflows from Sweden					
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**
Norway	(0.31)	(0.21)	(0.16)	(0.02)	(0.09)
Denmark	(0.07)	(0.03)	(0.08)	(0.03)	(0.07)
Other	(0.09)	(0.10)	(0.04)	(0.06)	(0.02)
Total Outflows	**(0.47)**	**(0.34)**	**(0.29)**	**(0.11)**	**(0.18)**

Note: (a) The inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows
Source: (1) KPMG EU Flows Calculation, 2017-21; (2) In Market Sales data;

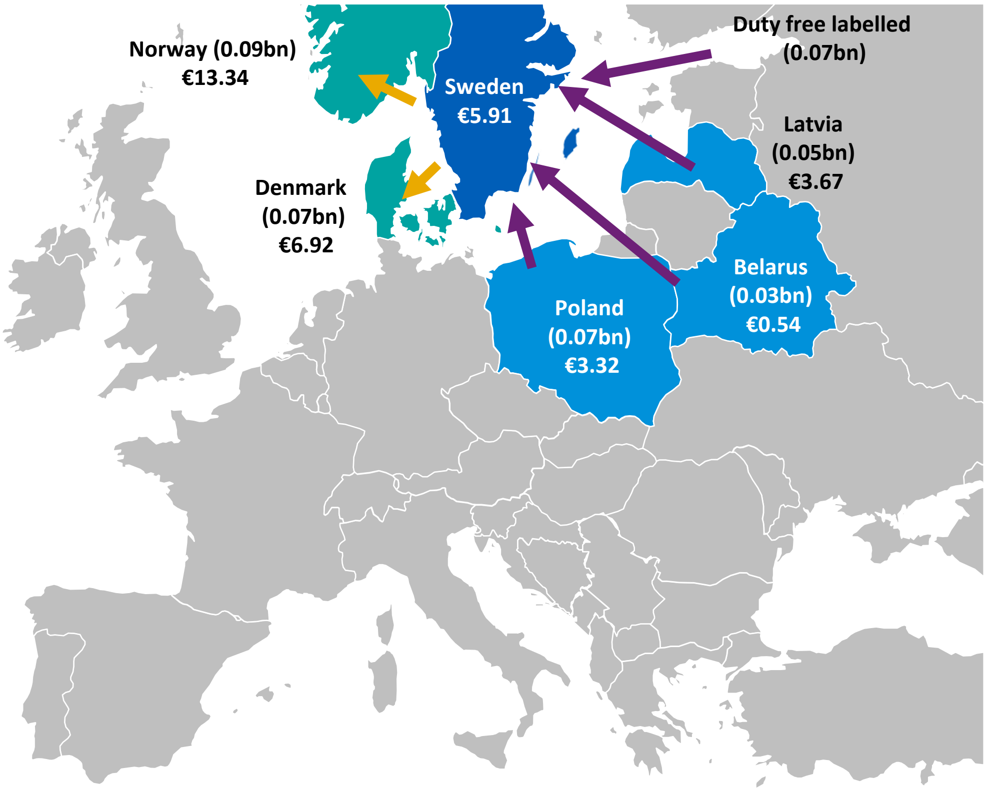
Sweden

Key flows and C&C consumption patterns

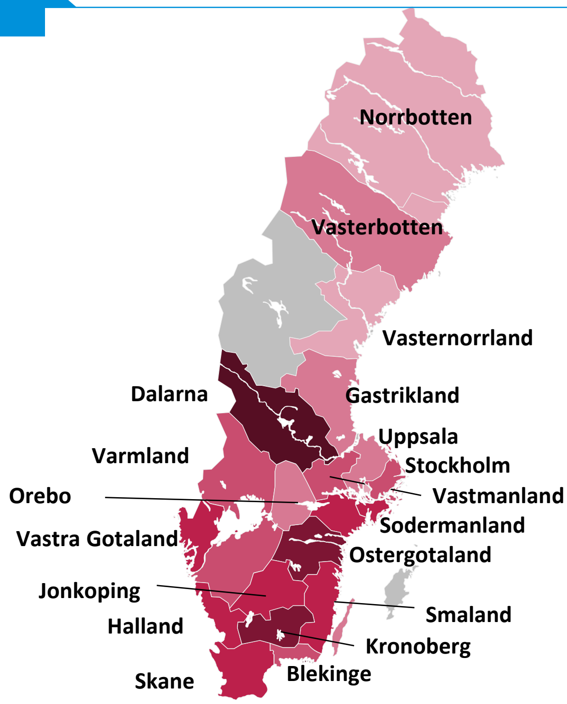
Key inflows and outflows[1](a)

Sweden
Source
Destination
Inflow
Outflow

Label description:
Country (Inflow/
Outflow Volume)
WAP



C&C % by region[1](b)(c)



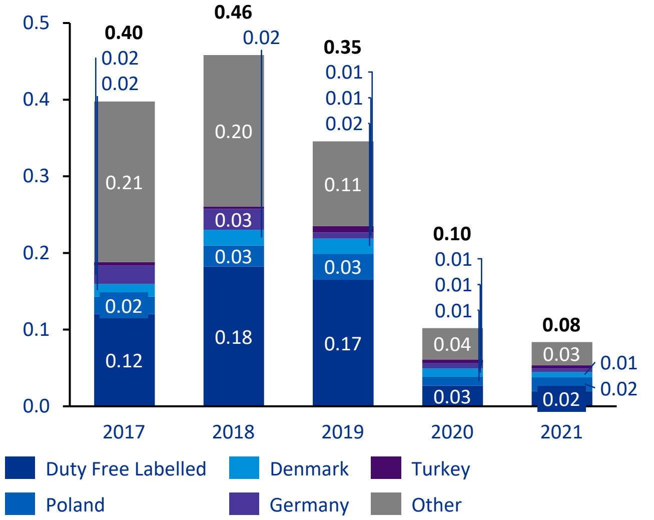
Note: (a) For countries with both inflows and outflows, only the larger of the two flows have been shown (b) C&C scale is relative to this market and is not comparable with other markets in the study, (c) Data not available for regions in grey

Source: (1) KPMG EU Flows Calculation 2021

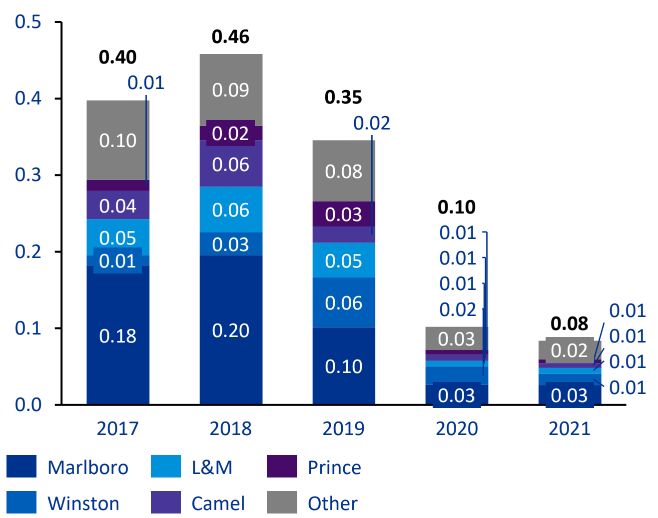
Sweden

ND(L) and C&C flows

ND(L) by country of origin – 2017-2021 (bn cigarettes)[1]

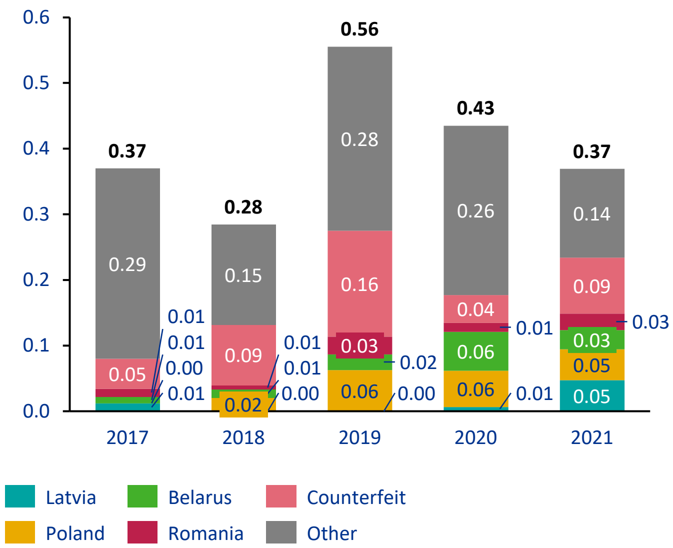


ND(L) by brand – 2017-2021 (bn cigarettes)[1]

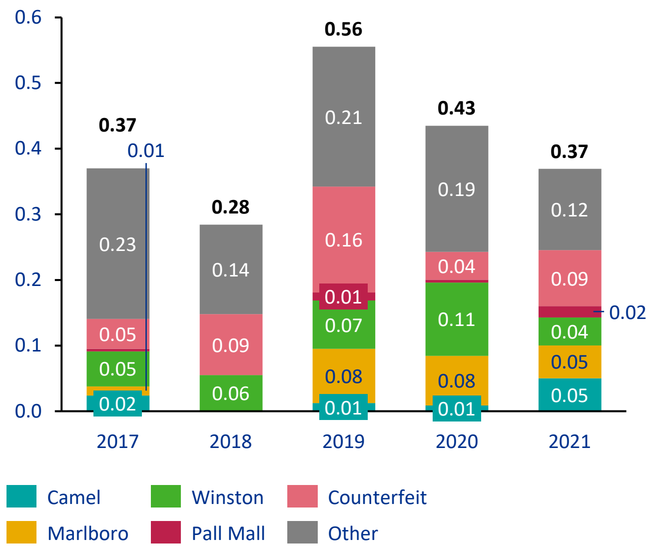


- Non-domestic legal flows remained broadly in line with 2020 levels
- The decline in C&C was primarily driven by reduced flows from smaller volume markets within the 'Other' category, partly offset by increased Counterfeit flows and illicit flows from Latvia

C&C by country of origin – 2017-2021 (bn cigarettes)[1][a]



C&C by brand – 2017-2021 (bn cigarettes)[1][a]



Note: (a) Only includes Counterfeit volumes related to brands of manufactures who participate in the empty pack/yellow bag surveys.

Source: (1) KPMG EU Flows Calculation, 2017-21;

Switzerland

Switzerland

9.7bn

Cigarettes consumed

+0.01bn on 2020

0.3bn

C&C cigarettes consumed

+0.09bn on 2020

3.0%

Of total consumption was C&C

+0.94%pts on 2020

€71m

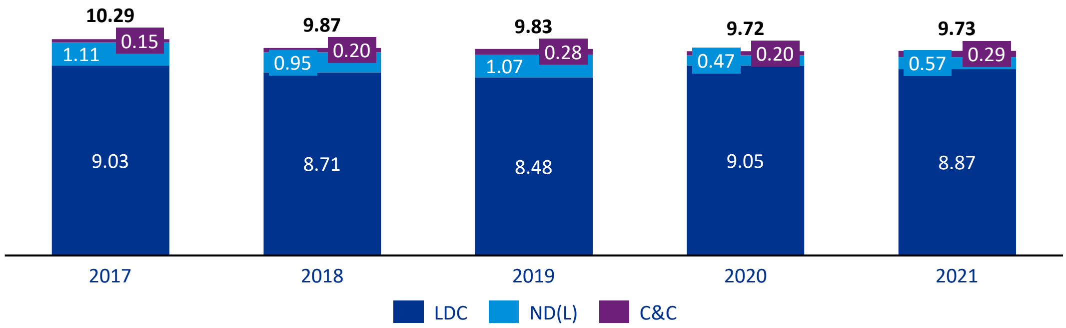
(CHf74m)[3]

Total tax revenue lost from C&C

+€25m on 2020

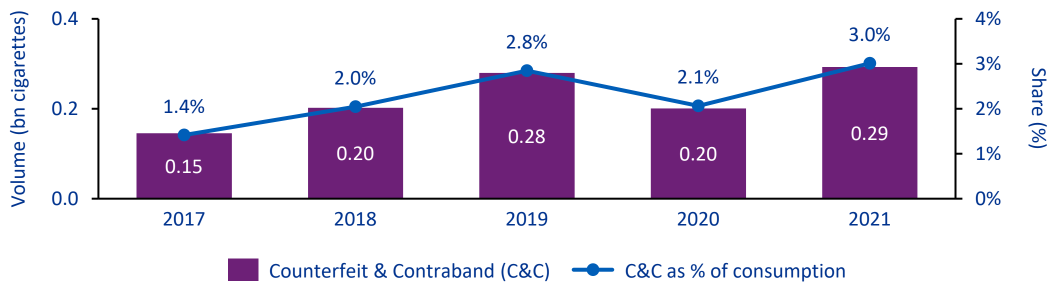
C&C cigarette consumption and total consumption

Total consumption – 2017-2021 (bn cigarettes)[(1)(2)]

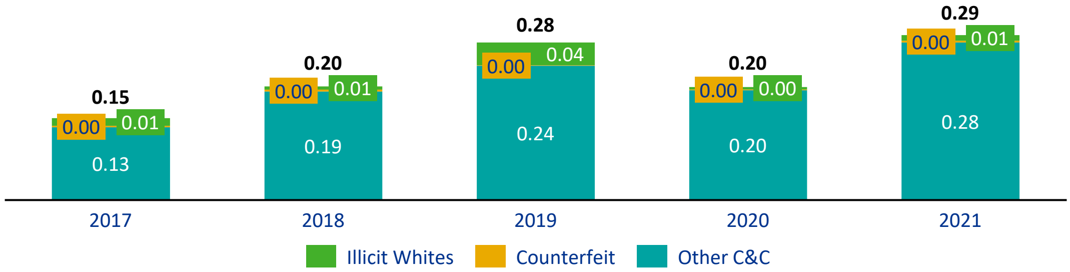


- Counterfeit and contraband (C&C) increased by 0.09bn to 3.0% of total cigarette consumption, the highest in the reporting period, albeit still lower than the majority of countries in this study
- This C&C increase was largely driven by Other C&C

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2017-2021[(1)(2)]



C&C consumption by type – 2017-2021 (bn cigarettes)[(1)(2)(a)]



Note: (a) C&C breakdown chart only includes Counterfeit volumes related to brands of manufactures who participate in the empty pack/yellow bag surveys; (b) Total tax revenue lost represents estimated excise and VAT if C&C volumes had been consumed legally in the country of study ; (c) Due to rounding, segments highlighted in the charts may not add up to the total and year-on-year changes highlighted in the sidebar may differ from the charts

Source: (1) KPMG EU Flows Calculation, 2017-21; (2) In Market Sales data; (3) EUR 1 = CHF 1.044, InforEuro, European Commission, December 2021

Switzerland

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2017-2021[1][2]

Total Switzerland Consumption						
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**	**2020-21 (%)**
Legal Domestic Sales (LDS)	9.33	9.07	8.77	9.19	8.94	(3%)
Outflows	(0.30)	(0.35)	(0.29)	(0.15)	(0.07)	(49%)
Legal Domestic Consumption (LDC)	9.03	8.71	8.48	9.05	8.87	(2%)
Non-Domestic Legal (ND(L))	1.11	0.95	1.07	0.47	0.57	21%
Counterfeit and Contraband (C&C)	0.15	0.20	0.28	0.20	0.29	46%
Total Non-Domestic	1.26	1.16	1.35	0.68	0.87	28%
Total Consumption	**10.29**	**9.87**	**9.83**	**9.72**	**9.73**	**0%**

- Total consumption was stable, with declining legal domestic consumption offset by increased non-domestic flows
- With the exception of Germany, inflows increased from all major source markets whilst Duty Free remained the largest source of non-domestic inflows. As Switzerland is not in the EU, travellers can purchase Duty Free cigarettes while traveling to other EU and non-EU countries by air
- Flows from Kosovo increased to the highest level seen in the reporting period, and may be linked to the large Kosovar population living in Switzerland[3]
- Outflows declined by c.49%, with lower outflows to Germany, France and smaller destinations within 'Other'

Total inflows by country of origin – 2017-2021[1][a]

Inflows to Switzerland					
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**
Duty Free Labelled	0.51	0.38	0.34	0.14	0.22
Germany	0.21	0.19	0.21	0.16	0.10
Kosovo	0.02	0.02	0.05	0.01	0.07
Italy	0.14	0.10	0.06	0.03	0.07
France	0.07	0.07	0.29	0.06	0.07
Other	0.31	0.40	0.40	0.28	0.33
Total Inflows	**1.26**	**1.16**	**1.35**	**0.68**	**0.87**

Total outflows by destination – 2017-2021[1][a]

Outflows from Switzerland					
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**
Italy	(0.01)	(0.08)	(0.03)	(0.01)	(0.02)
Germany	(0.06)	(0.06)	(0.07)	(0.04)	(0.02)
France	(0.07)	(0.08)	(0.09)	(0.05)	(0.02)
Denmark	(0.00)	(0.00)	(0.01)	0.00	(0.01)
Other	(0.15)	(0.14)	(0.10)	(0.05)	(0.02)
Total Outflows	**(0.30)**	**(0.35)**	**(0.29)**	**(0.15)**	**(0.07)**

