KPMG

Project SUN

A study of the illicit cigarette market in the European Union, Norway and Switzerland

2016 Results

kpmg.com/uk/

Important Notice

- This presentation of Project SUN key findings (the 'Report') has been prepared by KPMG LLP the UK member firm ("KPMG") for the Royal United Services Institute for Defence and Security Studies (RUSI), described in this Important Notice and in this Report as 'the Beneficiary', on the basis set out in a private contract dated 28 April 2017 agreed separately by KPMG LLP with the Beneficiary (the 'Contract').

- Included in the report are a number of stand-alone chapters which are written by RUSI. The fieldwork and analysis undertaken and views expressed in these chapters are RUSI's views alone and not part of KPMG's analysis. These appear in the Foreword on page 6, and the Executive Summary on pages 8 and 9, and in the 'RUSI analysis' chapter on pages 23 to 32. RUSI country specific analysis is also provided on pages 84 and 85, 99 and 100, 130 and 131, 140 and 141, 154 and 155, as well as in the methodology section on pages 205 and 206.

- Nothing in this Report constitutes legal advice. Information sources, the scope of our work, and scope and source limitations, are set out in the Appendices to this Report. The scope of our review of the contraband and counterfeit segments of the tobacco market within the 28 EU Member States, Switzerland and Norway was fixed by agreement with the Beneficiary and is set out in the Appendices.

- We have satisfied ourselves, so far as possible, that the information presented in this Report is consistent with our information sources but we have not sought to establish the reliability of the information sources by reference to other evidence.

- This Report has not been designed to benefit anyone except the Beneficiary. In preparing this Report we have not taken into account the interests, needs or circumstances of anyone apart from the Beneficiary, even though we have been aware that others might read this Report.

- This Report is not suitable to be relied on by any party wishing to acquire rights or assert any claims against KPMG LLP (other than the Beneficiary) for any purpose or in any context.

- At the request of the Beneficiary and as a matter of practical convenience we have agreed to publish this Report on the UK firm's website, in order to facilitate demonstration by the Beneficiary that a study into the matters reported has been performed by KPMG LLP for the Beneficiary.

- Publication of this Report does not in any way or on any basis affect or add to or extend KPMG LLP's duties and responsibilities to the Beneficiary or give rise to any duty or responsibility being accepted or assumed by or imposed on KPMG LLP to any party except the Beneficiary. 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 to anyone except the Beneficiary.

- In particular, and without limiting the general statement above, since we have prepared this Report for the Beneficiary alone, this Report has not been prepared for the benefit of any manufacturer of tobacco products nor for any other person or organisation 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

GLOSSARY	
Average Daily Consumption	Daily average consumption by the population of the legal smoking age
BAT	British American Tobacco plc
Bn	Billion
C&C	Counterfeit and Contraband, including Illicit Whites
CAGR	Compound Annual Growth Rate
Cigarette	Any factory-made product that contains tobacco and is intended to be burned under ordinary conditions of use
Cigarillos	A short, narrow cigar, which, like cigarettes, is often machine-made and sold in packs
Consumption	Actual total consumption of cigarettes in a market, including Legal Domestic Consumption (LDC) and illicit products as well as those legally purchased overseas
Contraband (CB)	Genuine products that have been either bought in a low-tax country and which exceed legal border limits or acquired without taxes for export purposes to be illegally re-sold (for financial profit) in a higher priced market
Counterfeit (CF)	Cigarettes that are illegally manufactured and sold by a party other than the original trademark owner. In this report, counterfeit volumes are reported from the manufacturers of BAT, ITL, JTI and PMI, all of which participate in the EPS. Additionally, in some markets such as Bulgaria, Luxembourg and Belgium, local manufacturers also participate
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
Domestic Whites	Domestic Whites are packs of domestic market variant, but those that are priced below the minimum tax yield. These products are treated as having not been legally sold in the country in question, and have therefore been reclassified as non-domestic
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
EPS	Empty Pack Survey
EU	European Union
EU Flows Model	The primary methodology for measuring consumption in a market. The model has been developed by KPMG on a bespoke basis for the specific purpose of measuring inflows and outflows of cigarettes in the scope of this project
EUTPD	European Union Tobacco Products Directive
FTZ	Free-trade zone
FYROM	Former Yugoslav Rebublic of Macedonia
Green Leaf	Uncut dried tobacco leaf, which smokers cut themselves
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

Glossary

GLOSSARY	
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/Outflows	Inflows of non-domestic product into a market / outflows of product from a market
ITL	Imperial Tobacco Limited
JTI	JT International SA
LDC	Legal Domestic Consumption is defined as Legal Domestic Sales (LDS) net of outflows
LDS	Legal Domestic Sales of genuine domestic product through legitimate, domestic channels based on In Market Sales (IMS) data
Mn	Million
MPPC	Most Popular Price Category
MYO	Make Your Own tobacco products
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
NMA/TMA	National Manufacturers' Association / Tobacco Manufacturers' Association
OCG	Organised crime group
OLAF	Office Européen de Lutte Antifraude also known as the European Anti-Fraud Office
OTP	Other Tobacco Products (RYO/MYO, cigarillos, portions, rolls and cigars; excluding smokeless tobacco and water-pipe tobacco)
PMI	Philip Morris International Management SA
RUSI	Royal United Services Institute for Defence and Security Studies
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	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 or other official sources

Contents

Foreword by the Royal United Services Institute

Project SUN is a study that estimates the scale of the illicit cigarette market in the EU, Norway and Switzerland

This independent study, performed by KPMG, was commissioned by the Royal United Services Institute for Defence and Security Studies (RUSI). In addition to estimating the scale of the illicit cigarette market, the study aims to assess the nature and dynamics of illicit cigarette flows, covering the origins of illicit products and the main brands involved. The industry contributed data and insights, which were used in analysing market trends.

Following an established and rigorous quantitative methodology, KPMG has conducted a range of statistical analyses for each of the countries studied. These examine the volume of illicit cigarette consumption in each country, the origins of non-domestic inflows, the destinations of outflows, as well as the main brands involved.

Based on primary research conducted in 2015-16, RUSI has provided qualitative analysis of the organised crime dynamics driving the trends presented in the report. The research draws on interviews with law enforcement, industry and academic experts, as well as operational fieldwork in five countries – Greece, Italy, Poland, Romania and Spain.

On this basis, RUSI has provided stand-alone chapters in this report which add additional context to KPMG's quantitative analysis. These include an executive summary and the chapter 'Organised Crime and the Illicit Cigarette Trade in Europe', alongside a short analysis at the end of the KPMG country reports for Greece, Italy, Poland, Romania and Spain. These short reports provide an overview of the routes and methods employed by organised crime groups (OCGs) in each country.

These inputs have enabled RUSI to provide additional context to KPMG's quantitative analysis, highlighting the organised crime practices underpinning the data. When considered together, the findings offer detailed insights into the true scale and nature of the illicit cigarette market across Europe, as well as the wider organised crime dynamics fuelling the trade. A clear understanding of these issues is crucial to inform the development of effective responses.