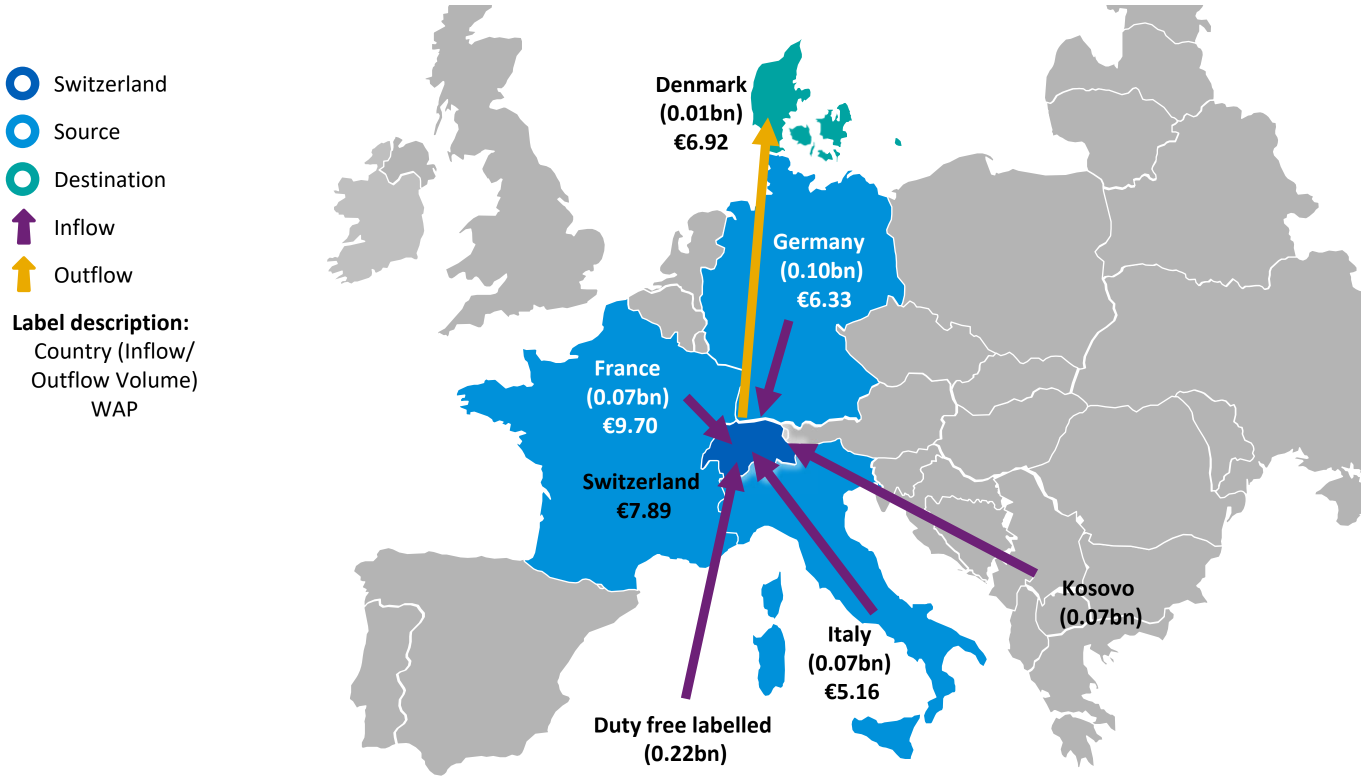
Note: (a) The inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows

Source: (1) KPMG EU Flows Calculation, 2017-21; (2) In Market Sales data;(3) https://www.aargauerzeitung.ch/schweiz/1-5-millionen-verliessen-die-heimat-wie-sich-der-kosovo-krieg-auf-die-schweiz-auswirkte-die-sechs-wichtigsten-fragen-ld.1352522

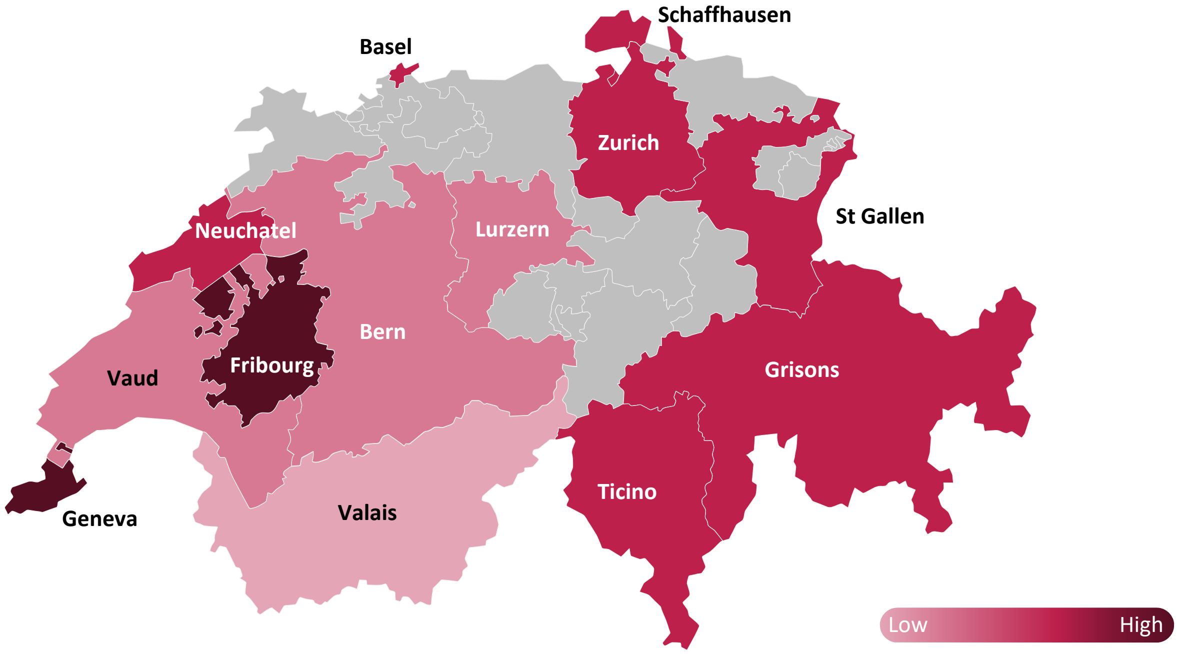
Switzerland

Key flows and C&C consumption patterns

Key inflows and outflows[1](a)



C&C % by region[1](b)(c)



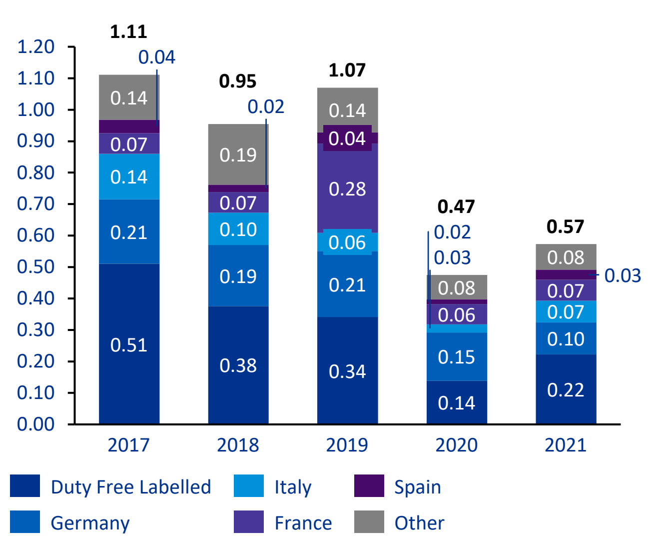
Note: (a) For countries with both inflows and outflows, only the larger of the two flows have been shown (b) C&C scale is relative to this market and is not comparable with other markets in the study, (c) Data not available for regions in grey

Source: (1) KPMG EU Flows Calculation 2021

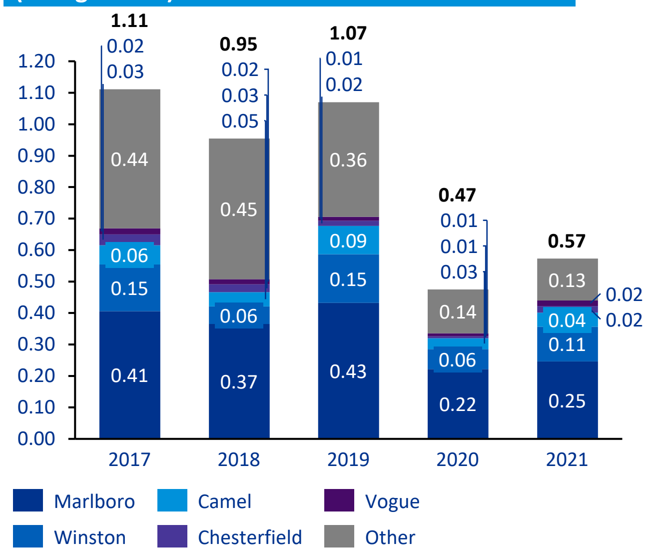
Switzerland

ND(L) and C&C flows

ND(L) by country of origin – 2017-2021 (bn cigarettes)[1]



ND(L) by brand – 2017-2021 (bn cigarettes)[1]



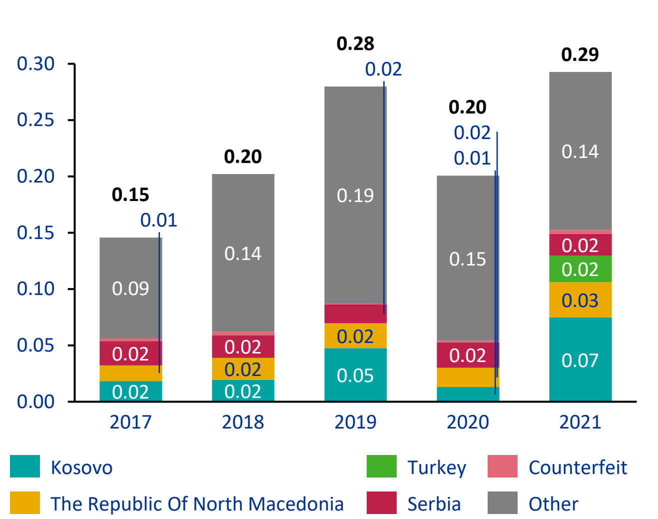
— Legal inflows (ND(L)) increased in 2021, primarily driven by increased flows from Duty Free Labelled and Italy. These were partly offset by a decline in flows from Germany

— There is a large incidence of cross-border travel by tourists and frontier workers from neighbouring France and Germany. Therefore, inflows from these countries have been considered to be predominately legal (ND(L))[2]

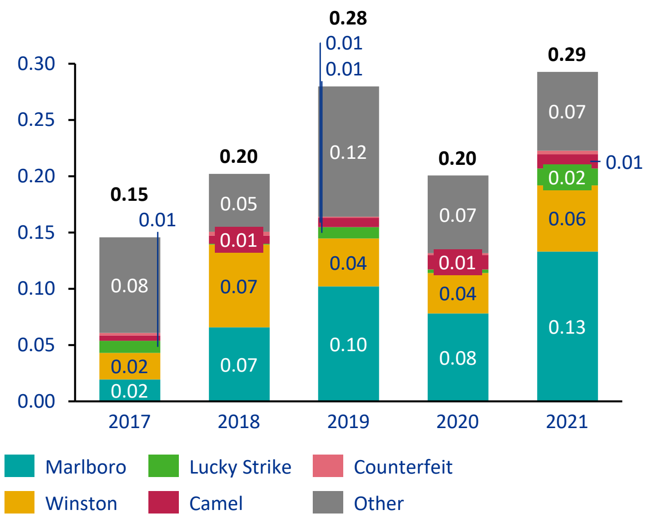
— C&C flows returned to 2019 levels, due to increased flows from Kosovo, Turkey and North Macedonia

— Fribourg and Geneva showed the highest regional C&C incidence

C&C by country of origin – 2017-2021 (bn cigarettes)[1](a)



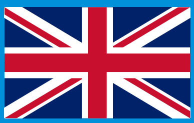
C&C by brand – 2017-2021 (bn cigarettes)[1](a)



Note: (a) Only includes Counterfeit volumes related to brands of manufactures who participate in the empty pack/yellow bag surveys.

Source: (1) KPMG EU Flows Calculation, 2017-21; (2) Switzerland Federal Statistics Bureau, Foreign border workers by canton of work, country of residence and sex


KPMG
UK



UK

30.2bn

Cigarettes consumed

-0.42bn on 2020

5.5bn

C&C cigarettes consumed

+0.23bn on 2020

18.1%

Of total consumption was C&C

0.98%pts on 2020

€2,747m

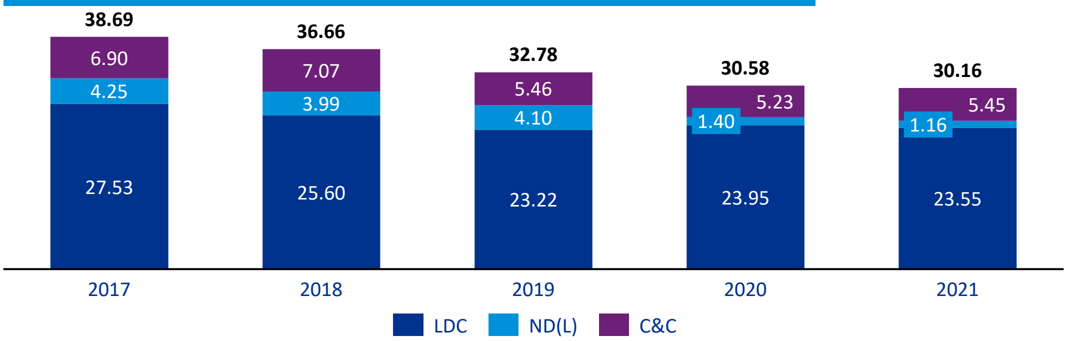
(£2,323m)[3]

Total tax revenue lost from C&C

+€515m on 2020

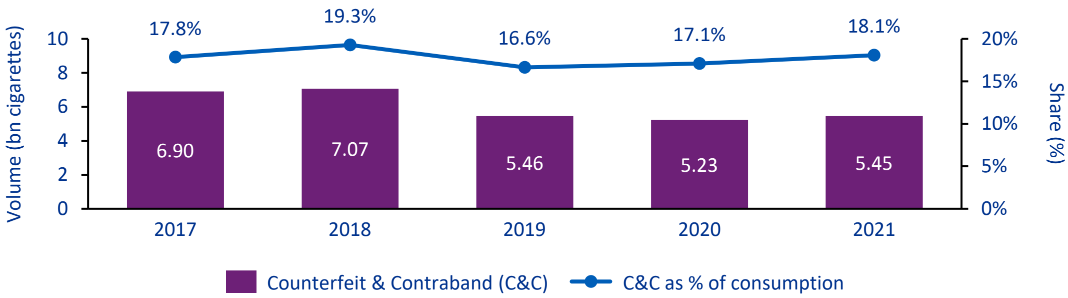
C&C cigarette consumption and total consumption

Total consumption – 2017-2021 (bn cigarettes)[(1)(2)]

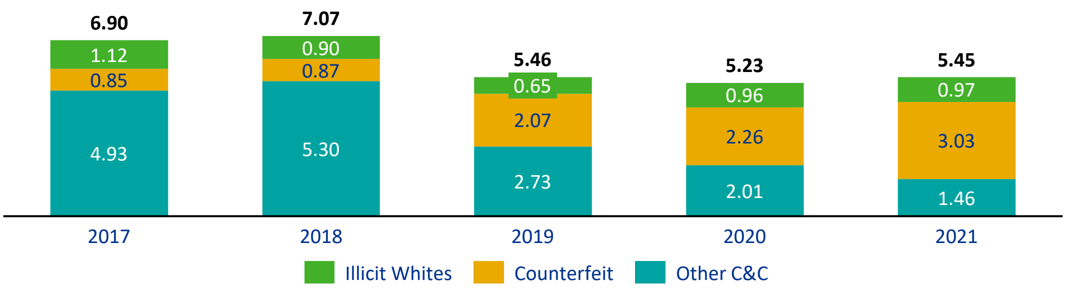


- The decline in total cigarette consumption slowed in 2021, compared with rates observed between 2017 and 2020
- The C&C share of total consumption increased by 1ppt to 18.1%
  - This C&C increase was due to a c.0.76bn increase in Counterfeit flows, partly offset by a c.0.55bn decline in Other C&C
- The Counterfeit flow of 3.03bn in 2021 is the highest value recorded in the UK since this study began

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2017-2021[(1)(2)]



C&C consumption by type – 2017-2021 (bn cigarettes)[(1)(2)(b)]



Note: (a) Total tax revenue lost represents estimated excise and VAT if C&C volumes had been consumed legally in the country of study (b) Only includes Counterfeit volumes related to brands of manufactures who participate in the empty pack/yellow bag surveys; (c) Due to rounding, segments highlighted in the charts may not add up to the total and year-on-year changes highlighted in the sidebar may differ from the charts

Source: (1) KPMG EU Flows Calculation, 2017-21; (2) In Market Sales data; (3) EUR 1 = GBP 0.846, InforEuro, European Commission, December 2021

KPMG

UK

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2017-2021[(1)(2)]

Total UK Consumption						
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**	**2020-21 (%)**
Legal Domestic Sales (LDS)	27.92	25.99	23.54	24.13	23.68	(2%)
Outflows	(0.39)	(0.39)	(0.32)	(0.18)	(0.13)	(30%)
Legal Domestic Consumption (LDC)	27.53	25.60	23.22	23.95	23.55	(2%)
Non-Domestic Legal (ND(L))	4.25	3.99	4.10	1.40	1.16	(17%)
Counterfeit and Contraband (C&C)	6.90	7.07	5.46	5.23	5.45	4%
Total Non-Domestic	11.16	11.06	9.56	6.62	6.61	(0%)
Total Consumption	**38.69**	**36.66**	**32.78**	**30.58**	**30.16**	**(1%)**

— Total consumption declined by 1% in 2021, driven by a decline in legal domestic sales

— Counterfeit inflows continued to increase in 2021, and have been the largest source of non-domestic cigarettes since 2019

— Inflows from Poland, Belarus and Duty Free Labelled declined

— Outflows from the UK continued to decline, reaching 0.13bn in 2021, the lowest level recorded since this study began

Total inflows by country of origin – 2017-2021[(1)(a)]

Inflows to UK					
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**
Counterfeit	0.85	0.87	2.07	2.26	3.03
Poland	1.39	1.51	1.14	1.03	0.72
Belarus	0.80	0.78	0.20	0.66	0.49
Duty Free Labelled	1.62	1.28	1.37	0.65	0.47
IWs with no country-specific labelling	0.31	0.18	0.33	0.25	0.39
Other	6.20	6.44	4.44	1.77	1.50
Total Inflows	**11.16**	**11.06**	**9.56**	**6.62**	**6.61**

Total outflows by destination – 2017-2021[(1)(a)]

Outflows from UK					
Billion cigarettes	**2017**	**2018**	**2019**	**2020**	**2021**
France	(0.04)	(0.04)	(0.02)	(0.04)	(0.05)
Italy	(0.00)	(0.02)	(0.02)	(0.01)	(0.02)
Ireland	(0.12)	(0.06)	(0.12)	(0.02)	(0.02)
Germany	(0.03)	(0.03)	(0.02)	(0.02)	(0.01)
Other	(0.20)	(0.24)	(0.15)	(0.09)	(0.02)
Total Outflows	**(0.39)**	**(0.39)**	**(0.32)**	**(0.18)**	**(0.13)**