Cathy Haenlein
Research Fellow, Serious and Organised Crime
Royal United Services Institute

Executive Summary

Key findings

Counterfeit and Contraband (C&C) declined by 8.8% to 48.3 billion cigarettes in 2016, but still accounted for over 9% of total consumption

- C&C continued to account for over 9% of total consumption, representing a tax loss of €10.2 billion, making illicit trade one of the largest major competitors within the cigarette market
- Illicit white brand flows accounted for 16.4 billion cigarettes, while Ukraine replaced Belarus as the largest source of C&C
- In many cases illicit trade hotspots remained, while the brands and countries of origin changed, demonstrating how local demand for illicit cigarettes continued despite the changing routes and sources used by cigarette smugglers

Drivers of illicit trade reduction

Positive macroeconomic factors and a stable pricing environment contributed to reducing demand for illicit products

- Macroeconomic indicators demonstrated economic growth, reduced unemployment and an increase in Personal Disposable Income (PDI) in 25 of the EU28 member states, resulting in fewer consumers turning to the illicit trade
- There were 8% fewer cross border trips made across the EU in 2016 compared to 2015
- Sales of Legal Domestic Cigarettes remained stable against a backdrop of low prices increases, as a result of limited excise tax increases, especially in the first half of 2016

Ongoing law enforcement and border controls contributed to reducing the supply of C&C products into the EU

- OLAF intensified activities with international partners, alongside seizures by the Joint Customs Operation, indicated sustained and targeted law inforcement activity on the Eastern EU border
- C&C reduced against a backdrop of increased border security for many EU countries
- A decline in counterfeit was also observed as 55 illegal factories in the EU were successfully closed

RUSI analysis on underlying organised crime dynamics

Organised crime groups (OCGs) engaged in the illicit cigarette trade are increasingly diverse in the routes and methods they employ, and in the products they manufacture, transport and sell

- OCGs involved in the illicit cigarette trade increasingly operate as flexible networks, cooperating on an ad-hoc basis for mutual benefit. They are highly resourceful in their methods, exploiting free trade zones, online marketplaces, and postal and courier services to move C&C relatively unimpeded
- Adopting a 'little and often' approach to smuggling, the OCGs involved are able to slip under authorities' thresholds for investigation and to adapt routes in response to law-enforcement action
- Social acceptability is a key enabler of the illicit cigarette trade; many consumers view this as a 'victimless' crime and are quick to excuse involvement

RUSI Analysis: Organised Crime and the Illicit Cigarette Trade in Europe

The global trade in illicit cigarettes remains one of the world's foremost criminal enterprises. Despite a notable drop in consumption of C&C in 2016, **it continues to represent a substantial source of income for OCGs** across Europe. In 2016, 48 billion illicit cigarettes were consumed in the EU, while illicit consumption deprived governments of €10.2 billion in tax. Activity on this scale represents major organised crime on an international level, conducted by agile groups to feed sustained consumer demand.

For these groups, the trade presents significant opportunities. OCGs engaged in this activity face considerably lower risks compared to many other forms of crime. Across Europe, law enforcement has typically focused on more visible criminal activity – particularly drug trafficking – which is perceived to pose a more immediate threat. Meanwhile, **the profits to be made can be just as significant as those attached to higher-risk crime**. With low production costs, illicit cigarettes are lightweight and easy to transport, yet retain a high sale value and consistent consumer demand.

As a result, **many groups have diversified to exploit this low-risk, high-reward activity**. Some have done so whilst remaining active in other crime types, shifting activities as profits dictate. Such groups can exploit networks of associates, routes and trafficking methods used for other forms of criminality. They can also shift between commodities as desired, with profits from one crime used as 'start-up capital' for new criminal ventures.

However, the largely invisible nature of the illicit cigarette trade means that it has often not received the same level of attention as other forms of crime. Competing imperatives and financial austerity in many states have seen the issue remain low on priority lists. Meanwhile, **limited post-seizure investigations mean that governments often only have a limited understanding of the OCGs involved**, and the routes and methods they use. This limited intelligence picture contrasts strikingly with the granular information presented by Project SUN on the scale of the illicit market itself.

RUSI research conducted in 2015–16 seeks to address this mismatch. It offers **qualitative analysis of the organised crime dynamics driving the trends presented in this report**. The research draws on interviews with law enforcement, industry and academic experts, as well as operational fieldwork in five countries – Greece, Italy, Poland, Romania and Spain. The aim is to highlight shifts in organised crime practice underpinning the trends observed, thus better equipping European states to respond.

The findings shows that **groups involved in the illicit cigarette trade are flexible,** highly resourceful in their methods of concealment, and quick to identify emerging business opportunities. Rather than well-defined, hierarchical organisations, they commonly operate as loose, transient networks, cooperating on an ad hoc basis. Partnerships are pragmatic in nature, lasting only as long as they yield success. This agility poses challenges to enforcement agencies, whose less flexible institutional structures are often ill suited to the dynamic nature of the threat.

In order to minimise loss in the event of detection, the **groups involved increasingly adopt a 'little and often' approach to C&C smuggling**. This involves splitting illicit cigarettes into numerous, smaller consignments, which are sent along an array of routes and channels. Though potentially increasing the costs incurred, such consignments rarely reach authorities' thresholds for inspection. This allows goods to fly under the radar of law enforcement, reducing potential losses and enhancing the profits to be made.

At the same time, **OCGs involved in C&C smuggling exploit opportunities presented by 21st century commerce** and the global architecture designed to facilitate large-scale distribution of goods. An example concerns free trade zones (FTZs), which allow legal and illicit businesses alike to manufacture, store and transport large quantities of goods with minimal interference. OCGs exploit weaknesses in FTZ oversight; warehousing facilities are known to be used in manufacturing, repackaging and relabeling C&C. Corruption both here and along the supply chain acts as a further facilitator of this activity, assisting the groups involved to continue to evade law-enforcement controls.

A related trend concerns the **use of the Internet, and postal and courier services to transport illicit cigarettes**. Capitalising on the growth of e-commerce, such services allow under-the-radar deliveries of C&C – hidden in plain sight amongst legitimate packages transiting the globe en masse. OCGs are aware that only a low percentage of all parcels can be inspected. Even if a consignment is detected, the small quantity of goods contained represents a small loss against the number of parcels successfully delivered in the same timeframe.

Illicit production also remains a problem within Europe. Many illegal factories have been shut down in recent years, ranging from small operations in a single room to sophisticated, industrial-scale factories. Establishing such facilities requires sizeable up-front investment and expensive machinery, which is often imported from abroad. Often, OCGs will only 'sponsor' a factory once the final buyer or destination market are identified. Distribution dictates production, so that a batch of stock will be 'made to order' with health warnings in the correct language, or with duty-free markings for the destination market already prepared.