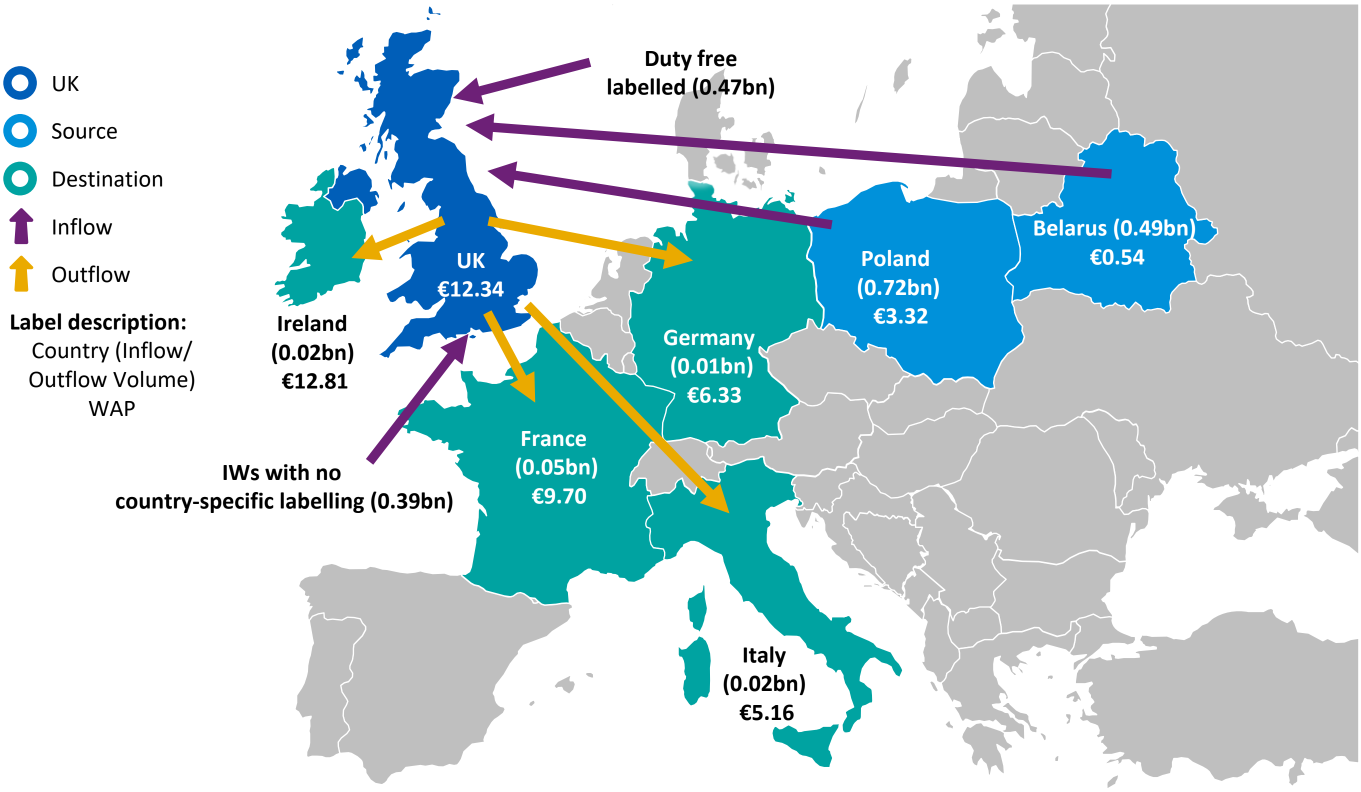
Note: (a) The inflow and outflow tables only show the top five sources/destinations or countries that make up 80% of total flows

Source: (1) KPMG EU Flows Calculation, 2017-21; (2) In Market Sales data;

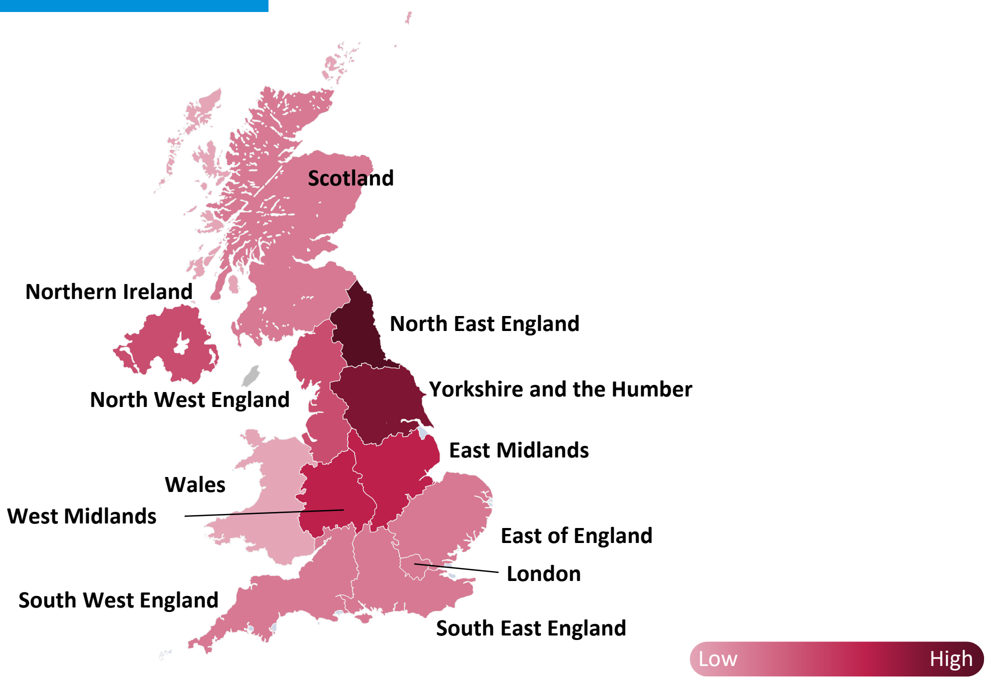
UK

Key flows and C&C consumption patterns

Key inflows and outflows[1][a]



C&C % by region[1][b][c]



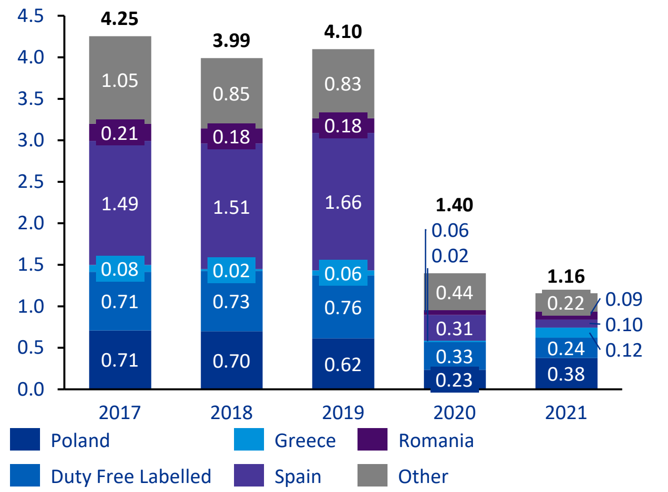
Note: (a) For countries with both inflows and outflows, only the larger of the two flows have been shown (b) C&C scale is relative to this market and is not comparable with other markets in the study, (c) Data not available for regions in grey

Source: (1) KPMG EU Flows Calculation 2021

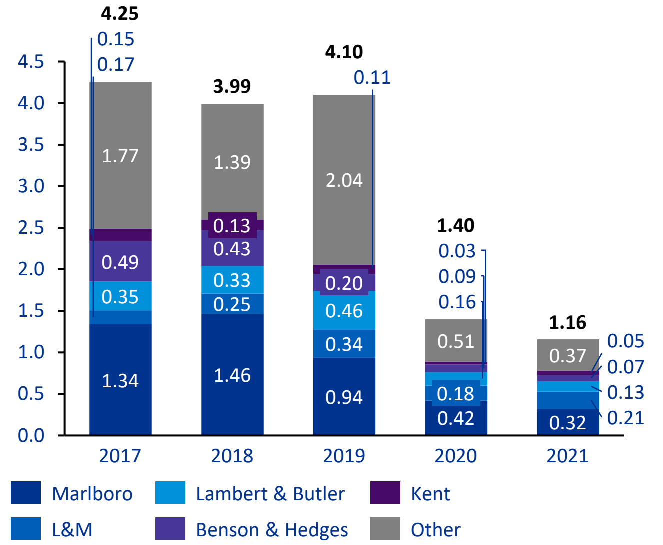
UK

ND(L) and C&C flows

ND(L) by country of origin – 2017-2021 (bn cigarettes)[1]



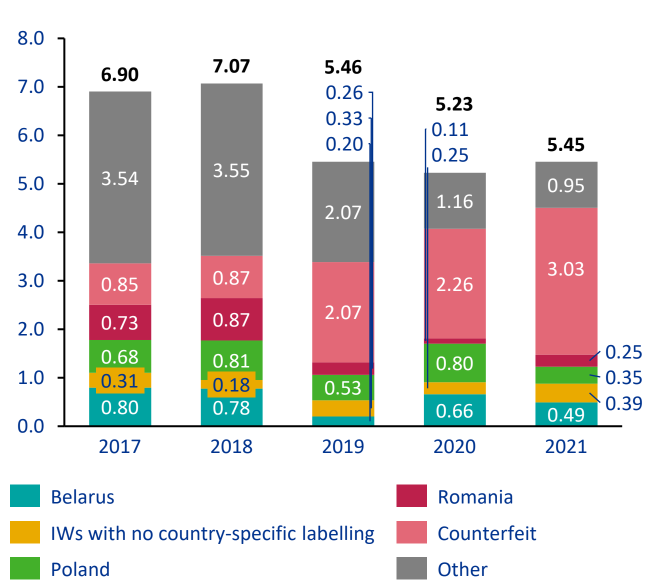
ND(L) by brand – 2017-2021 (bn cigarettes)[1]



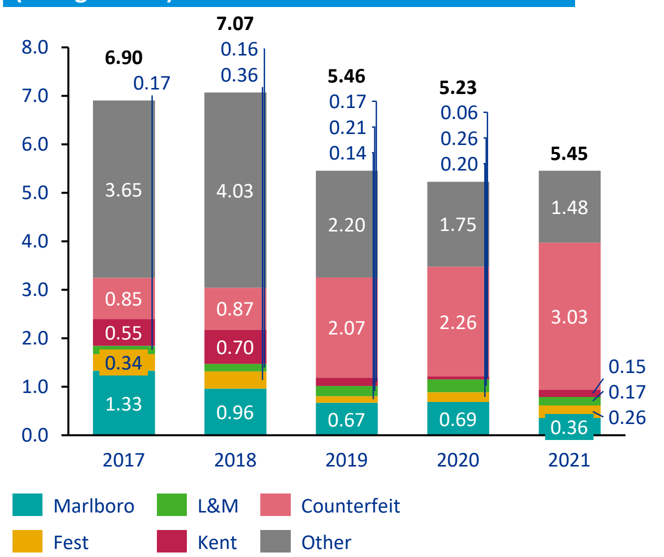
— Legal inflows (ND(L)) declined by 17% or 0.24bn mainly due to declining flows from Spain, Duty Free Labelled and the ‘Other’ category, partly offset by increases in flows from Poland and Greece

— C&C consumption increased in 2021 to a level similar to that seen in 2019. Counterfeit accounted for over 56% of total C&C in 2021

C&C by country of origin – 2017-2021 (bn cigarettes)[1](a)

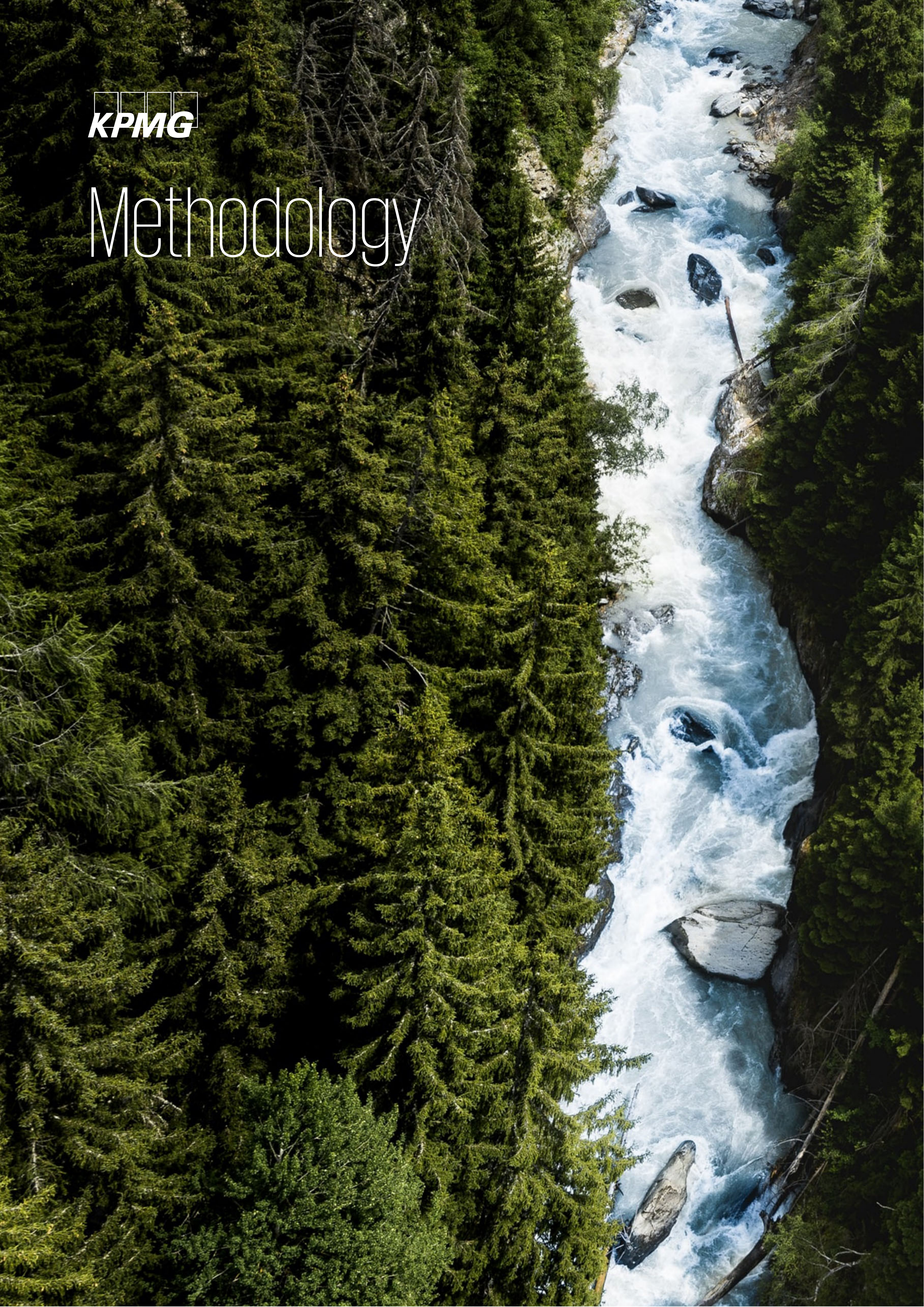


C&C by brand – 2017-2021 (bn cigarettes)[1](a)



Note: (a) Only includes Counterfeit volumes related to brands of manufactures who participate in the empty pack/yellow bag surveys.

Source: (1) KPMG EU Flows Calculation, 2017-21



Methodology

Overview

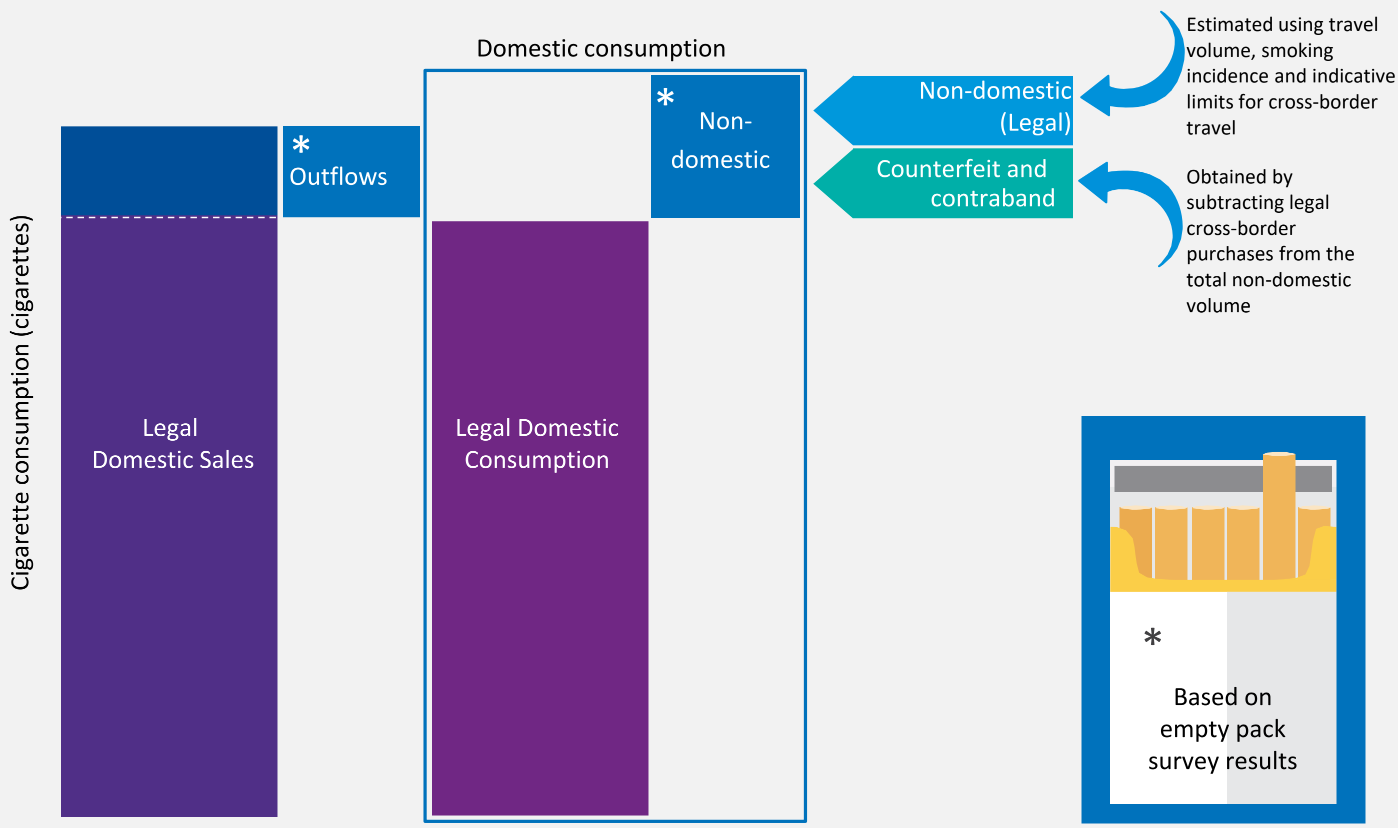
KPMG has developed and refined its methodology for estimating annual Counterfeit and contraband incidence across the 27 EU markets and the UK since 2006, with Norway and Switzerland included in the annual study since 2014	The methodology has been tested extensively and refined to seek to ensure that it delivers robust and justifiable results — Our approach integrates multiple sources and custom-built analytical tools — 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'). — As a part of the 2018 study, an external panel of experts with a background in law enforcement, brand protection and tobacco control was appointed by KPMG. 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
The methodology is based primarily on objective evidence from LDS and empty pack survey results, which are input to the bespoke EU Flows Calculation	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 — 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 the EU Member States, the UK, Norway and Switzerland — LDS is the starting point of the methodology, from which outflows of legal sales to other countries are then subtracted to estimate Legal Domestic Consumption (LDC) — Inflows from other countries are then added to estimate the total consumption within a market — This methodology has been developed by KPMG for the manufactured cigarettes market specifically. For that reason, an assessment of other tobacco products (both legal and illicit) is excluded from the scope of this Report
Empty pack survey results provide a robust indication of the incidence of non-domestic and Counterfeit packs and their country of origin	An empty pack survey relies purely on physical evidence, avoiding the potential for consumer bias found in interview-based methods — 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 — Over 511,400 packs were collected in 2021 as part of this research — Further detail regarding the reliability and validity of empty pack survey, the sampling approach and results by country at a regional level are provided later in this Report — 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"
Tourism and travel trends are used to estimate legal non-domestic cigarette purchases	Tourism and travel data provided by publicly-available 3rd party sources are used to estimate genuine, legal non-domestic tobacco purchases (including cross-border shopping) in each market based on inbound visitor inflows — United Nations World Tourism Organisation[(a)] data is the primary source used to identify travel trends, supplemented with Euromonitor and other publicly available data — European Commission releases[(b)] are the source of the weighted average price of a pack of cigarettes in the EU countries. Where flows come into a country from a higher priced country they are assumed to be 100% legal, as there is no price incentive for smuggling

Notes: (a) UNWTO; (b) EC Excise Duty Tables, July 2021 (Part III – Manufactured Tobacco)

Overview

There are some specific limitations in the methodology	Given the complexity of measuring C&C, we recognise there are some limitations within the methodology There are broadly two types of limitations: scope exclusions and source limitations — 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 (other tobacco products) and legal domestic product flows out of the EU — Source limitations include the availability of information and the potential errors inherent with any data sources such as sampling criteria, coverage issues and seasonality factors
To help improve the accuracy of results, some minor refinements were necessary at a country level	Comparison of results from alternative sources identified a few markets where country-to-country flows required minor adjustment — 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 185 for further details

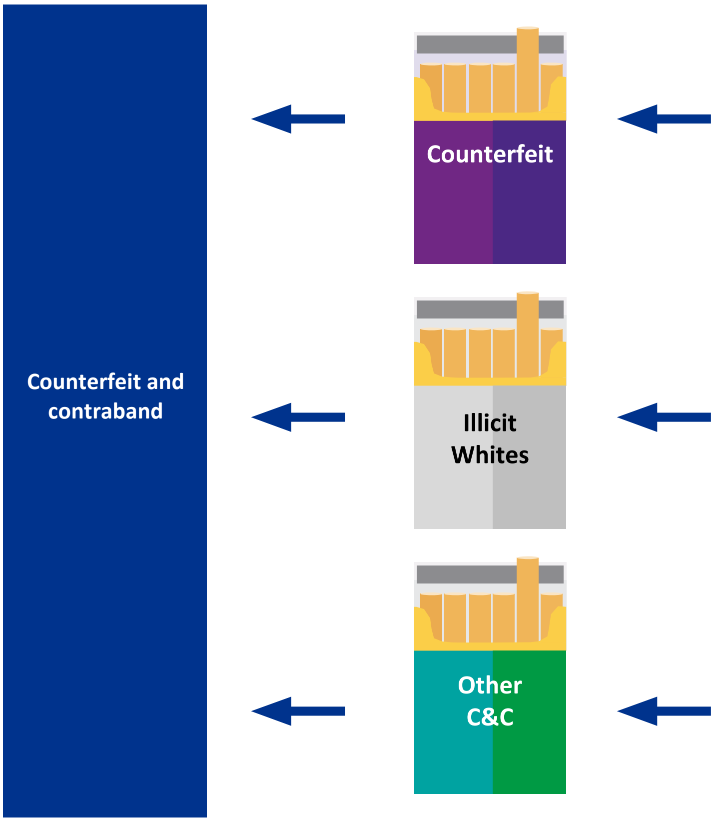
This methodology uses LDS, empty pack survey results and other consumer research to estimate the volume of C&C cigarettes consumed in the EU



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



Counterfeit packets are identified by those manufacturers participating in the given wave of empty pack survey research. Each manufacturer analyses their own packaging from the packs collected and marks whether or not the pack is Counterfeit

Illicit Whites are defined as cigarettes which are usually manufactured legally in one country or market but which the evidence suggests have been smuggled across borders to the destination market where they have limited or no legal distribution and are sold without the payment of tax. KPMG has an approach to estimate Illicit Whites brand flows using specific criteria described on page 207

'Other C&C' comprises contraband which does not fall within the Illicit Whites definition. It is often Duty Paid product from both EU and non-EU countries. There may also be counterfeit of brands that are not trademark-owned by participant manufacturers[a]

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

Around 41% of illicit product identified within this Report is defined as 'Other C&C'. However, when compared to OLAF seizures data, 'Other C&C' accounts for 2%-3% of total seizures volumes[1]

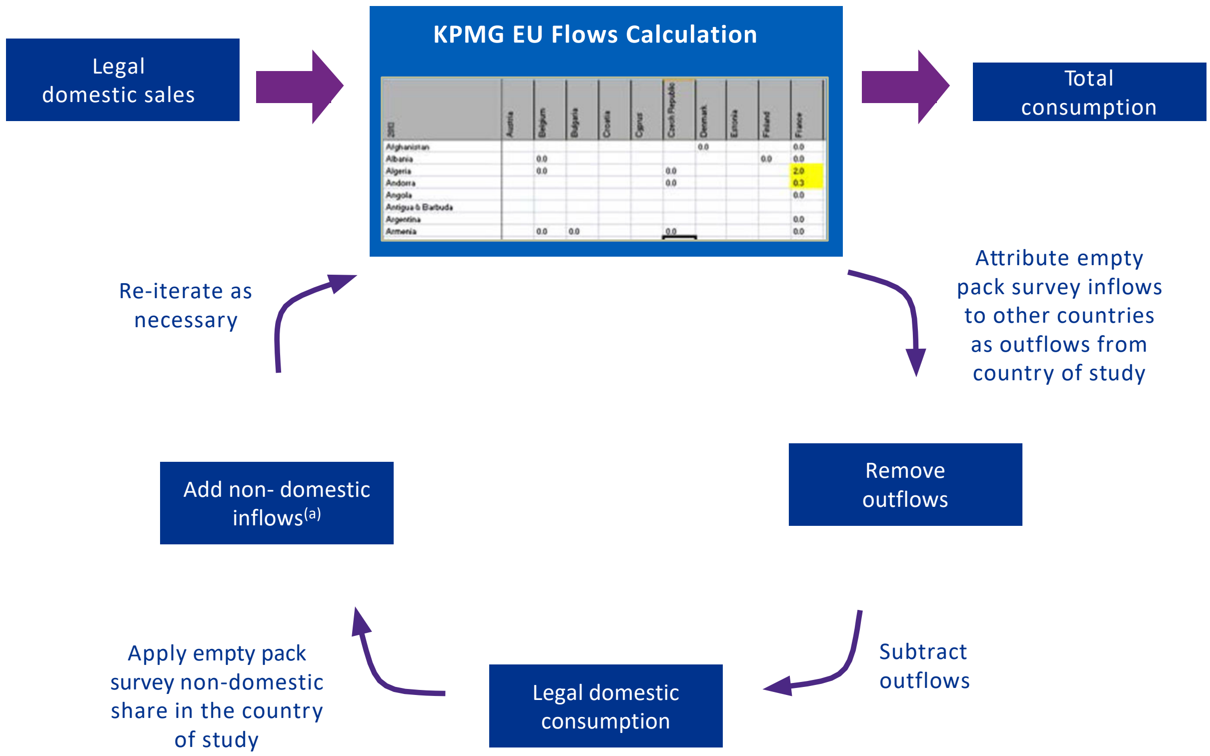
There are several possible explanations for this difference:

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

Note: (a) Cigarette packs of brands that are not trade mark owned by participant manufacturers are not analysed and are all considered to be genuine
Source: (1) OLAF, OLAF helps stop over 430 million illicit cigarettes from flooding the UK market, 23 February 2022

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, the 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 In Market Sales (IMS) data compiled by 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. For 2021, this is the case 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)

Overview	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 — 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. — 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 — Results are not subject to respondent behaviour and are therefore less prone to sampling errors than many other alternative methodologies — Results reflect actual overall non-domestic share and provide a good snapshot of brands consumed
Process	Empty pack surveys rely purely on physical evidence, avoiding the potential for consumer bias in interview-based methods — The independent market research agencies randomly collect empty packs of any brand and market variant from streets and easy access bins — Homes and workplaces are not visited and the collection route specifically excludes sports stadia, shopping malls and stations, or any other locations where non-domestic incidence is likely to be higher as a result of a skewed population or demographic visiting these areas — Once packs are collected, they are sorted by manufacturer and brand and the number of packs with domestic versus non-domestic tax stamps counted to determine the proportion of packs that did not originate from that jurisdiction (including Duty Free variants) – In cases where tax stamps are not shown on a packet, health warning and packaging characteristics are used to determine the source market and where no markings are found they are recorded as unspecified — For brands belonging to the major manufacturers, packs are sent to the manufacturers for analysis to determine which are genuine and which are Counterfeit. Only the manufacturers can determine this, based on ink, paper and other characteristics of the packaging — KPMG used the results of the empty pack surveys to extrapolate overall consumption in the market using LDS and the percentage of non-domestic cigarettes in the market as found through empty pack surveys — The process is repeated across all countries of study using an approach which iterates the level of non-domestic cigarettes until all inflows and outflows are equal
Coverage	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 — Small surveys (300-4,999 packs): Croatia, Cyprus, Luxembourg, Malta, Portugal, Slovenia — Medium surveys (5,000-9,999 packs): Austria, Belgium, Estonia, Finland, Ireland, Latvia, Lithuania, Norway, Slovakia, Switzerland — Large surveys (10,000 packs or more collected): Bulgaria, Czech Republic, Denmark, France, Germany, Greece, Hungary, Italy, Netherlands, Poland, Romania, Spain, Sweden, UK

Empty pack survey methodology (2)

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

Overview	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 — This update to the approach was made to help give a more accurate result for the volume flows between EU countries, as pack sizes vary on a country by country basis
Process	Empty pack survey results provide the number of cigarettes in each packet — It is therefore possible to calculate the total number of sticks accounted for by the pack collection despite the different size packs, hence improving the overall accuracy of volume estimations
Impact	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 — In countries where the average domestic pack size was less than 20 cigarettes (for example, historically most LDS in the UK and Italy were of 10 or 20 cigarette packs, giving an average domestic pack size of less than 20 cigarettes, and in Denmark domestic cigarettes were sold in packs of 19), then the conversion to a sticks basis is likely to decrease the proportion of domestic cigarettes in the empty pack survey sample, giving a higher non-domestic incidence than estimating on a pack basis — In countries where the average domestic pack size was greater than 20 cigarettes (for example in Luxembourg domestic packs typically contain 20, 25 or 30 cigarettes), then the conversion to a sticks basis was likely to increase the proportion of domestic cigarettes in the empty pack survey sample, giving a lower non-domestic incidence than estimating on a pack basis

Empty pack survey methodology

Empty pack survey methodology[1]

1. Population centre selection → 2. Pack collection → 3. Pack processing → 4. Pack analysis

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

2021 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
1. Brand oversampling	Domestic packs collected by brand in the empty pack survey deviate significantly from the domestic brand shares	— Some brands may be oversampled which we can check through a comparison with the LDS — KPMG assumes that an oversampling of brands domestically will result in an oversampling of brands non-domestically. As a result, the weights of non-domestic packs are adjusted using the assumption that non-domestic packs are oversampled to the same extent as domestic packs	France (Marlboro), Spain (Ducal)
2. Adjustments to specific country flows	The flows from some countries appear to have been over or under-sampled based on the timing of the survey, areas sampled, or sales from other countries	— Adjustments were made when the empty pack surveys over or under sampled some flows as highlighted by other sources of data — Some examples include: – 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 A detailed list of empty pack survey adjustments and their impact can be found in the following pages	Belgium, France, Netherlands

Empty pack survey adjustments

2021 empty pack survey – adjustments made in KPMG analysis

Country	Sample dates	Packs collected	Number of cities	Adjustment	Impact
Austria	Q2: Nov	6,500	24	None	n/a
Belgium	Q2: Apr-May Q4: Oct-Nov	5,600	18	**Country flows adjustments:** — Empty pack survey results suggested a large decline in inflows to Belgium which was not in line with the increase in travel volumes observed in 2021[1] — This appears to be the result of Belgium Q2 empty pack collection coinciding with a period of COVID-19 related lockdown, which would lead to understated non-domestic volumes[2] — Therefore, the weights of the two surveys were adjusted to ensure that the Q2 survey was representative of the lockdown period (68 days) and the Q4 survey was representative of the remaining 297 days in 2021 (i.e. when stricter travel restrictions were not in place)	—Inflows to Belgium increased from 0.77bn to 1.01bn
Bulgaria	Q1: Mar Q2: May-Jun Q3: Sep Q4: Nov	23,200	20	None	n/a
Croatia	Q4: Oct	3,000	8	None	n/a
Cyprus	Q4: Oct	1,000	4	None	n/a
Czech Republic	Q2: Apr-May Q4: Sep-Oct	20,423	30	None	n/a
Denmark	Q2: Apr Q4: Sep-Oct	10,000	6	None	n/a
Estonia	Q2: May Q3: Sep	6,600	14	None	n/a
Finland	Q2: Jun-Jul	5,000	10	None	n/a

Source: (1) UNWTO (2) Overview: From the lockdown on March 18 to the most recent corona measures: this is the route that Belgium has gone through so far, HLN, 11 May 2021

Empty pack survey adjustments

2021 empty pack survey – adjustments made in KPMG analysis

Country	Sample dates	Packs collected	Number of cities	Adjustment	Impact
France	Q1: Feb Q2: May-Jun Q3: Aug Q4: Nov-Dec	46,000	126	**Country flows adjustments:** Inflows from Spain 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) — Inflows were adjusted to reflect tourism trends and border sales, which indicate higher flows into France **Brand adjustment:** — 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 The adjustments above are not mutually exclusive and the Brand adjustments also impact the Country flows adjustments	— Inflows from Spain increased from 1.24bn to 2.56bn — Inflows from Belgium increased from 0.56bn to 0.7bn — Reduction of 0.31bn of non-domestic Marlboro cigarettes

Empty pack survey adjustments

2021 empty pack survey – adjustments made in KPMG analysis

Country	Sample dates	Packs collected	Number of cities	Adjustment	Impact
Germany	Every month	120,000	43	Historically, Counterfeit data provided before 2019 was unweighted. The provision of regionally-weighted Counterfeit data from 2020 allows a more precise Counterfeit estimate by more accurately reflecting regional Counterfeit volumes and therefore total Counterfeit consumption	n/a
Greece	Q2: Apr Q3: Sep Q4: Nov	18,000	20	None	n/a
Hungary	Q3: Aug	17,241	40	None	n/a
Ireland	Q2: Jun	5,000	22	None	n/a
Italy	Q1: Feb Q2: May-Jun Q3: Aug Q4: Oct-Dec	40,000	85	None	n/a
Latvia	Q2: May Q3: Sep	9,800	25	None	n/a
Lithuania	Q2: Jun Q3: Sep	11,600	20	None	n/a
Luxembourg	Q2: Apr Q4: Oct	400	2	None	n/a
Malta	Q4: Oct-Nov	1,000	8	None	n/a
Netherlands	Q2: Apr-May Q4: Sep-Oct	14,000	50	**Country flows adjustments:** — Empty pack surveys indicated a large increase of inflows which was not reflective of travel trends in 2020-21 — This was driven by the high non-domestic volumes observed in the Q4 empty pack survey collection which, using our standard methodology, would be extrapolated to be representative of the second half of 2021 — Therefore, the weights of the two surveys were adjusted to assume that the Q4 survey was representative of the last quarter and the Q2 survey was representative of the first three quarters	—Inflows to Netherlands reduced from 3.77bn to 2.92bn
Norway	Q3: Jul	5,000	8	None	n/a
Poland	Q1: Mar Q2: Apr-May Q3: Aug Q4: Oct-Nov	50,000	40	None	n/a
Portugal	Q2: Apr-May	3,000	10	None	n/a
Romania	Q1: Jan-Mar Q2: May-Jun Q3:Jun-Jul,Sep Q4: Oct-Dec	10,049	41	None	n/a

Empty pack survey adjustments

2021 empty pack survey – adjustments made in KPMG analysis

Country	Sample dates	Packs collected	Number of cities	Adjustment	Impact
Slovakia	Q2: Jun	5,000	25	None	n/a
Slovenia	Q4: Sep-Oct	3,000	8	None	n/a
Spain	Q2: Apr-May Q4: Oct	30,000	58	**Brand adjustment:** — 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. Therefore the weights of non-domestic packs were adjusted using the assumption that non-domestic packs were oversampled to the same extent as domestic packs	— Inflows for Ducal brand reduced from 1.37bn to 0.63bn
Sweden	Q2: Jun	10,000	29	None	n/a
Switzerland	Q3: Sep	5,600	20	None	n/a
UK	Q2: Apr Q3: Aug	25,400	105	None	n/a

Empty pack survey analysis

Empty pack survey comparison

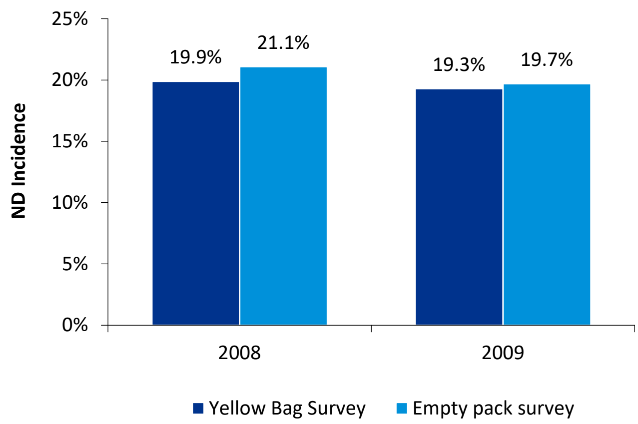
Comparison of empty pack survey analysis

— 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. With the household waste survey, known as a Yellow Bag Survey (YBS), it is possible in Germany because household waste is sorted, mainly for the purposes of recycling. This 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 the empty pack survey and Yellow Bag survey in 2008 and 2009, the only years where both surveys were run simultaneously