On the demand side, **social acceptability is a key enabler of the illicit cigarette trade**. In many EU states, consumers are quick to excuse involvement on the grounds of high taxes and low disposal incomes. This poses challenges to government policy, by lowering the psychological barriers for entry into this activity. It also increases the size of the market, with more people ready to buy C&C through such channels.

A related issue concerns the acceptability of illicit loose tobacco. As tobacco consumers have looked for cost-effective alternatives to traditional products, there is concern that illicit consumption is rising. A 2016 Transcrime study of 15 European countries found that over 48% of the total volume of cut tobacco consumed in 2015 was illicit; in 5 countries this rate was over 75%.[1] Such consumption provides further opportunities for criminals operating in the illicit cigarette market, allowing them, in many cases, to infiltrate supply chains at source.

Finally, in many countries, **weak legislation and lenient penalties have proven ineffective** in deterring both new entrants and repeat offenders. In many states, organised criminals are seen returning to the trade again and again following prosecution. When they return, they do so with greater knowledge of law-enforcement methods and capabilities. More skilled operators as a result, they become an increasingly difficult target for subsequent targeting and investigations.

Fundamentally, the **rewards for engagement in the illicit cigarette trade remain too high and the risks too low**. Until this balance is altered, the trade will remain a key focus of organised crime activity across Europe. Adjusting the balance will require attention to the enablers described above, and the barriers they create to responses. The aim must be to create a more hostile environment for OCGs exploiting a trade that remains, to many citizens, invisible, accessible and, most damagingly of all, broadly acceptable.

The analysis provided by RUSI is presented on pages 23-32 of the report. This analysis is divided into three sections. It outlines, first, the changing nature and structure of the OCGs supplying EU illicit cigarette markets, and the context for these shifts in their makeup. Second, it examines the routes, techniques and modi operandi employed – in relation to both C&C smuggling and illicit production. Finally, it examines key factors enabling OCG engagement in the illicit cigarette trade, as well as their implications for policies aimed at disruption.

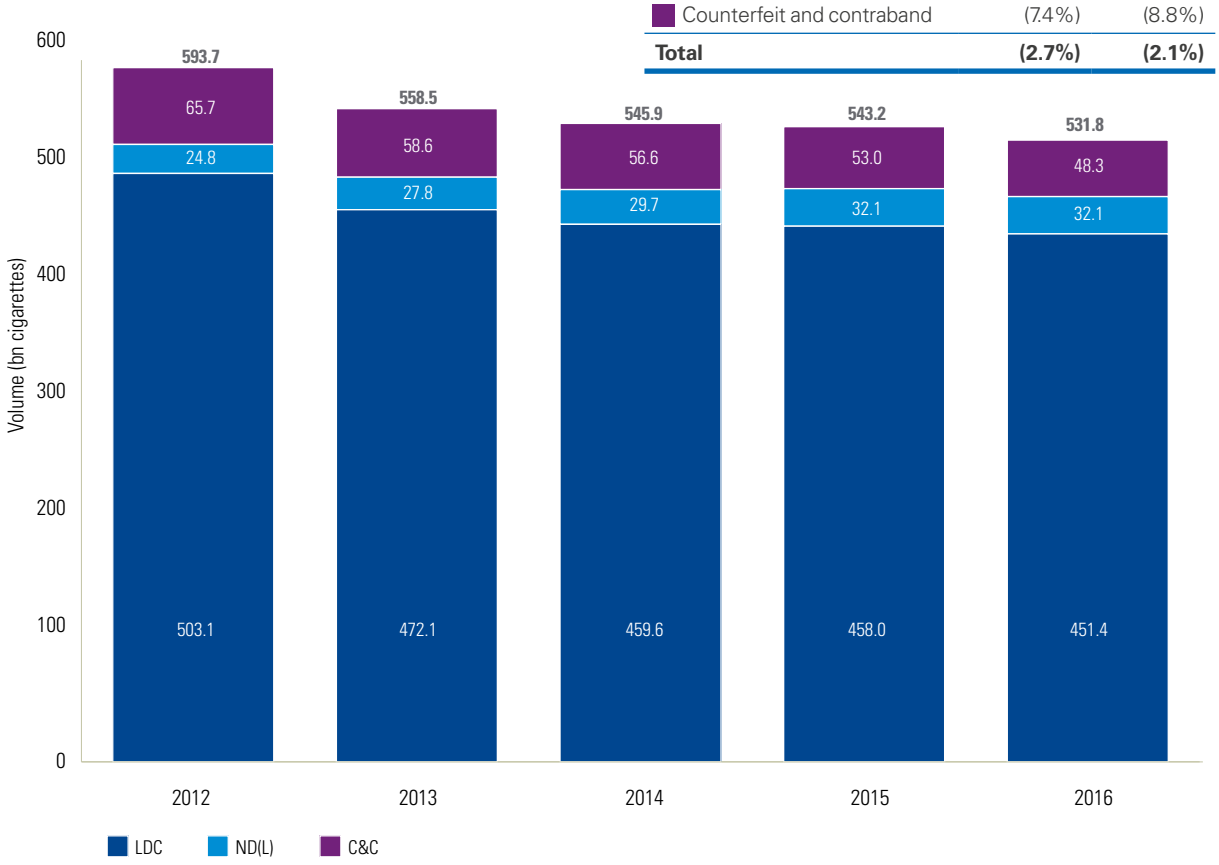
Sources: *(1) Transcrime, 'Bulk Tobacco Study 2015: Assessing the illicit trade and consumption of cut tobacco in 15 markets in Europe', July 2016.*

C&C declined by 8.8% whilst Legal Domestic Sales remained stable

- C&C continued to decline at a greater rate than legal domestic consumption, reversing the trend witnessed from 2012 to 2014
- C&C consumption by volume remained highest in France at 8.96 billion cigarettes, followed by Poland and the UK at 6.16 billion and 5.55 billion respectively
- Sustained economic recovery in the EU may have continued to limit the decline of Legal Domestic Sales compared to the historical trend, with PDI increasing by an average of 3.1%[2] across all member states, reducing the incentive for cheaper illicit consumption
- Increased anti-illicit trade activity, as evidenced by a rise in the number of seizures made across Europe, may also have contributed to the C&C decline
  - Total volume of cigarettes seized continued to increase from 3.1 billion to 3.8 billion across the EU[4]
  - OLAF supported seizures accounted for a record volume of over 1.1 billion cigarettes in 2015-2016[3]

Manufactured cigarette total consumption – 2012-2016[1]

CAGR (%)	2012-2016	2015-2016
Legal domestic consumption	(2.7%)	(1.4%)
Non-domestic legal	6.7%	(0.1)%
Counterfeit and contraband	(7.4%)	(8.8%)
Total	**(2.7%)**	**(2.1%)**

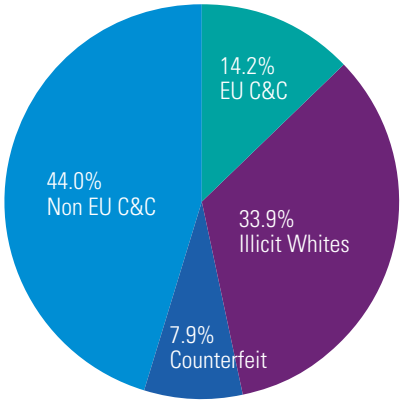


Sources: *(1) KPMG EU Flows Model 2012-2016 (2) Economics Intelligence Unit, 2016 (3) Progress report on the implementation of the Commission Communication "Stepping up the fight against cigarette smuggling and other forms of illicit trade in tobacco products - a comprehensive EU strategy (Com (2013) 324 final of 6.6.2013)" (4) The OLAF Report, 2016*

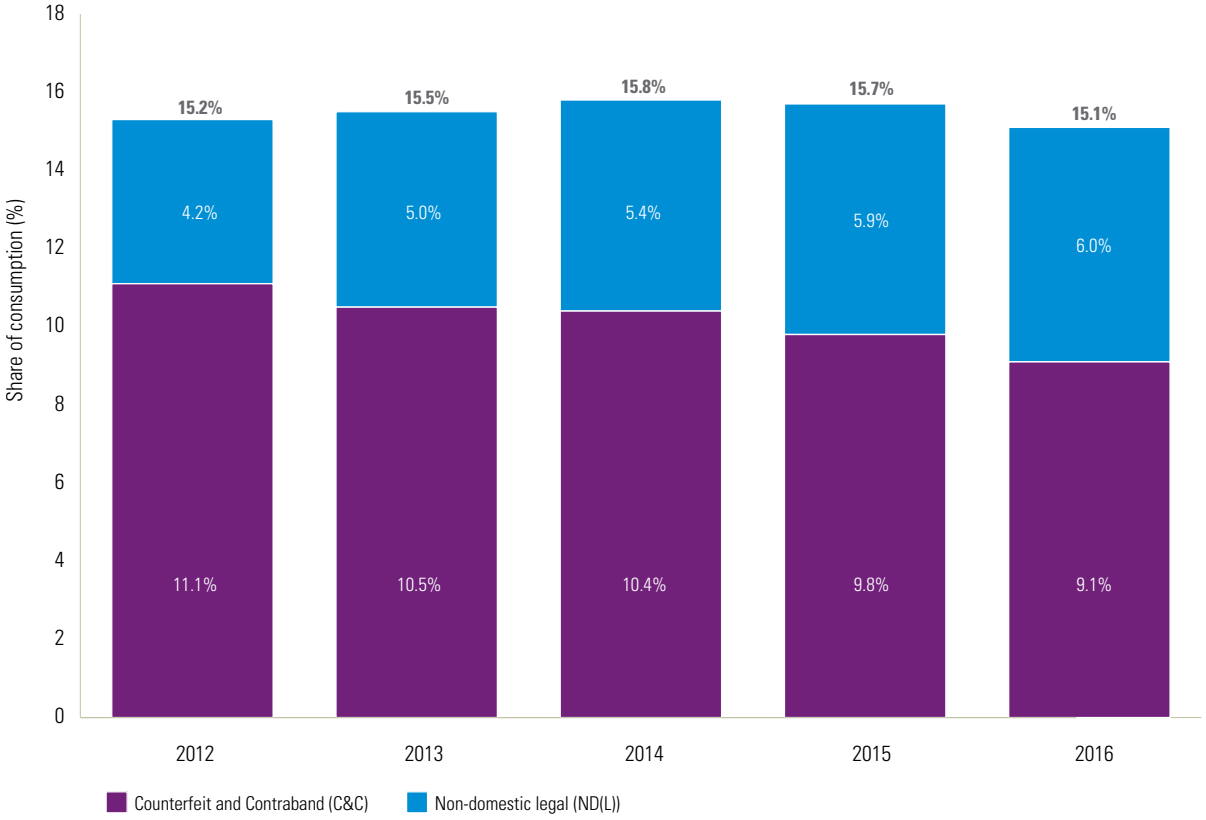
C&C fell to 9% of total consumption, with non-EU contraband remaining the key source of illicit cigarettes

- Illicit cigarettes from outside the EU accounted for 86% of the C&C identified in the study
  - Flows of Ukrainian labelled product were the largest single source, representing 12% of total C&C flows
  - Other country specific flows from Belarus and Algeria accounted for 10% and 7% of C&C respectively
- Counterfeit declined by 19%, as 55 factories producing counterfeit product were closed in the EU[2]
- Flows of ND(L), cigarettes which have been brought in to the country legally, remained stable
- Illicit Whites make up the majority of large seizures (accounting for 97% of OLAF supported seizures), indicating that 'other C&C' is more likely to be transported in lower volumes with less OCG involvement[3]

Type of C&C – 2016[1]



ND(L) and C&C share of total EU28 consumption – 2012-2016[1]