— 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[(1)(2)(3)(a)(b)]

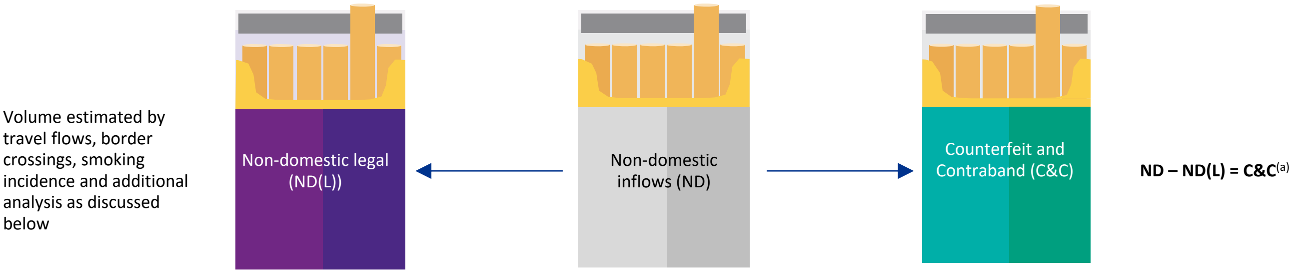


Notes: (a) The comparison between methodologies is made on a "sticks basis" in 2008 and 2009 rather than a packs basis. These were the only years for which both yellow bag survey and empty pack survey were available

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 two 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, as there is no price incentive to smuggle
2. **Travel flows analysis**
   – Business and tourism travel data from the World Tourism Organization (UNWTO), Euromonitor, national statistics offices and other publicly 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 cigarette smoking prevalence of the country of origin to estimate the total number of trips by cigarette smokers. Smoking prevalence data for 2021 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

1 Countries where ND(L) is 100% of total: ND(L) is 100% of total non-domestic ► ND from EU Flows Calculation = **Total ND(L) (sticks)**

2 Travel flows analysis: Total trips where cigarettes purchased X Cigarettes per trip = **Total ND(L) (sticks)**

Example using illustrative data[(c)]

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

Country of Origin	ND (bn sticks)[(1)]	ND(L) (bn sticks)	% of ND
Belgium	0.78	0.78	100%

2 Travel flows analysis

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

Notes: (a) KPMG 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
(c) Data shown is illustrative only. Refer to pages 197-206 for details of the actual ND(L) calculations for the 30 markets in this study

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

Non-domestic legal analysis (2)

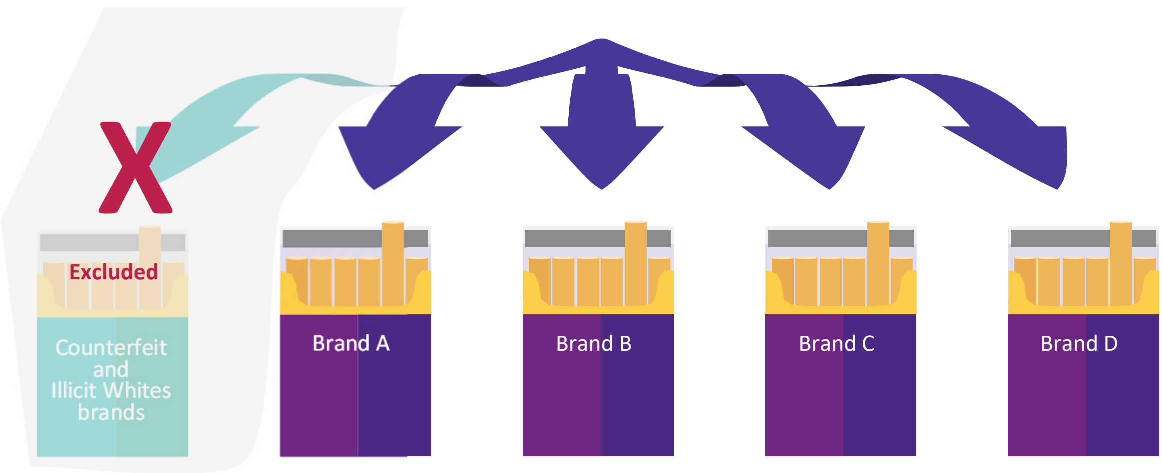
Non-domestic legal brand split analysis and assumptions

Illustrative example of ND(L) by brand approach

ND(L) by brand from Country A = **Empty pack survey legitimate brand share from Country A (%)** X **ND(L) from Country A**

Illustrative example of Brand Share calculation

Non-domestic Brands from Country A
(as per empty pack survey)



Empty pack survey legitimate brand share from Country A (%)

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

2021 non-domestic legal adjustments

Country	Adjustment
Austria	**ND(L) from Czech Republic** Assumed to be predominately legal due to the countries' proximity and high non-tourism travel volumes **ND(L) from Slovenia** Assumed to be predominately legal due to high non-tourism travel volumes **ND(L) from Slovakia** ND(L) in Eastern Border areas from Slovakia assumed to be predominately legal given large price differentials and opportunities for Austrians to cross-border shop
Belgium	**ND(L) from Luxembourg** Assumed to be predominately legal due to high non-tourism travel volumes
Bulgaria	None
Croatia	None
Cyprus	None
Czech Republic	None
Denmark	None
Estonia	None
Finland	None
France	**Change in intra-EU cigarette cross-border legal limit** French authorities changed the legally allowed pack limit from 40 packs to 10 packs for all EU countries with effect from 1st August 2020 **ND(L) from Spain, Belgium and Luxembourg** In addition to tourist ND(L), ND(L) flows into France were increased to account for legal flows from border shoppers (using data points on 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 **ND(L) from Algeria** 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

Non-domestic legal adjustments

2021 non-domestic legal adjustments

Country	Adjustment
Germany	**ND(L) from Czech Republic** Czech Republic ND(L) was calculated at 2.19bn, by supplementing the WTO traveller numbers with border crossing data from the Czech Statistics Office and yearly change in travel volume from Euromonitor. This is because WTO traveller data does not account for the high number of non-tourism related border crossings between Germany and Czech Republic related to workers and shoppers. The updated number of travellers was multiplied by the adult population %, smoking prevalence % and an assumed allowance of 420 cigarettes per person (cigarette number based on previous consumer research provided by PMI pre 2016) **ND(L) from Poland** Poland ND(L) was calculated at 3.82bn, by supplementing the WTO traveller numbers with border crossing data from the Polish government website. This is because WTO traveller data does not account for the high number of non-tourism related border crossings between Germany and Poland related to workers and shoppers. The updated number of travellers was multiplied by the adult population %, smoking prevalence % and an assumed 500 cigarettes per person (cigarette number based on previous consumer research provided by PMI pre 2016) **ND(L) from Duty Free** Duty Free ND(L) was increased by 0.09bn 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 where similar research exists **ND(L) from Luxembourg** Assumed to be predominately legal due to the high number of border crossings
Greece	None
Hungary	None
Ireland	None
Italy	None
Latvia	None
Lithuania	None

Non-domestic legal adjustments

2021 non-domestic legal adjustments

Country	Adjustment
Luxembourg	None
Malta	None
Netherlands	None
Norway	**ND(L) from Sweden** 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 in Norway **ND(L) from World Wide Duty Free** Assumed to be predominately legal. As Norway is a non-EU market, Norwegians can purchase Duty Free when travelling to the EU and abroad
Poland	None
Portugal	None
Romania	None
Slovakia	None
Slovenia	None
Spain	**ND(L) from Andorra** ND(L) was increased to 0.11bn (from an original 0.08bn). This is to reflect additional border crossings (sourced from 2021 Nielsen study 'Volume assessment among travellers in Andorra 2021' and 2021 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 **ND(L) from Canary Islands** ND(L) has been estimated at 0.11bn using total tourist border crossings sourced from government data as tourist data between Spain and the Canary Islands is not recorded in the WTO travel database. This flow is considered predominately legal given high tourism volumes **ND(L) from Gibraltar** ND(L) has been adjusted to 0.93bn (from an original 0.00bn). This is to reflect government data on total border crossings in 2021 of 9.4m which does not get captured in WTO travel data. This is then split between tourists and workers (sourced from HM Government of Gibraltar: Frontier workers by nationality, 2021 (Employment department) and Land frontier visitor arrivals, 2020 (Tourism department)) extrapolated for 2021, using 2020-21 CAGR of Inbound arrivals from Gibraltar to Spain sourced from Euromonitor. The relevant smoking prevalence for workers and tourists, adult population and purchase assumptions are then used to calculate total ND(L)
Sweden	None
Switzerland	**ND(L) from Germany** Assumed to be predominately legal given its proximity and large number of tourists and cross border workers **ND(L) from World Wide Duty Free** Assumed to be predominately legal. As Switzerland is a non-EU market, Swiss can purchase Duty Free when travelling to the EU and abroad

Non-domestic legal adjustments

2021 non-domestic legal adjustments

Country	Adjustment
UK	**ND(L) from Poland** The smoking prevalence of Polish visitors to the UK was increased from 22.0% to 23.5% 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' subsequently extrapolated for 2021 using 2019-21 CAGR of inbound arrivals from Poland to UK sourced from Euromonitor) The smoking prevalence of UK visitors to Poland was also updated to 18.9% (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 2021 (using 2019-21 CAGR of outbound departures from UK to Poland sourced from Euromonitor). 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 0.20bn to 0.38bn **ND(L) from Romania** 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 0.09bn **ND(L) from Duty Free** Duty Free ND(L) was increased by 0.08bn 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 Germany where similar research exists

Non-domestic legal analysis

Primary information sources and tools – 2021 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)
Slovenia	Outbound	Flows considered predominantly legal							0.24bn
	Inbound								
Czech Republic	Outbound	Figure based on tourism statistics and border region consumption analysis							0.13bn
	Inbound								
Germany	Outbound	Flows considered predominantly legal							0.10bn
	Inbound								
Slovakia	Outbound	Figure based on tourism statistics and border region consumption analysis							0.07bn
	Inbound								
Others									0.26bn
Total									**0.80bn**

Belgium

Country		# of border crossings	Population 18+	Smoking prevalence	Smoker trips	Packs per trip	# of cigarettes	ND(L) volume	Total ND(L)
Luxembourg	Outbound	Figure based on tourism statistics and border region consumption analysis							0.42bn
	Inbound								
Netherlands	Outbound	Flows considered predominantly legal							0.04bn
	Inbound								
France	Outbound	Flows considered predominantly legal							0.03bn
	Inbound								
Spain	Outbound	Flows considered predominantly legal							0.02bn
	Inbound								
Others									0.12bn
Total									**0.64bn**

Bulgaria

Country		# of border crossings	Population 18+	Smoking prevalence	Smoker trips	Packs per trip	# of cigarettes	ND(L) volume	Total ND(L)
Turkey	Outbound	Flows considered predominantly legal							0.01bn
	Inbound								
Germany	Outbound	Flows considered predominantly legal							0.01bn
	Inbound								
The Republic of North Macedonia	Outbound	0.02m	83%	35%	0.01m	10	200	0.00bn	0.00bn
	Inbound	0.28m	81%	29%	0.06m	2	40	0.00bn	
Serbia	Outbound	Figure based on tourism statistics and border region consumption analysis							0.00bn
	Inbound								
Others									0.04bn
Total									**0.06bn**

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 – 2021 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)
Slovenia	Outbound	Flows considered predominantly legal							0.03bn
	Inbound								
Austria	Outbound	Flows considered predominantly legal							0.01bn
	Inbound								
Bosnia and Herzegovina	Outbound	0.06m	83%	33%	0.02m	10	200	0.00bn	0.00bn
	Inbound	0.18m	82%	28%	0.04m	2	40	0.00bn	
Italy	Outbound	Flows considered predominantly legal							0.00bn
	Inbound								
Others									0.01bn
Total									**0.06bn**

Cyprus									
Country		# of border crossings	Population 18+	Smoking prevalence	Smoker trips	Packs per trip	# of cigarettes	ND(L) volume	Total ND(L)
Greece	Outbound	Figure based on tourism statistics and border region consumption analysis							0.00bn
	Inbound								
Russia	Outbound	0.00m	80%	29%	0.00m	10	200	0.00bn	0.00bn
	Inbound	0.35m	79%	25%	0.07m	2	40	0.00bn	
Romania	Outbound	0.01m	80%	29%	0.00m	40	800	0.00bn	0.00bn
	Inbound	0.02m	81%	27%	0.00m	2	40	0.00bn	
Belarus	Outbound	0.00m	80%	29%	0.00m	10	200	0.00bn	0.00bn
	Inbound	0.00m	80%	24%	0.00m	2	40	0.00bn	
Others									0.00bn
Total									**0.01bn**

Czech Republic									
Country		# of border crossings	Population 18+	Smoking prevalence	Smoker trips	Packs per trip	# of cigarettes	ND(L) volume	Total ND(L)
Poland	Outbound	Flows considered predominantly legal							0.21bn
	Inbound								
Germany	Outbound	Flows considered predominantly legal							0.18bn
	Inbound								
Slovakia	Outbound	Flows considered predominantly legal							0.05bn
	Inbound								
Romania	Outbound	Flows considered predominantly legal							0.03bn
	Inbound								
Others									0.12bn
Total									**0.60bn**

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 – 2021 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)**
Germany	Outbound	Flows considered predominantly legal							0.05bn
	Inbound								
Sweden	Outbound	0.17m	80%	15%	0.02m	40	800	0.02bn	0.02bn
	Inbound	0.70m	79%	11%	0.06m	2	40	0.00bn	
Poland	Outbound	0.15m	80%	15%	0.02m	40	800	0.01bn	0.01bn
	Inbound	0.06m	82%	22%	0.01m	2	40	0.00bn	
Greece	Outbound	Flows considered predominantly legal							0.01bn
	Inbound								
Others									0.09bn
Total									**0.19bn**

Estonia									
Country		**# of border crossings**	**Population 18+**	**Smoking prevalence**	**Smoker trips**	**Packs per trip**	**# of cigarettes**	**ND(L) volume**	**Total ND(L)**
Latvia	Outbound	Flows considered predominantly legal							0.01bn
	Inbound								
Bulgaria	Outbound	0.01m	81%	24%	0.00m	40	800	0.00bn	0.00bn
	Inbound	0.00m	83%	35%	0.00m	2	40	0.00bn	
Lithuania	Outbound	Flows considered predominantly legal							0.00bn
	Inbound								
Egypt	Outbound	0.03m	81%	24%	0.01m	10	200	0.00bn	0.00bn
	Inbound	0.00m	60%	19%	0.00m	2	40	0.00bn	
Others									0.01bn
Total									**0.02bn**

Finland									
Country		**# of border crossings**	**Population 18+**	**Smoking prevalence**	**Smoker trips**	**Packs per trip**	**# of cigarettes**	**ND(L) volume**	**Total ND(L)**
Estonia	Outbound	0.34m	81%	16%	0.04m	40	800	0.04bn	0.04bn
	Inbound	0.02m	81%	24%	0.00m	2	40	0.00bn	
Latvia	Outbound	0.14m	81%	16%	0.02m	40	800	0.01bn	0.01bn
	Inbound	0.01m	81%	31%	0.00m	2	40	0.00bn	
Poland	Outbound	0.13m	81%	16%	0.02m	40	800	0.01bn	0.01bn
	Inbound	0.01m	82%	22%	0.00m	2	40	0.00bn	
Greece	Outbound	Figure based on tourism statistics and border region consumption analysis							0.00bn
	Inbound								
Others									0.05bn
Total									**0.11bn**

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 – 2021 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	Figure based on tourism statistics and border region consumption analysis							1.23bn
	Inbound								
Belgium	Outbound	Figure based on tourism statistics and border region consumption analysis							0.42bn
	Inbound								
Luxembourg	Outbound	Figure based on tourism statistics and border region consumption analysis							0.32bn
	Inbound								
Italy	Outbound	Flows considered predominantly legal							0.18bn
	Inbound								
Others									0.99bn
Total									**3.14bn**

Germany									
Country		**# of border crossings**	**Population 18+**	**Smoking prevalence**	**Smoker trips**	**Packs per trip**	**# of cigarettes**	**ND(L) volume**	**Total ND(L)**
Poland	Outbound	Flows considered predominantly legal							3.82bn
	Inbound								
Czech Republic	Outbound	Figure based on tourism statistics and border region consumption analysis							2.19bn
	Inbound								
Luxembourg	Outbound	Flows considered predominantly legal							0.37bn
	Inbound								
Austria	Outbound	Figure based on tourism statistics and border region consumption analysis							0.23bn
	Inbound								
Others									1.17bn
Total									**7.79bn**

Greece									
Country		**# of border crossings**	**Population 18+**	**Smoking prevalence**	**Smoker trips**	**Packs per trip**	**# of cigarettes**	**ND(L) volume**	**Total ND(L)**
Bulgaria	Outbound	Figure based on tourism statistics and border region consumption analysis							0.04bn
	Inbound								
Cyprus	Outbound	Figure based on tourism statistics and border region consumption analysis							0.00bn
	Inbound								
Turkey	Outbound	Flows considered predominantly legal							0.00bn
	Inbound								
Poland	Outbound	Flows considered predominantly legal							0.00bn
	Inbound								
Others									0.07bn
Total									**0.12bn**

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 – 2021 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	0.19m	82%	29%	0.05m	10	200	0.01bn	0.01bn
	Inbound	0.61m	82%	23%	0.11m	2	40	0.00bn	
Austria	Outbound	Flows considered predominantly legal							0.01bn
	Inbound								
Romania	Outbound	Flows considered predominantly legal							0.01bn
	Inbound								
Slovakia	Outbound	Flows considered predominantly legal							0.01bn
	Inbound								
Others									0.06bn
Total									**0.10bn**

Ireland									
Country		# of border crossings	Population 18+	Smoking prevalence	Smoker trips	Packs per trip	# of cigarettes	ND(L) volume	Total ND(L)
Poland	Outbound	0.16m	76%	18%	0.02m	40	800	0.02bn	0.02bn
	Inbound	0.13m	82%	22%	0.02m	2	40	0.00bn	
UK	Outbound	Flows considered predominantly legal							0.02bn
	Inbound								
Spain	Outbound	Flows considered predominantly legal							0.01bn
	Inbound								
Portugal	Outbound	Flows considered predominantly legal							0.00bn
	Inbound								
Others									0.05bn
Total									**0.11bn**