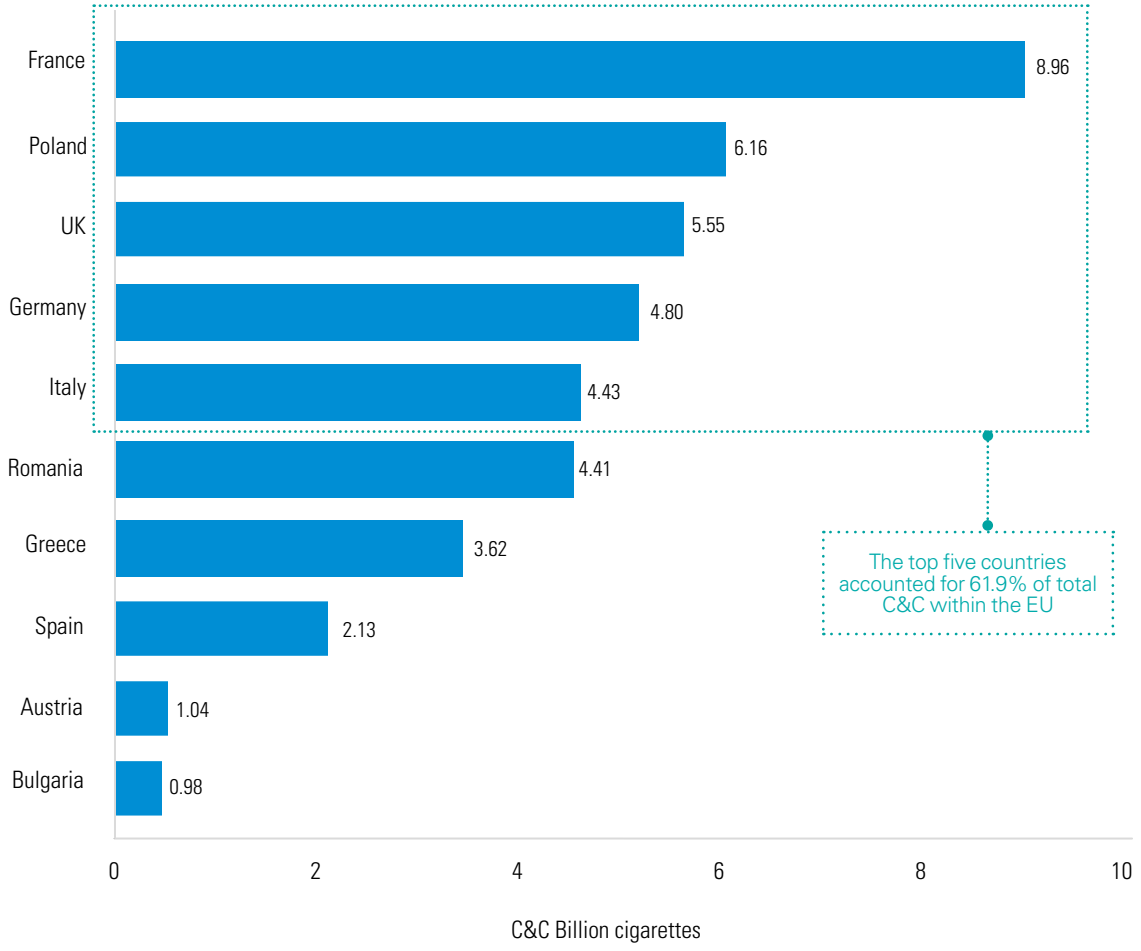


Sources: (1) KPMG EU Flows Model 2012-2016 (2) Information originating from Public Sources and/or notifications of law enforcement actions received by Philip Morris International (3) KPMG analysis of OLAF Press Release No.13, 2015; European Commission ST-6279-2016, February 2016; The OLAF Report, 2015

C&C as a percentage of consumption remained above 10% for 12 of the 30 countries in the study

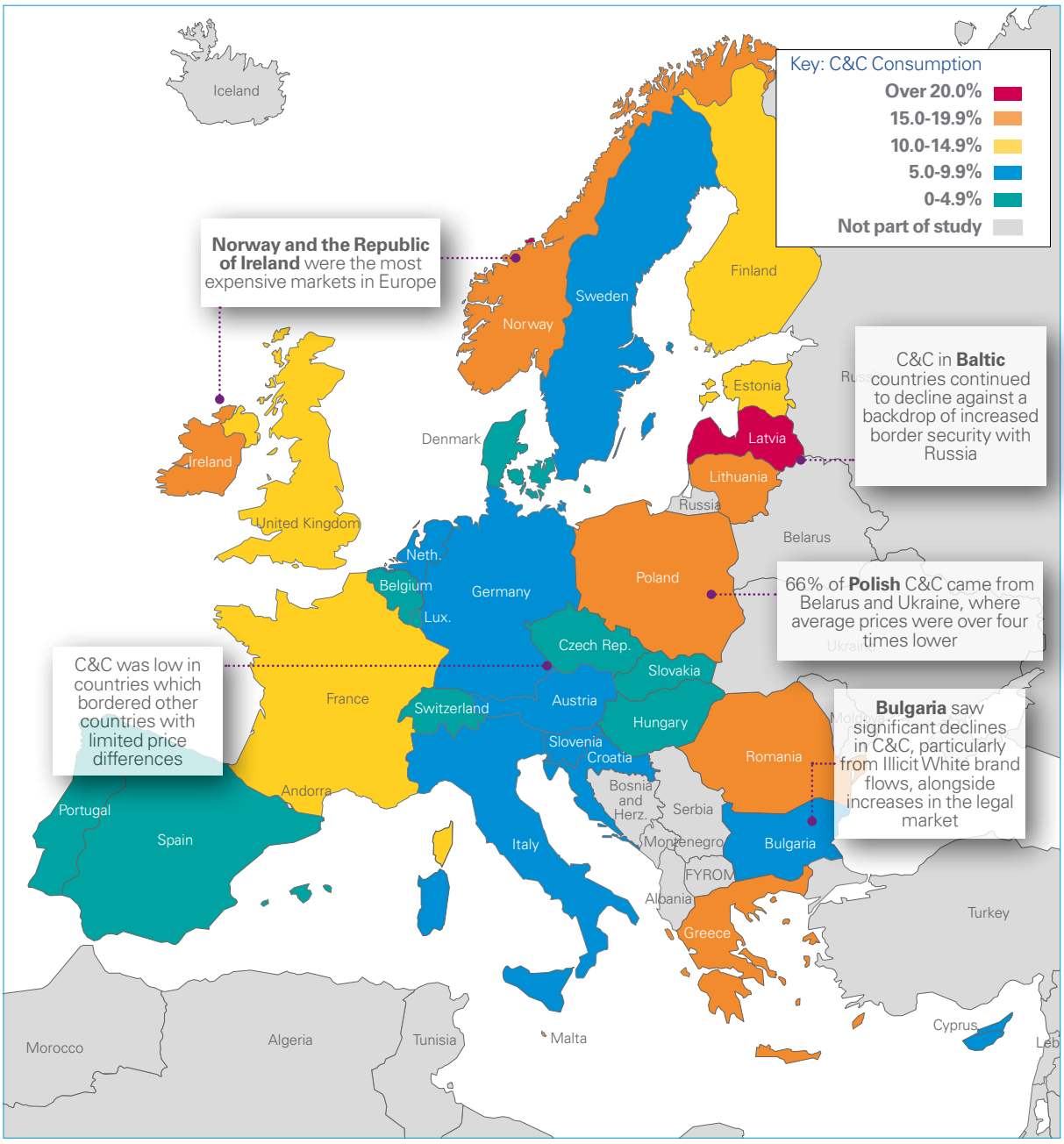
- Eastern EU countries with high levels of C&C mainly bordered non-EU countries where the average price of a packet of cigarettes was up to 4 times lower
- C&C as a percentage of consumption was also high in Norway and Ireland,two of the highest price countries in the study
- Whilst not having the highest level of C&C as a proportion of consumption, the highest volume of C&C was identified in France
- Of the top ten C&C countries by volume, only Romania and Austria experienced an increase in C&C in 2016

Top 10 C&C countries by volume, 2016[1]