Italy									
Country		# of border crossings	Population 18+	Smoking prevalence	Smoker trips	Packs per trip	# of cigarettes	ND(L) volume	Total ND(L)
Slovenia	Outbound	0.27m	84%	22%	0.05m	40	800	0.04bn	0.07bn
	Inbound	4.64m	82%	20%	0.77m	2	40	0.03bn	
Romania	Outbound	0.14m	84%	22%	0.03m	40	800	0.02bn	0.03bn
	Inbound	1.53m	81%	27%	0.33m	2	40	0.01bn	
Poland	Outbound	Flows considered predominantly legal							0.03bn
	Inbound								
UK	Outbound	Flows considered predominantly legal							0.02bn
	Inbound								
Others									0.38bn
Total									**0.54bn**

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 – 2021 non-domestic legal major flow calculations

Latvia									
Country		# of border crossings	Population 18+	Smoking prevalence	Smoker trips	Packs per trip	# of cigarettes	ND(L) volume	Total ND(L)
Russia	Outbound	0.13m	81%	31%	0.03m	2	40	0.00bn	0.00bn
	Inbound	0.33m	79%	25%	0.07m	2	40	0.00bn	
Belarus	Outbound	0.12m	81%	31%	0.03m	2	40	0.00bn	0.00bn
	Inbound	0.06m	80%	24%	0.01m	2	40	0.00bn	
Estonia	Outbound	Flows considered predominantly legal							0.00bn
	Inbound								
Ukraine	Outbound	0.01m	81%	31%	0.00m	10	200	0.00bn	0.00bn
	Inbound	0.02m	82%	23%	0.00m	2	40	0.00bn	
Other									0.01bn
Total									**0.02bn**

Lithuania									
Country		# of border crossings	Population 18+	Smoking prevalence	Smoker trips	Packs per trip	# of cigarettes	ND(L) volume	Total ND(L)
Poland	Outbound	Flows considered predominantly legal							0.01bn
	Inbound								
Belarus	Outbound	0.67m	82%	25%	0.14m	2	40	0.01bn	0.01bn
	Inbound	0.07m	80%	24%	0.01m	2	40	0.00bn	
Latvia	Outbound	Flows considered predominantly legal							0.00bn
	Inbound								
Germany	Outbound	Flows considered predominantly legal							0.00bn
	Inbound								
Other									0.02bn
Total									**0.05bn**

Luxembourg									
Country		# of border crossings	Population 18+	Smoking prevalence	Smoker trips	Packs per trip	# of cigarettes	ND(L) volume	Total ND(L)
Belgium	Outbound	0.08m	81%	19%	0.01m	40	800	0.01bn	0.01bn
	Inbound	0.12m	80%	20%	0.02m	2	40	0.00bn	
France	Outbound	Flows considered predominantly legal							0.01bn
	Inbound								
Germany	Outbound	Flows considered predominantly legal							0.00bn
	Inbound								
Greece	Outbound	0.03m	81%	19%	0.00m	40	800	0.00bn	0.00bn
	Inbound	0.00m	83%	31%	0.00m	2	40	0.00bn	
Others									0.00bn
Total									**0.03bn**

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 – 2021 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	Flows considered predominantly legal							0.00bn
	Inbound								
Denmark	Outbound	0.00m	83%	21%	0.00m	40	800	0.00bn	0.00bn
	Inbound	0.02m	80%	15%	0.00m	2	40	0.00bn	
Ireland	Outbound	0.00m	83%	21%	0.00m	40	800	0.00bn	0.00bn
	Inbound	0.03m	76%	18%	0.00m	2	40	0.00bn	
Belgium	Outbound	0.01m	83%	21%	0.00m	40	800	0.00bn	0.00bn
	Inbound	0.04m	80%	20%	0.01m	2	40	0.00bn	
Other									0.00bn
Total									**0.01bn**

Netherlands									
Country		# of border crossings	Population 18+	Smoking prevalence	Smoker trips	Packs per trip	# of cigarettes	ND(L) volume	Total ND(L)
Germany	Outbound	Flows considered predominantly legal							0.23bn
	Inbound								
Belgium	Outbound	1.33m	81%	18%	0.20m	40	800	0.16bn	0.17bn
	Inbound	1.25m	80%	20%	0.20m	2	40	0.01bn	
Spain	Outbound	Flows considered predominantly legal							0.05bn
	Inbound								
Poland	Outbound	0.38m	81%	18%	0.06m	40	800	0.05bn	0.05bn
	Inbound	0.00m	82%	22%	0.00m	2	40	0.00bn	
Other									0.27bn
Total									**0.76bn**

Poland									
Country		# of border crossings	Population 18+	Smoking prevalence	Smoker trips	Packs per trip	# of cigarettes	ND(L) volume	Total ND(L)
Ukraine	Outbound	0.52m	82%	22%	0.09m	2	40	0.00bn	0.07bn
	Inbound	9.05m	82%	23%	1.70m	2	40	0.07bn	
Germany	Outbound	Flows considered predominantly legal							0.06bn
	Inbound								
Italy	Outbound	Flows considered predominantly legal							0.05bn
	Inbound								
Czech Republic	Outbound	Flows considered predominantly legal							0.01bn
	Inbound								
Other									0.16bn
Total									**0.34bn**

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 – 2021 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				Flows considered predominantly legal				0.00bn
	Inbound								
Italy	Outbound				Flows considered predominantly legal				0.00bn
	Inbound								
Others									0.03bn
Total									**0.04bn**

Romania

Country		# of border crossings	Population 18+	Smoking prevalence	Smoker trips	Packs per trip	# of cigarettes	ND(L) volume	Total ND(L)
Bulgaria	Outbound				Flows considered predominantly legal				0.03bn
	Inbound								
Ukraine	Outbound				Flows considered predominantly legal				0.01bn
	Inbound								
Moldova	Outbound	0.02m	81%	27%	0.00m	10	200	0.00bn	0.01bn
	Inbound	0.80m	81%	25%	0.16m	2	40	0.01bn	
Austria	Outbound				Flows considered predominantly legal				0.01bn
	Inbound								
Others									0.07bn
Total									**0.11bn**

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				Flows considered predominantly legal				0.05bn
	Inbound								
Hungary	Outbound				Flows considered predominantly legal				0.01bn
	Inbound								
Poland	Outbound				Flows considered predominantly legal				0.01bn
	Inbound								
Austria	Outbound				Flows considered predominantly legal				0.01bn
	Inbound								
Others									0.03bn
Total									**0.11bn**

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 – 2021 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)**
Romania	Outbound	Flows considered predominately legal							0.06bn
	Inbound								
Croatia	Outbound	Flows considered predominately legal							0.06bn
	Inbound								
Austria	Outbound	0.10m	82%	20%	0.02m	40	800	0.01bn	0.02bn
	Inbound	0.16m	83%	24%	0.03m	2	40	0.01bn	
Italy	Outbound	Flows considered predominately legal							0.01bn
	Inbound								
Others									0.04bn
Total									**0.19bn**

Spain									
Country		**# of border crossings**	**Population 18+**	**Smoking prevalence**	**Smoker trips**	**Packs per trip**	**# of cigarettes**	**ND(L) volume**	**Total ND(L)**
Gibraltar	Outbound	Figure based on tourism statistics and border region consumption analysis							0.93bn
	Inbound								
Andorra	Outbound	Figure based on tourism statistics and border region consumption analysis							0.11bn
	Inbound								
Canary Islands	Outbound	Flows considered predominately legal							0.11bn
	Inbound								
Portugal	Outbound	Flows considered predominately legal							0.03bn
	Inbound								
Others									0.18bn
Total									**1.36bn**

Sweden									
Country		**# of border crossings**	**Population 18+**	**Smoking prevalence**	**Smoker trips**	**Packs per trip**	**# of cigarettes**	**ND(L) volume**	**Total ND(L)**
Poland	Outbound	0.26m	79%	11%	0.02m	40	800	0.02bn	0.02bn
	Inbound	0.04m	82%	22%	0.01m	2	40	0.00bn	
Denmark	Outbound	Flows considered predominantly legal							0.01bn
	Inbound								
Germany	Outbound	Flows considered predominantly legal							0.00bn
	Inbound								
Turkey	Outbound	0.23m	79%	11%	0.02m	10	200	0.00bn	0.00bn
	Inbound	0.01m	73%	29%	0.00m	2	40	0.00bn	
Others									0.05bn
Total									**0.08bn**

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 – 2021 non-domestic legal major flow calculations

UK[a]									
Country		# of border crossings	Population 18+	Smoking prevalence	Smoker trips	Packs per trip	# of cigarettes	ND(L) volume	Total ND(L)
Poland	Outbound	2.32m	79%	19%	0.35m	40	800	0.28bn	0.38bn
	Inbound	0.70m	82%	23%	0.13m	37	740	0.10bn	
Greece	Outbound	Figure based on tourism statistics and border region consumption analysis							0.12bn
	Inbound								
Spain	Outbound	Flows considered predominantly legal							0.10bn
	Inbound								
Romania	Outbound	0.07m	79%	13%	0.01m	40	800	0.01bn	0.09bn
	Inbound	0.51m	81%	27%	0.11m	40	800	0.09bn	
Others									0.47bn
Total									**1.16bn**

Norway									
Country		# of border crossings	Population 18+	Smoking prevalence	Smoker trips	Packs per trip	# of cigarettes	ND(L) volume	Total ND(L)
Sweden	Outbound	Flows considered predominantly legal							0.09bn
	Inbound								
Denmark	Outbound	Flows considered predominantly legal							0.01bn
	Inbound								
Poland	Outbound	0.40m	79%	11%	0.04m	10	200	0.01bn	0.01bn
	Inbound	0.04m	82%	22%	0.01m	2	40	0.00bn	
Germany	Outbound	0.20m	79%	11%	0.02m	10	200	0.00bn	0.01bn
	Inbound	0.24m	84%	20%	0.04m	2	40	0.00bn	
Others									0.11bn
Total									**0.22bn**

Switzerland									
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							0.10bn
	Inbound								
Italy	Outbound	Flows considered predominantly legal							0.07bn
	Inbound								
France	Outbound	Flows considered predominantly legal							0.07bn
	Inbound								
Spain	Outbound	0.86m	82%	22%	0.16m	10	200	0.03bn	0.03bn
	Inbound	0.11m	83%	25%	0.02m	2	40	0.00bn	
Others									0.30bn
Total									**0.57bn**

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 accounted for almost a quarter of total C&C volumes in the EU

Illicit Whites are defined as

— cigarettes which are usually manufactured legally in one country or market but which the evidence suggests have been smuggled across borders to the destination market where they have limited or no legal distribution and are sold without the payment of tax

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

— Non-domestic volumes were compared to LDS on a country by country basis to estimate the non-domestic share of total consumption

— KPMG conservatively assumed that where non-domestic volumes of a brand represented over 99% of total consumption, it is classified as an Illicit Whites brand

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

An Illicit Whites brand's overall volume is the total of only those 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 participants, we cannot assess whether these flows are genuine or counterfeit

Illustrative example

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	-

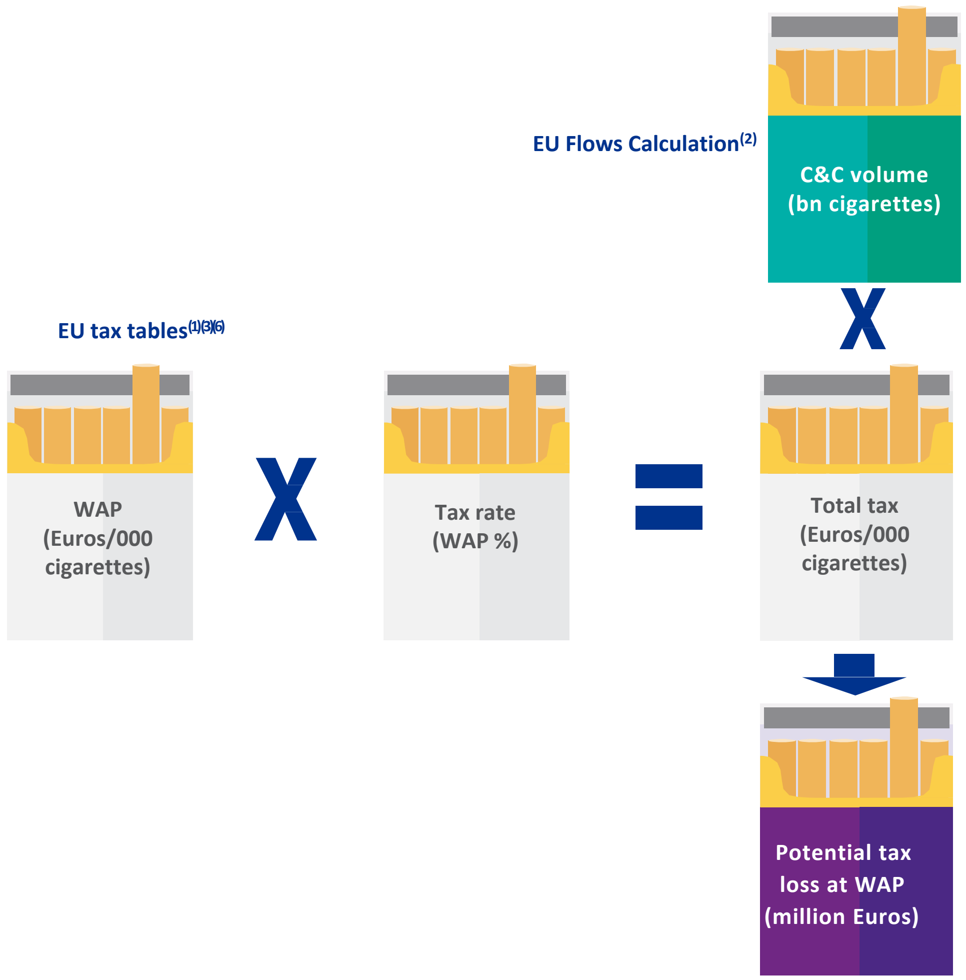
Classified as an Illicit White in country 1, 2 and 3 where there is limited or no evidence of legal distribution

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 from July 2021 were used to estimate the Weighted Average Price[a] for cigarettes within the EU27
  - 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 €10.4bn in 2021. This was an increase versus prior year (2020: €8.5bn)[1][2]
- KPMG also estimated tax losses for Norway, Switzerland and the UK using the tax rates in these countries and WAP available through public sources[1][3][4][5]
- Tax losses are calculated based on sales volumes and are not reflective of any other factors, like affordability or price elasticity and are always reported at what would have been lost if the C&C had been purchased legally



Note: (a) WAP denotes Weighted Average Price per pack of 20 cigarettes

Sources: (1) For EU countries, tax rate and WAP from EC Excise Duty tables (Part III – Manufactured Tobacco) as at July 2021; (2) KPMG EU Flows Calculation and analysis of data sources provided by manufacturers; (3) For UK, Norway and Switzerland, tax rate and WAP from GFIS systems as on October 2021; (4) Norway Weighted Average Price, Nielsen Off-take data; (5) Tax rate, The Norwegian Tax Administration, 2020; (6) For other countries, WHO 2020 most sold brand prices extrapolated for 2021 using 2020-21 CAGR from Euromonitor

Appendices

Limitations of Results

The below noted limitations of results apply across 2017 to 2021

Limitation	Detail	Impact	Adjustment
Geographic coverage	— We have limited our geographic coverage in some markets where the inclusion of additional territories would impact confidence levels in the ND(L) research — In some instances (e.g. Greek islands), LDS data is also insufficient for the purposes of this study	— Spanish results only cover mainland Spain and do not include the Canary Islands, Balearic Islands or Ceuta & Melilla — French results cover only mainland France and do not include Corsica. As a result, LDS from Corsica is not included in France consumption figures — Portuguese results only cover mainland Portugal and do not include Madeira or the Azores — Greek results only cover mainland Greece and do not include the Greek islands — UK results only cover Great Britain and Northern Ireland and do not include the Channel Islands or Isle of Man	Not adjusted for
Non-major manufacturer Counterfeit	— Empty pack survey results do not identify Counterfeit packs that have been made by manufacturers other than British American Tobacco, Imperial Tobacco, Japan Tobacco International, and Philip Morris International as only the manufacturer/ trademark owner can confirm whether their brand pack is genuine[a]	— In some instances, the volume of legal domestic consumption may be overstated where domestic Counterfeit variants exist, leading to corresponding understatements of C&C volumes for some brands (although the impact is likely to be minimal) — We cannot distinguish non-major manufacturer brand Counterfeit (non-domestic variants) and Contraband product, although this will not impact the overall volume of C&C — Illicit Whites volumes may include Counterfeit	Not adjusted for
Non-EU outflows	— In order to calculate consumption, we have assumed no outflows of LDS outside the 30 countries of study	— Non-EU LDS outflows are not considered to be material for all countries of study except Luxembourg. This is because of the high prices relative to other parts of the world and Duty Free import restrictions. This is supported by market discussions and non-EU empty pack surveys — For Luxembourg, additional research by industry participants indicates that there is a significant outflow of cigarettes to non-EU markets and has been adjusted for	Not adjusted for except Luxembourg

Note: (a) Phillip Morris International Counterfeit data only is included for Germany in 2018-2021

Limitations of Results

Source	Limitation
Empty pack survey	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: — The sample is more heavily weighted towards populous, urban areas and therefore may not be fully representative of consumption habits in rural regions — Homes and workplaces or public spaces are not covered 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 190 for details)[a] 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 — 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 — 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 — COVID-19 related lockdowns and trave restrictions have impacted the timings of empty pack surveys in some markets in the 2020 and 2021 results. To seek to ensure comparability of results, we have analysed monthly LDS figures, consumption trends, visitor data and other data sources to make adjustments where appropriate. Refer to the 2020 results version of this Report for further details on the estimated impact of COVID-19 on the results and our methodology, and the empty pack survey adjustments pages in the methodology section of this Report (pages 185-189). 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 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 — Where data suggests a sampling or data capture error may have occurred at a specific location, we adjust the results in our analysis accordingly In some specific instances it is not possible to differentiate between Duty Free and Duty Paid variants from the empty packs collected — 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 — The study also does not take account of various duty free loopholes that exist for some travel within the EU

Notes: (a) 120,000 weighted packs were collected as part of the YBS in Germany. Only a summarised version of the file with 33,226 data lines was provided to KPMG

Limitations of Results

Source	Limitation
LDS	— 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 — 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
ND(L)	— From 2014, we have used business and tourism travel data from sources such as the UN World Tourism Organization (UNWTO) and national statistics offices to calculate the number of trips made — 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 — This may over-weight ND(L) volume as a proportion of the total non-domestic flow — In some markets consumer research help us to overcome some of these limitations, such as the number of packs purchased per trip — We assume that traveller demographics are the same as the domestic population. It is likely that travellers will be older on average, with fewer under 18s. This may under-estimate ND(L) — In order to estimate the ND(L) brand split, we used brand shares from the empty pack surveys. Refer to page 192 for details

Empty pack survey results by country

Empty pack survey results for EU27 countries, UK, Norway and Switzerland, 2018-21[a]