Source: *(1) KPMG EU Flows Model 2012-2016*

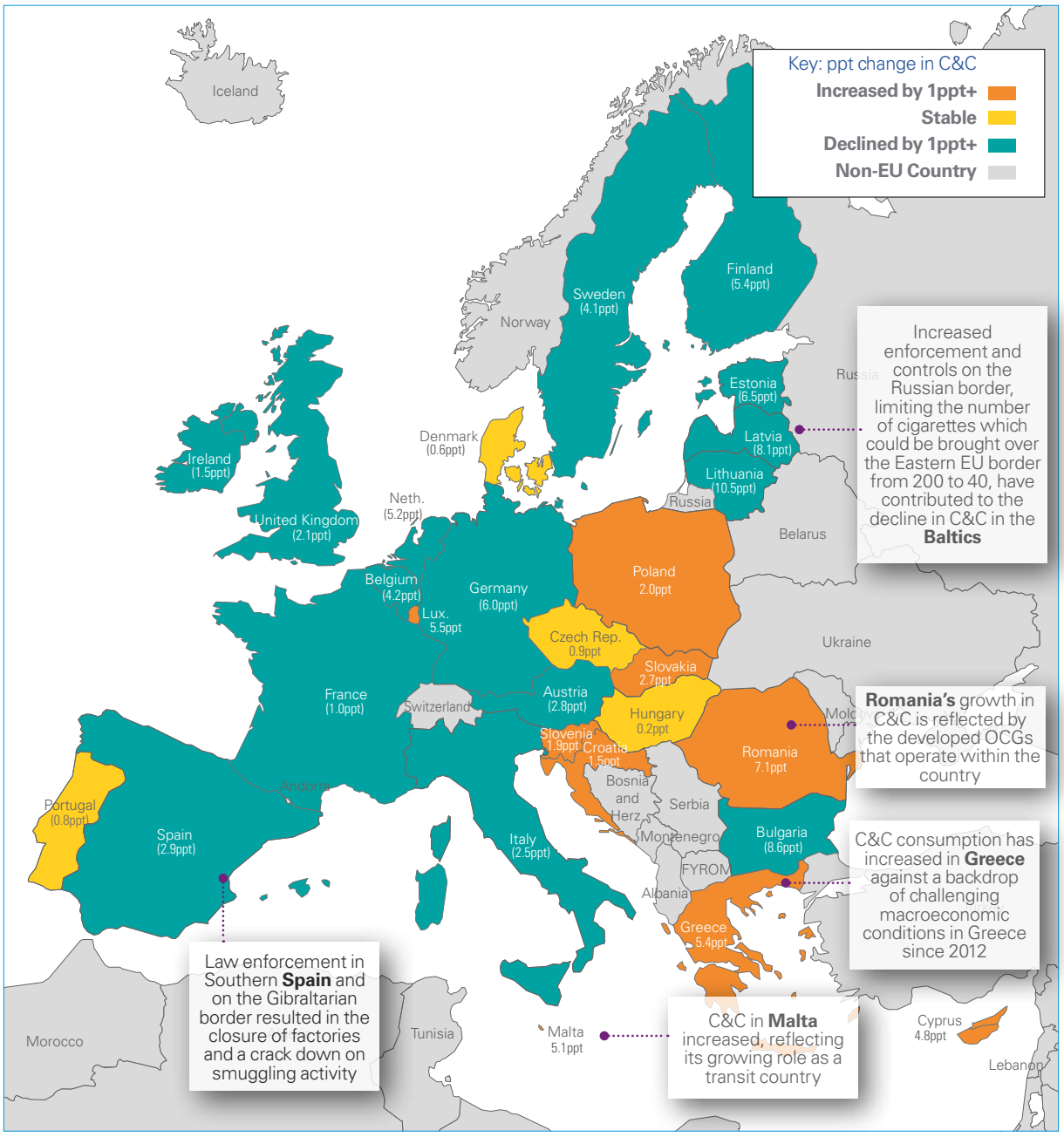
C&C consumption as a percentage of total consumption, 2016[1]



Source: *(1) KPMG EU Flows Model 2016*

C&C as a percentage of consumption fell in 18 of 28 EU countries from 2012 to 2016

Percentage point change in C&C consumption as a percentage of total consumption, 2012 vs. 2016[1][(a)(b)]

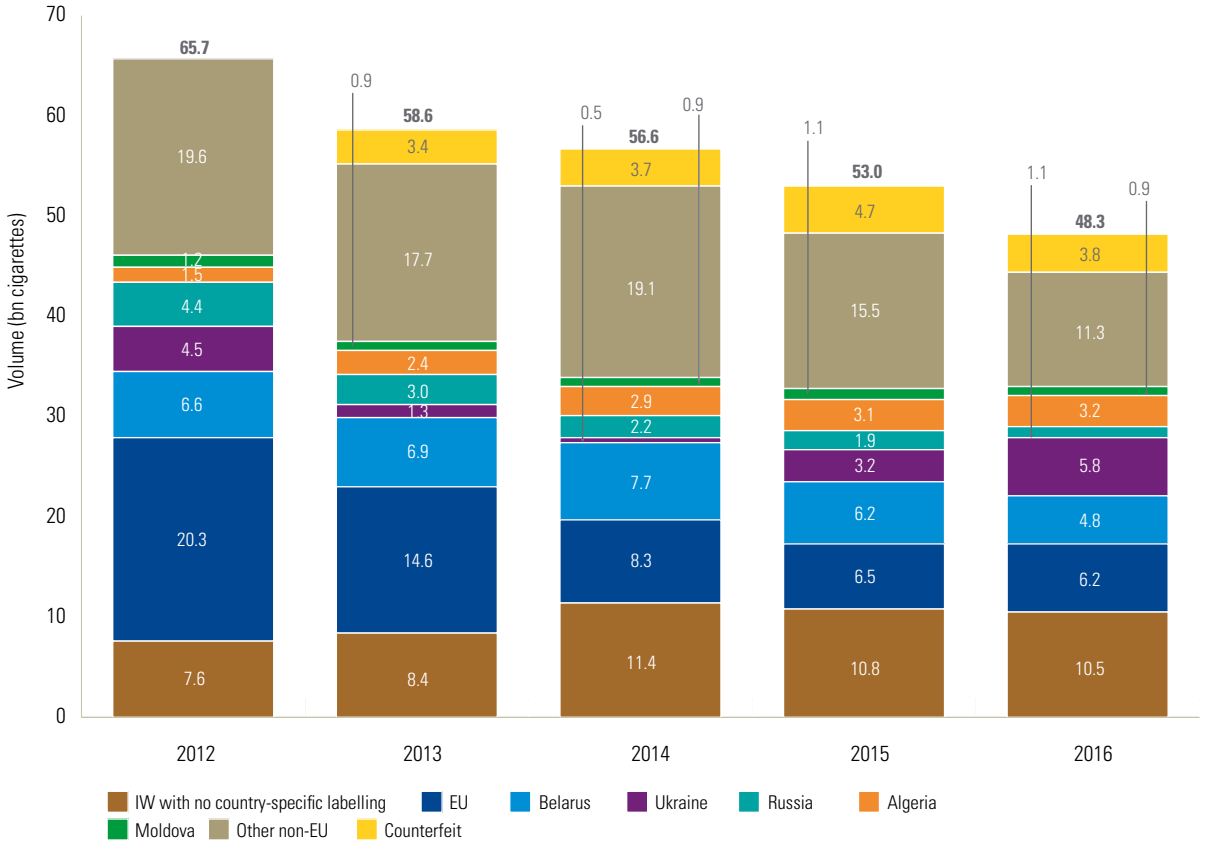


Note: *(a) A percentage point, or ppt, is the unit for the arithmetic difference between two percentages (b) Croatia data available since 2013*
Source: *(1) KPMG EU Flows Model 2016*

Non-EU countries and Illicit White brand flows with no country specific labelling accounted for the majority of C&C consumption in the EU

- C&C from outside of the EU accounted for 86% of the flows identified in the study as flows from within the EU continued to fall
- The largest flow came from Ukrainian labelled cigarettes, replacing Belarus as the largest source country
  - The shift in source countries took place as much larger travel flows to the EU occurred alongside price reductions and currency depreciation in Ukraine, resulting in lower prices compared with Belarus
  - Low legal cigarette allowances when travelling between Ukraine and the EU mean that a high volume of the flow is C&C
- Poland was the largest source of C&C within the EU; travel flows between Poland and higher-priced countries such as Ireland, Norway, UK and France did not support non-domestic cigarettes identified from Poland

Sources of C&C by volume, 2016[1]

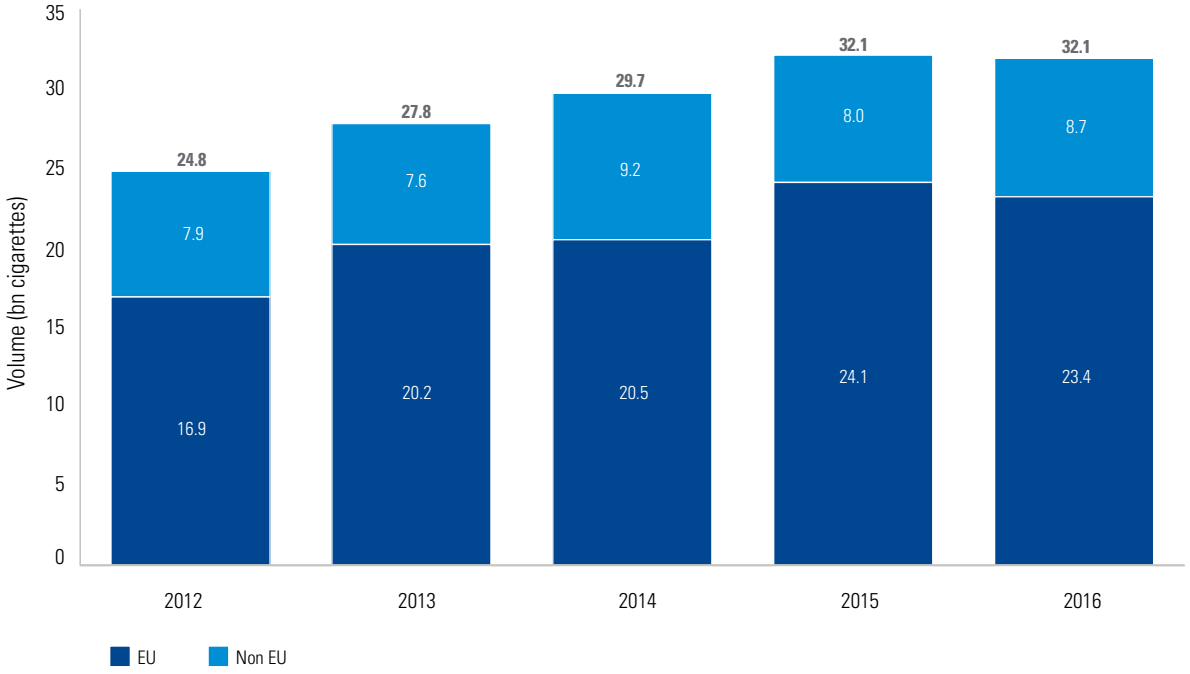


Source: *(1) KPMG EU Flows Model 2012-2016*

Non-domestic legal (ND(L)) was stable as increasing flows of EU migrant workers from lower-priced countries were offset by reduced tourist flows

- ND(L) is reflective of cigarettes purchased by travellers, who take advantage of cheaper prices, the legal allowance[a] and opportunities for tax-free purchases[b]
- Travel into and out of the countries in the study declined by 8%, with more limited border travel in several countries in the aftermath of terrorist attacks during the year[2]
- Conversely, flows from countries with high migrant populations increased. Whilst some of these flows were C&C, a high proportion is legitimate cross-border consumption
- The largest flows originated through tourism to Spain (from France and the UK), and from Poland and the Czech Republic to neighbouring Germany

Source of ND(L) – 2012-2016[1]