EU27 countries, UK, Norway and Switzerland	Number of packs collected				ND incidence in empty pack survey[b]			
Region	2018	2019	2020	2021	2018	2019	2020	2021
Austria	13,000	13,000	6,500	6,500	14%	16%	11%	10%
Belgium	5,600	5,600	2,800	5,600	14%	17%	12%	10%
Bulgaria	26,000	23,200	23,200	23,200	5%	3%	2%	2%
Croatia	3,000	3,000	3,000	3,000	7%	8%	7%	7%
Cyprus	1,000	1,000	1,000	1,000	10%	16%	9%	16%
Czech Republic	21,004	21,004	21,004	20,423	9%	9%	3%	8%
Denmark	5,500	5,000	5,000	10,000	7%	10%	5%	10%
Estonia	9,900	6,600	3,300	6,600	13%	11%	9%	12%
Finland	6,000	5,000	5,000	5,000	17%	16%	12%	16%
France	46,000	46,000	46,000	46,000	27%	28%	29%	34%
Germany	120,000	119,999	120,000	120,000	18%	19%	17%	14%
Greece	14,000	12,000	18,000	18,000	25%	24%	25%	25%
Hungary	19,902	17,240	17,240	17,241	9%	10%	5%	6%
Ireland	5,000	5,000	5,000	5,000	29%	34%	22%	20%
Italy	30,099	40,000	30,000	40,000	7%	5%	4%	3%
Latvia	14,700	9,800	4,900	9,800	21%	17%	20%	17%
Lithuania	19,200	11,600	5,800	11,600	19%	20%	22%	21%
Luxembourg	400	400	200	400	8%	11%	12%	6%
Malta	1,000	1,000	1,000	1,000	11%	10%	8%	12%
Netherlands	21,000	14,000	7,000	14,000	20%	19%	16%	27%
Poland	51,000	37,500	25,000	50,000	12%	10%	9%	6%
Portugal	3,000	3,000	3,000	3,000	6%	8%	5%	7%
Romania	7,581	15,125	12,646	10,049	16%	13%	8%	8%
Slovakia	6,400	5,000	5,000	5,000	9%	6%	4%	4%
Slovenia	3,000	3,000	3,000	3,000	19%	15%	8%	14%
Spain	30,000	30,000	15,000	30,000	9%	8%	9%	8%
Sweden	10,000	10,000	10,000	10,000	13%	16%	10%	9%
UK	12,700	12,700	12,700	25,400	35%	27%	24%	22%
Norway	10,000	5,000	5,000	5,000	44%	38%	23%	22%
Switzerland	5,600	5,600	5,600	5,600	12%	14%	9%	9%
Total	**521,586**	**487,368**	**422,890**	**511,413**	**16%**	**18%**	**15%**	**13%**

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, 2018-21[(1)(2)(3)(a)]

Austria	Number of packs collected				ND incidence in empty pack survey[(b)]			
Region	**2018**	**2019**	**2020**	**2021**	**2018**	**2019**	**2020**	**2021**
Burgenland	440	440	220	220	16%	14%	11%	7%
Kärnten	850	850	425	425	21%	23%	14%	11%
Niederösterreich	2,484	2,484	1,242	1,242	13%	14%	13%	11%
Oberösterreich	2,178	2,178	1,089	1,089	15%	15%	10%	7%
Salzburg	816	816	408	408	12%	16%	9%	12%
Steiermark	1,854	1,854	927	927	12%	15%	11%	13%
Tirol	1,104	1,104	552	552	9%	12%	5%	6%
Vorarlberg	574	574	287	287	13%	16%	4%	6%
Wien	2,700	2,700	1,350	1,350	18%	20%	11%	11%
Total	**13,000**	**13,000**	**6,500**	**6,500**	**14%**	**16%**	**11%**	**10%**

Belgium	Number of packs collected				ND incidence in empty pack survey[(b)]			
Region	**2018**	**2019**	**2020**	**2021**	**2018**	**2019**	**2020**	**2021**
Aalst	200	200	100	200	15%	11%	9%	4%
Anderlecht	240	240	120	240	17%	15%	17%	15%
Antwerp	1,100	1,100	550	1,100	16%	15%	12%	9%
Arlon	160	160	80	160	14%	47%	74%	45%
Brugge	240	240	120	240	10%	20%	12%	9%
Brussels	380	380	190	380	12%	25%	8%	8%
Charleroi	460	460	230	460	9%	16%	17%	16%
Genk	200	200	100	200	10%	13%	9%	22%
Ghent	500	500	250	500	15%	18%	12%	7%
Hasselt	200	200	100	200	21%	18%	11%	13%
Kortrijk	200	200	100	200	11%	14%	15%	5%
Leuven	200	200	100	200	15%	15%	5%	5%
Liege	440	440	220	440	12%	17%	7%	6%
Mechelen	200	200	100	200	13%	16%	7%	7%
Mons	200	200	100	200	10%	12%	11%	5%
Namur	240	240	120	240	10%	14%	16%	15%
Sambreville	160	160	80	160	9%	15%	2%	17%
Schaerbeek	280	280	140	280	22%	14%	8%	8%
Total	**5,600**	**5,600**	**2,800**	**5,600**	**14%**	**17%**	**12%**	**10%**

Note: (a) Only base survey data in the empty pack surveys have been summarised in the tables, i.e. 'focus' samples designed to investigate specific issues have been excluded as they do not form part of the national statistically representative sample; (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, 2018-2021

(2) MS Intelligence empty pack surveys, 2018-2019

(3) WSPM empty pack surveys, 2020-21

Empty pack survey results by country

Bulgaria results by region, 2018-21[1][a]

Bulgaria	Number of packs collected				ND incidence in empty pack survey[b]			
Region	**2018**	**2019**	**2020**	**2021**	**2018**	**2019**	**2020**	**2021**
Blagoevgrad	1,000	600	600	600	7%	5%	2%	3%
Burgas	1,332	1,332	1,332	1,332	4%	3%	2%	2%
Dobric	600	600	600	600	5%	3%	5%	2%
Gabrovo	600	600	600	600	3%	1%	2%	1%
Grad Sofia	7,056	7,056	7,056	7,056	4%	3%	2%	2%
Haskovo	2,324	1,524	1,524	1,524	11%	5%	2%	1%
Jambol	600	600	600	600	4%	2%	3%	1%
Kjustendil	1,000	-	-	-	8%	-	-	-
Lovec	672	672	672	672	10%	5%	4%	1%
Montana	600	-	-	-	5%	-	-	-
Pazardzik	600	600	600	600	5%	4%	3%	4%
Pernik	600	600	600	600	13%	6%	2%	4%
Plovdiv	2,828	2,828	2,828	2,828	7%	5%	2%	3%
Ruse	984	984	984	984	3%	3%	3%	1%
Sliven	600	600	600	600	3%	3%	3%	2%
Sumen	600	600	600	600	3%	2%	2%	2%
Varna	2,204	2,204	2,204	2,204	4%	3%	3%	2%
VelikoTarnovo	600	600	600	600	9%	6%	0%	1%
Vidin	600	600	600	600	9%	3%	3%	2%
Vratsa	600	600	600	600	3%	4%	3%	3%
Total	**26,000**	**23,200**	**23,200**	**23,200**	**5%**	**3%**	**2%**	**2%**

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, 2018-2021

Empty pack survey results by country

Croatia, Cyprus and Czech Republic results by region, 2018-21[(1)(2)(a)]

Croatia	Number of packs collected				ND incidence in empty pack survey[(b)]			
Region	**2018**	**2019**	**2020**	**2021**	**2018**	**2019**	**2020**	**2021**
Osijek	193	193	193	193	28%	18%	8%	3%
Pula	132	132	132	132	13%	6%	1%	8%
Rijeka	295	295	295	295	11%	2%	4%	5%
Sesvete	124	124	124	124	1%	10%	9%	2%
Slavonski Brod	123	123	123	123	39%	46%	19%	19%
Split	384	384	384	384	6%	5%	3%	3%
Zadar	164	164	164	164	6%	8%	2%	2%
Zagreb	1,585	1,585	1,585	1,585	2%	7%	9%	9%
Total	**3,000**	**3,000**	**3,000**	**3,000**	**7%**	**8%**	**7%**	**7%**

Cyprus	Number of packs collected				ND incidence in empty pack survey[(b)]			
Region	**2018**	**2019**	**2020**	**2021**	**2018**	**2019**	**2020**	**2021**
Larnaca	150	150	150	150	14%	16%	17%	17%
Limassol	300	300	300	300	7%	10%	4%	9%
Nicosia	400	400	400	400	10%	21%	11%	22%
Paphos	150	150	150	150	14%	19%	8%	8%
Total	**1,000**	**1,000**	**1,000**	**1,000**	**10%**	**16%**	**9%**	**16%**

Czech Republic	Number of packs collected				ND incidence in empty pack survey[(b)]			
Region	**2018**	**2019**	**2020**	**2021**	**2018**	**2019**	**2020**	**2021**
Jihocesky Kraj	724	724	724	702	7%	5%	2%	5%
Jihomoravsky Kraj	2,148	2,148	2,148	2,099	7%	10%	3%	7%
Karlovarsky Kraj	300	300	300	275	6%	9%	5%	13%
Kralovehradecky Kraj	526	526	526	509	7%	3%	3%	6%
Liberecky Kraj	1,034	1,034	1,034	966	10%	8%	4%	12%
Moravsoslezsky Kraj	3,332	3,332	3,332	3,234	13%	14%	3%	14%
Olomoucky Kraj	1,062	1,062	1,062	1,035	10%	7%	3%	8%
Pardubicky Kraj	510	510	510	505	5%	3%	3%	5%
Plzensky Kraj	948	948	948	909	8%	8%	2%	8%
Praha	7,114	7,114	7,114	7,000	8%	8%	3%	5%
Stredocesky Kraj	636	636	636	618	6%	5%	1%	4%
Ustecky Kraj	1,750	1,750	1,750	1,673	8%	6%	4%	12%
Vysocina	496	496	496	483	6%	8%	1%	7%
Zlinsky Kraj	424	424	424	415	8%	5%	3%	6%
Total	**21,004**	**21,004**	**21,004**	**20,423**	**9%**	**9%**	**3%**	**8%**

Note: (a) Only base survey data in the empty pack surveys have been summarised in the tables, i.e. 'focus' samples designed to investigate specific issues have been excluded as they do not form part of the national statistically representative sample; (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, 2018-2021
(2) Ultex empty pack surveys, 2018-2021

Empty pack survey results by country

Denmark and Estonia results by region, 2018-21[(1)(2)(3)(a)]

Denmark	Number of packs collected				ND incidence in empty pack survey[(b)]			
Region	**2018**	**2019**	**2020**	**2021**	**2018**	**2019**	**2020**	**2021**
Capital Region	2,612	2,612	2,612	5,224	8%	12%	4%	10%
Mid Jutland	1,211	1,011	1,011	2,022	6%	10%	6%	8%
North Jutland	422	422	422	844	9%	5%	4%	13%
South Denmark	1,105	955	955	1,910	5%	8%	8%	10%
Zealand	150	-	-	-	3%	-	-	-
Total	**5,500**	**5,000**	**5,000**	**10,000**	**7%**	**10%**	**5%**	**10%**

Estonia	Number of packs collected				ND incidence in empty pack survey[(b)]			
Region	**2018**	**2019**	**2020**	**2021**	**2018**	**2019**	**2020**	**2021**
Har	4,800	3,200	1,600	3,200	13%	10%	10%	10%
Ida	1,650	1,100	550	1,100	15%	14%	9%	20%
Lääne	300	200	100	200	6%	12%	1%	6%
Lvi	300	200	100	200	11%	9%	4%	15%
Pär	450	300	150	300	10%	11%	7%	11%
Saa	300	200	100	200	13%	2%	4%	5%
Tar	1,200	800	400	800	12%	12%	11%	13%
Val	300	200	100	200	26%	30%	14%	13%
Vil	300	200	100	200	21%	6%	3%	8%
Võr	300	200	100	200	18%	12%	6%	5%
Total	**9,900**	**6,600**	**3,300**	**6,600**	**13%**	**11%**	**9%**	**12%**

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, 2018-2019

(2) Nielsen empty pack surveys, 2018-2021

(3) WSPM empty pack survey, 2020-21

Empty pack survey results by country

Finland and France results by region, 2018-21[(1)(2)(a)]

Finland	Number of packs collected				ND incidence in empty pack survey[(b)]			
Region	**2018**	**2019**	**2020**	**2021**	**2018**	**2019**	**2020**	**2021**
Etela-Karjala	500	-	-	-	26%	-	-	-
Keski-Suomi	315	315	315	315	11%	7%	4%	20%
Kymenlaakso	193	193	193	193	16%	16%	5%	11%
Lappi	200	-	-	-	10%	-	-	-
Paijat-Hame	271	271	271	271	12%	11%	20%	14%
Pirkanmaa	517	517	517	517	9%	16%	7%	14%
Pohjois-Karjala	300	-	-	-	16%	-	-	-
Pohjois-Savo	267	267	267	267	9%	6%	11%	14%
Prohiois-Pohianmaa	454	454	454	454	5%	7%	4%	15%
Uusimaa	2,558	2,558	2,558	2,558	22%	20%	16%	17%
Varsinais-Suomi	425	425	425	425	12%	19%	12%	21%
Total	**6,000**	**5,000**	**5,000**	**5,000**	**17%**	**16%**	**12%**	**16%**

France	Number of packs collected				ND incidence in empty pack survey[(b)]			
Region	**2018**	**2019**	**2020**	**2021**	**2018**	**2019**	**2020**	**2021**
Alsace Lorraine Champagne Ardennes	4,000	4,000	4,000	4,000	32%	36%	29%	33%
Aquitaine	2,456	2,456	2,456	2,456	26%	26%	29%	34%
Auvergne Limousin	1,500	1,500	1,500	1,500	21%	16%	23%	33%
Auvergne-Rhône-Alpes	4,760	4,760	4,760	4,760	25%	25%	26%	33%
Basse Haute Normandie	2,804	2,804	2,804	2,804	18%	19%	27%	33%
Bourgogne-Franche-Comté	3,200	3,200	3,200	3,200	19%	22%	28%	33%
Bretagne	3,600	3,600	3,600	3,600	17%	15%	25%	29%
Centre	2,000	2,000	2,000	2,000	16%	18%	25%	39%
Île-de-France	7,200	7,200	7,200	7,200	27%	33%	29%	33%
Languedoc-Roussillon-Midi-Pyrénées	3,200	3,200	3,200	3,200	37%	37%	37%	33%
Nord Picardie	4,396	4,396	4,396	4,396	36%	34%	31%	35%
Pays De Loire Poitou Charentes	3,284	3,284	3,284	3,284	20%	17%	21%	34%
Provence-Alpes-Côte d'Azur	3,600	3,600	3,600	3,600	30%	30%	33%	38%
Total	**46,000**	**46,000**	**46,000**	**46,000**	**27%**	**28%**	**29%**	**34%**

Note: (a) Only base survey data in the empty pack surveys have been summarised in the tables, i.e. 'focus' samples designed to investigate specific issues have been excluded as they do not form part of the national statistically representative sample; (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, 2018-2019

(2) WSPM empty pack surveys, 2019-2021

Empty pack survey results by country

Germany and Greece results by region, 2018-21[(1)(2)(a)]

Germany	Number of packs collected[(c)]				ND incidence in empty pack survey[(b)]			
Region	**2018**	**2019**	**2020**	**2021**	**2018**	**2019**	**2020**	**2021**
Lower Saxony	19,407	20,182	20,411	20,527	10%	11%	9%	7%
North Rhine-Westphalia	25,532	25,737	24,222	26,070	10%	11%	10%	8%
Rhineland-Palatinate	15,612	15,206	16,599	15,051	10%	12%	10%	10%
Baden-Württemberg	15,968	14,508	15,248	14,651	9%	12%	10%	9%
Bavaria	19,488	19,077	19,372	18,656	22%	24%	22%	16%
Berlin	5,232	5,779	-	-	46%	45%	-	-
Brandenburg	9,356	10,918	15,121	16,072	29%	33%	39%	30%
Saxony	9,404	8,592	9,026	8,972	45%	40%	33%	28%
Total	**120,000**	**119,999**	**120,000**	**120,000**	**18%**	**19%**	**17%**	**14%**

Greece	Number of packs collected				ND incidence in empty pack survey[(b)]			
Region	**2018**	**2019**	**2020**	**2021**	**2018**	**2019**	**2020**	**2021**
Attica	4,600	4,600	6,900	6,900	27%	27%	27%	28%
Central Greece	400	400	600	600	23%	18%	19%	20%
Central Macedonia	3,000	2,400	3,600	3,600	25%	23%	25%	25%
Crete	1,000	1,000	1,500	1,500	19%	20%	23%	25%
East Macedonia/Thrace	800	-	-	-	23%	-	-	-
Epirus	600	400	600	600	24%	17%	22%	20%
Ionian Islands	400	400	600	600	22%	27%	27%	17%
South Aegean	400	400	600	600	20%	14%	21%	20%
Thessaly	1,200	1,200	1,800	1,800	23%	24%	28%	27%
West Greece	1,200	1,200	1,800	1,800	27%	23%	24%	19%
West Macedonia	400	-	-	-	24%	-	-	-
Total	**14,000**	**12,000**	**18,000**	**18,000**	**25%**	**24%**	**25%**	**25%**

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, 2018-2021

(2) Nielsen empty pack surveys, 2018-2021

Empty pack survey results by country

Italy and Latvia results by region, 2018-21[(1)(2)(a)]

Italy	Number of packs collected				ND incidence in empty pack survey[(b)]			
Region	**2018**	**2019**	**2020**	**2021**	**2018**	**2019**	**2020**	**2021**
Abruzzo	540	720	540	720	3%	3%	1%	1%
Calabria	660	880	660	880	1%	2%	1%	1%
Campania	2,790	3,720	2,790	3,720	26%	16%	12%	11%
Emilia Romagna	2,910	3,880	2,910	3,880	4%	3%	4%	2%
Friuli Venezia Giulia	480	640	480	640	14%	27%	24%	26%
Lazio	5,490	7,320	5,490	7,320	8%	5%	4%	1%
Liguria	1,260	1,680	1,260	1,680	4%	2%	1%	1%
Lombardia	3,360	4,480	3,360	4,480	5%	5%	3%	3%
Marche	549	600	450	600	2%	3%	2%	2%
Piemonte	2,190	2,920	2,190	2,920	6%	2%	1%	1%
Puglia	2,220	2,960	2,220	2,960	6%	5%	3%	3%
Sicilia	3,630	4,840	3,630	4,840	6%	4%	2%	1%
Toscana	1,440	1,920	1,440	1,920	3%	3%	1%	1%
Trentino Alto Adige	300	400	300	400	3%	6%	6%	6%
Umbria	540	720	540	720	6%	1%	0%	1%
Veneto	1,740	2,320	1,740	2,320	7%	5%	2%	2%
Total	**30,099**	**40,000**	**30,000**	**40,000**	**7%**	**5%**	**4%**	**3%**

Latvia	Number of packs collected				ND incidence in empty pack survey[(b)]			
Region	**2018**	**2019**	**2020**	**2021**	**2018**	**2019**	**2020**	**2021**
Kurzeme	1,800	1,200	600	1,200	18%	11%	21%	14%
Latgale	2,100	1,400	700	1,400	36%	26%	31%	32%
Pieriga	2,100	1,400	700	1,400	22%	18%	21%	15%
Riga	6,000	4,000	2,000	4,000	20%	16%	19%	15%
Vidzeme	1,200	800	400	800	15%	7%	12%	21%
Zemgale	1,500	1,000	500	1,000	17%	15%	17%	13%
Total	**14,700**	**9,800**	**4,900**	**9,800**	**21%**	**17%**	**20%**	**17%**

Note: (a) Only base survey data in the empty pack surveys have been summarised in the tables, i.e. 'focus' samples designed to investigate specific issues have been excluded as they do not form part of the national statistically representative sample; (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, 2019-2021

(2) Nielsen empty pack surveys, 2018-2021

Empty pack survey results by country

Lithuania, Luxembourg and Malta results by region, 2018-21[(1)(2)(3)(a)]

Lithuania	Number of packs collected				ND incidence in empty pack survey[(b)]			
Region	2018	2019	2020	2021	2018	2019	2020	2021
Alytus	1,200	600	300	600	25%	23%	25%	24%
Kaunas	4,500	2,800	1,400	2,800	21%	23%	26%	21%
Klaipeda	2,400	1,600	800	1,600	11%	17%	18%	20%
Marijampole	900	400	200	400	24%	23%	18%	19%
Panevezys	1,200	600	300	600	24%	26%	22%	24%
Siauliai	1,200	800	400	800	20%	21%	29%	19%
Taurage	300	200	100	200	15%	22%	25%	23%
Telsiai	1,200	800	400	800	13%	11%	16%	19%
Utena	900	600	300	600	13%	24%	12%	14%
Vilnius	5,400	3,200	1,600	3,200	19%	19%	19%	21%
Total	**19,200**	**11,600**	**5,800**	**11,600**	**19%**	**20%**	**22%**	**21%**

Luxembourg	Number of packs collected				ND incidence in empty pack survey[(b)]			
Region	2018	2019	2020	2021	2018	2019	2020	2021
Esch-Sur-Alzette	160	160	80	160	7%	13%	21%	6%
Luxembourg	240	240	120	240	9%	10%	5%	6%
Total	**400**	**400**	**200**	**400**	**8%**	**11%**	**12%**	**6%**

Malta	Number of packs collected				ND incidence in empty pack survey[(b)]			
Region	2018	2019	2020	2021	2018	2019	2020	2021
Northern	350	350	350	350	10%	10%	7%	12%
Northern Harbour	550	550	550	550	10%	10%	9%	11%
Southern Harbour	100	100	100	100	18%	10%	5%	10%
Total	**1,000**	**1,000**	**1,000**	**1,000**	**11%**	**10%**	**8%**	**12%**

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, 2018-2021
(2) MS Intelligence empty pack surveys, 2018-2019
(3) WSPM empty pack surveys, 2020-2021

Empty pack survey results by country

Netherlands, Poland results by region, 2018-21[(1)(2)(3)(a)]

Netherlands	Number of packs collected				ND incidence in empty pack survey[(b)]			
Region	**2018**	**2019**	**2020**	**2021**	**2018**	**2019**	**2020**	**2021**
Drenthe	303	202	101	202	21%	16%	17%	26%
Flevoland	756	504	252	504	21%	29%	15%	23%
Friesland	498	332	166	332	27%	15%	11%	28%
Gelderland	1,626	1,084	542	1,084	18%	11%	15%	27%
Groningen	546	364	182	364	17%	6%	9%	17%
Limburg	1,128	752	376	752	22%	15%	12%	45%
North Brabant	2,790	1,860	930	1,860	32%	15%	16%	40%
North Holland	4,635	3,090	1,545	3,090	18%	24%	16%	21%
Overijssel	1,488	992	496	992	14%	20%	19%	29%
South Holland	5,916	3,944	1,972	3,994	17%	20%	16%	24%
Utrecht	1,314	876	438	876	14%	22%	20%	25%
Total	**21,000**	**14,000**	**7,000**	**14,000**	**20%**	**19%**	**16%**	**27%**

Poland	Number of packs collected				ND incidence in empty pack survey[(b)]			
Region	**2018**	**2019**	**2020**	**2021**	**2018**	**2019**	**2020**	**2021**
Dolnoslaskie	3,900	3,000	2,000	4,000	9%	8%	9%	4%
Kujawsko-Pomorskie	2,775	2,775	1,850	3,700	8%	9%	8%	4%
Lodzkie	3,375	2,475	1,650	3,300	17%	13%	12%	8%
Lubelskie	2,550	1,200	800	1,600	12%	8%	6%	4%
Lubuskie	1,350	900	600	1,200	8%	6%	5%	3%
Malopolskie	2,925	2,925	1,950	3,900	3%	3%	3%	5%
Mazowieckie	8,100	6,750	4,500	9,000	15%	15%	16%	8%
Opolskie	1,800	450	300	600	3%	5%	2%	3%
Podkarpackie	2,850	600	400	800	16%	8%	16%	10%
Podlaskie	1,425	975	650	1,300	34%	27%	18%	16%
Pomorskie	2,325	2,325	1,550	3,100	7%	6%	5%	3%
Slaskie	7,350	7,350	4,900	9,800	11%	8%	8%	5%
Swietokrzyskie	1,575	675	450	900	4%	4%	2%	2%
Warminsko-Mazurskie	2,400	1,050	700	1,400	32%	23%	13%	7%
Wielkopolskie	4,050	2,250	1,500	3,000	1%	1%	5%	3%
Zachodniopomorskie	2,250	1,800	1,200	2,400	7%	7%	9%	2%
Total	**51,000**	**37,500**	**25,000**	**50,000**	**12%**	**10%**	**9%**	**6%**

Note: (a) Only base survey data in the empty pack surveys have been summarised in the tables, i.e. 'focus' samples designed to investigate specific issues have been excluded as they do not form part of the national statistically representative sample; (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, 2018-2020
(2) Almares Research empty pack surveys, 2018-2021
(3) WSPM Group empty pack surveys, 2021

Empty pack survey results by country

Portugal, Romania and Slovakia results by region, 2018-21[(1)(2)(3)(a)]

Portugal	Number of packs collected				ND incidence in empty pack survey[(b)]			
Region	**2018**	**2019**	**2020**	**2021**	**2018**	**2019**	**2020**	**2021**
Center	200	200	200	200	0%	2%	0%	0%
Lisboa	1,900	1,900	1,900	1,900	4%	6%	3%	3%
North	900	900	900	900	10%	13%	9%	16%
Total	**3,000**	**3,000**	**3,000**	**3,000**	**6%**	**8%**	**5%**	**7%**

Romania	Number of packs collected				ND incidence in empty pack survey[(b)]			
Region	**2018**	**2019**	**2020**	**2021**	**2018**	**2019**	**2020**	**2021**
Bucharest	804	1,592	1,398	1,078	7%	5%	4%	4%
Caras-Severin	-	-	296	154	-	-	4%	6%
Center	756	1,427	1,214	1,008	2%	1%	1%	1%
North-East	1,441	2,683	2,349	1,883	37%	31%	21%	23%
North-West	967	1,979	1,743	1,430	18%	12%	11%	12%
Satu Mare	-	-	35	1,410	-	-	29%	4%
South	867	1,754	1,642	1,410	3%	4%	4%	7%
South-East	1,074	2,267	1,659	1,250	10%	10%	5%	6%
South-West	818	1,700	1,357	1,065	16%	20%	10%	11%
West	854	1,723	953	771	25%	19%	9%	4%
Total	**7,581**	**15,125**	**12,646**	**10,049**	**16%**	**13%**	**8%**	**9%**

Slovakia	Number of packs collected				ND incidence in empty pack survey[(b)]			
Region	**2018**	**2019**	**2020**	**2021**	**2018**	**2019**	**2020**	**2021**
Banskobystricky Kraj	550	450	450	450	4%	3%	2%	3%
Bratislavsky Kraj	1,200	1,200	1,200	1,200	3%	3%	1%	2%
Kosicky Kraj	1,300	800	800	800	15%	11%	5%	5%
Nitriansky Kraj	850	650	650	650	10%	8%	5%	7%
Presovsky Kraj	1,100	600	600	600	13%	5%	5%	8%
Trenciansky Kraj	400	400	400	400	6%	4%	10%	4%
Trnavsky Kraj	400	300	300	300	3%	8%	9%	3%
Zilinsky Kraj	600	600	600	600	5%	2%	2%	4%
Total	**6,400**	**5,000**	**5,000**	**5,000**	**9%**	**6%**	**4%**	**4%**

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, 2018-2021

(2) Novel Study, 2018-2021

(3) Nielsen empty pack surveys, 2018-2021

Empty pack survey results by country

Slovenia and Spain results by region, 2018-21[(1)(2)(3)(a)]

Slovenia	Number of packs collected				ND incidence in empty pack survey[(b)]			
Region	**2018**	**2019**	**2020**	**2021**	**2018**	**2019**	**2020**	**2021**
Celje	210	210	210	210	32%	14%	9%	9%
Koper	139	139	139	139	20%	15%	5%	22%
Kranj	208	208	208	208	18%	20%	7%	25%
Ljubljana	1,539	1,539	1,539	1,539	14%	15%	8%	9%
Maribor	531	531	531	531	15%	17%	9%	22%
Novo Mesto	130	130	130	130	35%	12%	3%	19%
Ptuj	101	101	101	101	38%	10%	5%	18%
Velenje	142	142	142	142	47%	13%	7%	17%
Total	**3,000**	**3,000**	**3,000**	**3,000**	**19%**	**15%**	**8%**	**14%**

Spain	Number of packs collected				ND incidence in empty pack survey[(b)]			
Region	**2018**	**2019**	**2020**	**2021**	**2018**	**2019**	**2020**	**2021**
Andalucia	5,176	5,176	2,588	5,176	31%	29%	36%	32%
Aragon	1,170	1,170	585	1,170	2%	2%	1%	1%
Asturias	858	858	429	858	1%	2%	0%	1%
Basque Country	1,534	1,534	767	1,534	3%	2%	2%	2%
Cantabria	304	304	152	304	1%	2%	2%	2%
CastillaY Leon	1,320	1,320	660	1,320	2%	2%	0%	6%
Castilla-La Mancha	296	296	148	296	3%	2%	3%	12%
Catalonia	5,394	5,394	2,697	5,394	6%	5%	4%	3%
Comunidad Valenciana	2,842	2,842	1,421	2,842	5%	2%	2%	1%
Extremadura	258	258	129	258	7%	1%	17%	25%
Galicia	1,130	1,130	565	1,130	2%	2%	2%	2%
La Rioja	262	262	131	262	0%	2%	2%	0%
Madrid	7,992	7,992	3,996	7,992	7%	6%	4%	4%
Murcia	1,126	1,126	563	1,126	4%	4%	1%	2%
Navarra	338	338	169	338	2%	1%	1%	2%
Total	**30,000**	**30,000**	**15,000**	**30,000**	**9%**	**8%**	**9%**	**8%**

Note: (a) Only base survey data in the empty pack surveys have been summarised in the tables, i.e. 'focus' samples designed to investigate specific issues have been excluded as they do not form part of the national statistically representative sample; (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, 2018-2019

(2) WSPM empty pack surveys, 2019-2021

(3) Ipsos empty pack surveys, 2018-2021

Empty pack survey results by country

Sweden results by region, 2018-21[1][a]

Sweden	Number of packs collected				ND incidence in empty pack survey[b]			
Region	2018	2019	2020	2021	2018	2019	2020	2021
Blekinge	150	150	150	150	8%	11%	10%	9%
Dalarna	150	150	150	150	6%	11%	5%	19%
Gastrikland	190	190	190	190	9%	17%	8%	6%
Halland	304	304	304	304	7%	13%	8%	11%
Jönköping	233	233	233	233	7%	13%	4%	10%
Kronoberg	154	154	154	154	5%	22%	5%	12%
Norrbotten	150	150	150	150	3%	9%	4%	5%
Örebro	272	272	272	272	13%	7%	10%	6%
Östergötland	500	500	500	500	8%	15%	10%	14%
Skåne	1,101	1,101	1,101	1,101	15%	15%	13%	12%
Smaland	150	150	150	150	17%	23%	12%	9%
Södermanland	316	316	316	316	10%	17%	10%	10%
Stockholm	3,284	3,284	3,284	3,284	20%	16%	11%	7%
Uppsala	355	355	355	355	7%	20%	9%	6%
Värmland	162	162	162	162	10%	15%	15%	9%
Västerbotten	359	359	359	359	5%	18%	2%	6%
Västernorrland	150	150	150	150	5%	16%	8%	5%
Västmanland	296	296	296	296	14%	12%	8%	7%
Västra Götaland	1,724	1,724	1,724	1,724	6%	15%	8%	11%
Total	**10,000**	**10,000**	**10,000**	**10,000**	**13%**	**16%**	**10%**	**9%**

Note: (a) Only base survey data in the empty pack surveys have been summarised in the tables, i.e. 'focus' samples designed to investigate specific issues have been excluded as they do not form part of the national statistically representative sample; (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) Global Vox Populi empty pack surveys, 2018-2021

Empty pack survey results by country

UK and Norway results by region, 2018-21[(1)(2)(3)(a)]

UK	Number of packs collected				ND incidence in empty pack survey[(b)]			
Region	**2018**	**2019**	**2020**	**2021**	**2018**	**2019**	**2020**	**2021**
East Midlands	1,000	1,000	1,000	2,000	42%	25%	23%	25%
East of England	1,100	1,000	1,100	2,200	31%	30%	34%	23%
London	1,500	1,500	1,500	3,000	30%	26%	20%	17%
North East England	500	500	500	1,000	64%	42%	40%	38%
North West England	1,299	1,299	1,299	2,598	34%	24%	24%	22%
Northern Ireland	500	500	500	1,000	50%	26%	14%	20%
Scotland	1,099	1,099	1,099	2,198	18%	19%	22%	20%
South East England	2,001	2,001	2,001	4,002	38%	27%	19%	19%
South West England	900	900	900	1,800	22%	27%	17%	18%
Wales	700	700	700	1,400	26%	27%	13%	12%
West Midlands	1,201	1,201	1,201	2,402	37%	25%	28%	26%
Yorkshire and The Humber	900	900	900	1,800	56%	32%	36%	32%
Total	**12,700**	**12,700**	**12,700**	**25,400**	**35%**	**27%**	**24%**	**22%**

Norway	Number of packs collected				ND incidence in empty pack survey[(b)]			
Region	**2018**	**2019**	**2020**	**2021**	**2018**	**2019**	**2020**	**2021**
Akershus	752	376	376	376	40%	33%	20%	20%
Hordaland	1,732	866	866	866	43%	38%	23%	14%
Oslo	4,024	2,012	2,012	2,012	49%	40%	27%	29%
Ostfold	496	248	248	248	44%	39%	24%	23%
Rogaland	838	419	419	419	43%	32%	17%	19%
Sor-Trondelag	1,158	579	579	579	34%	42%	21%	20%
Vest-Adger	454	227	227	273	43%	40%	16%	16%
Troms	546	273	273	227	42%	36%	16%	8%
Total	**10,000**	**5,000**	**5,000**	**5,000**	**44%**	**38%**	**23%**	**22%**

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, 2018-2020

(2) Ipsos empty pack surveys, 2019-2021

(3) WSPM Group empty pack survey, 2021

Empty pack survey results by country

Switzerland results by region, 2018-21[(1)(a)]

Switzerland	Number of packs collected				ND incidence in empty pack survey[(b)]			
Region	2018	2019	2020	2021	2018	2019	2020	2021
Basel	400	400	400	400	13%	12%	9%	11%
Bern	300	900	900	900	11%	11%	7%	6%
Biel	200	-	-	-	6%	-	-	-
Chur	200	-	-	-	10%	-	-	-
Fribourg	200	200	200	200	7%	8%	5%	11%
Geneva	500	700	700	700	14%	23%	9%	14%
Grisons	-	200	200	200	-	13%	4%	8%
Jura	-	-	-	-	-	-	-	-
Koniz	200	-	-	-	10%	-	-	-
La Chaux De Fonds	200	-	-	-	10%	-	-	-
Lausanne	300	-	-	-	10%	-	-	-
Lugano	200	-	-	-	28%	-	-	-
Luzern	200	200	200	200	9%	13%	10%	7%
Neuchatel	200	400	400	400	12%	12%	4%	11%
Schaffhausen	200	200	200	200	14%	15%	9%	8%
Sion	200	-		-	12%	-	-	-
St Gallen	200	200	200	200	12%	6%	13%	9%
Thun	200	-	-	-	8%	-	-	-
Thurgau	-	-	-	-	-	-	-	-
Ticino	-	200	200	200	-	12%	36%	10%
Uster	200	-	-	-	8%	-	-	-
Valais	-	200	200	200	-	10%	13%	7%
Vaud	-	300	300	300	-	11%	7%	7%
Vernier	200	-	-	-	14%	-	-	-
Winterthur	300	-	-	-	8%	-	-	-
Zurich	1,000	1,500	1,500	1,500	12%	14%	7%	8%
Total	**5,600**	**5,600**	**5,600**	**5,600**	**12%**	**14%**	**9%**	**9%**

Note: (a) Only base survey data in the empty pack surveys have been summarised in the tables, i.e. 'focus' samples designed to investigate specific issues have been excluded as they do not form part of the national statistically representative sample; (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) WSPM empty pack surveys, 2019-2021

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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.

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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.

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Scope of work

Estimating the size, nature and financial impact (i.e., equivalent tax value) of illicit consumption of cigarettes in the EU, the UK, Norway and Switzerland for the calendar year 2021

<u>Methodology and Reporting - Estimating the size, nature and financial impact (i.e., equivalent tax value) of illicit consumption of cigarettes in the EU, the UK, Norway and Switzerland for the calendar year 2021</u>

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 2021

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), 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 2017 to 2021, 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 PMPSA 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 PMPSA.

- 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.

- 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 engagements for the Client, using the data sources above.

- Additional data sources may be used to refine the Contractor's analysis.

Scope of work (cont.)

- The Contractor will request meetings or interviews with Law Enforcement representatives 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.
- 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.

If you would like further information, please talk to your usual KPMG contact or contact:

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