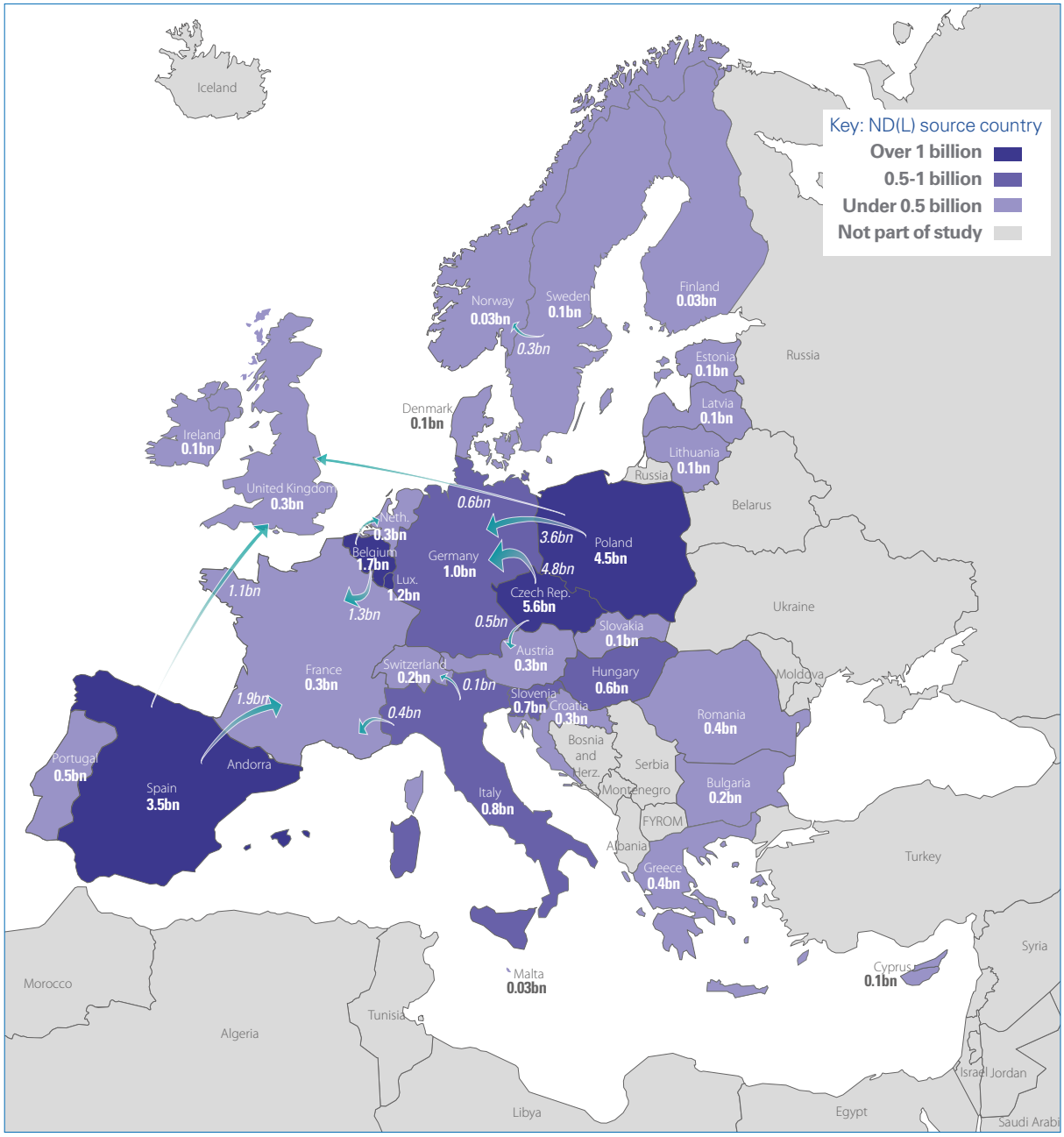


Note: *(a) 800 is the generally indicated limit which EU member cigarettes have put in place for travel within the EU (b) 200 is the Duty Free allowance for travel into or out of the EU*

Source: *(1) KPMG EU Flows Model 2012-2016 (2) KPMG analysis of WTO data 2016*

ND(L) was highest from lower-priced countries which border some of the largest EU economies

Total volume of ND(L) by source country – 2016[1]

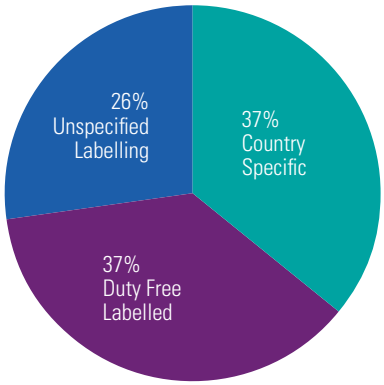


Source: *(1) KPMG EU Flows Model 2016*

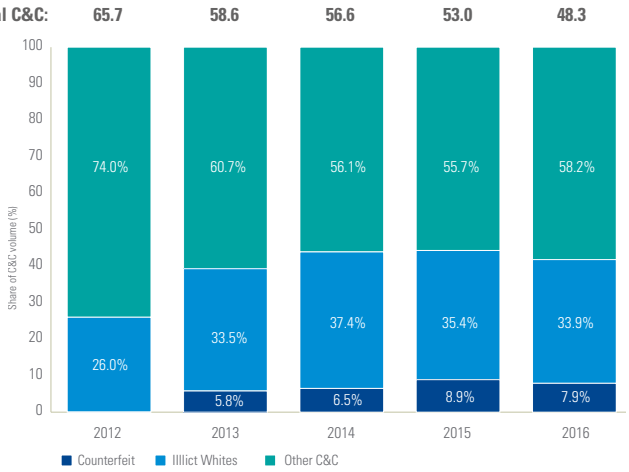
Illicit Whites brand flows continued to represent over one third of C&C in the EU

- Illicit Whites brand flows are generally defined as brands which have limited legal distribution in the EU
- Illicit Whites brand flows accounted for 16.4 billion cigarettes and remained stable as a proportion of C&C
- The brand mix and trademark owners of Illicit Whites continued to change, demonstrating the flexibility of illicit trade
- 64% of Illicit Whites brand flows were misleadingly labelled as Duty Free[(a)] or had no country specific labelling, resulting in limited identification of the country of origin or trademark owner[(b)]

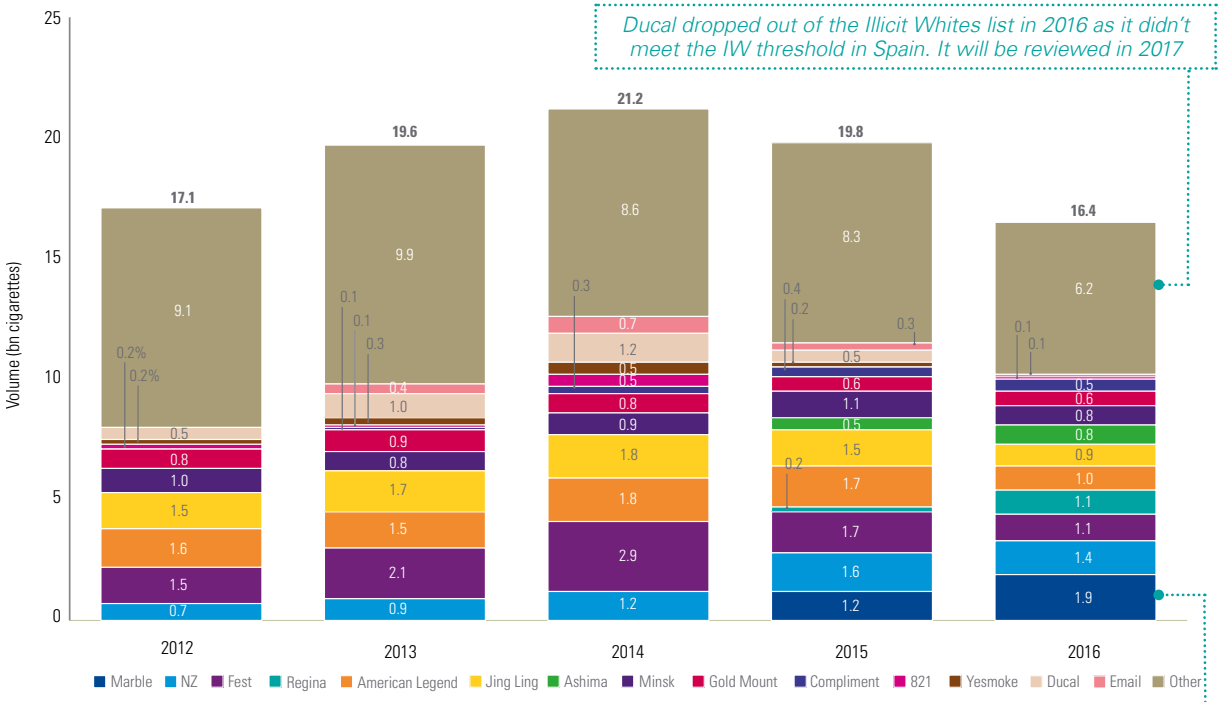
Illicit Whites labelling – 2016[(b)]



Illicit Whites as a percentage of total C&C – 2012-2016[(1)(a)(c)(d)]



Illicit Whites by brand – 2012-2016[(b)]



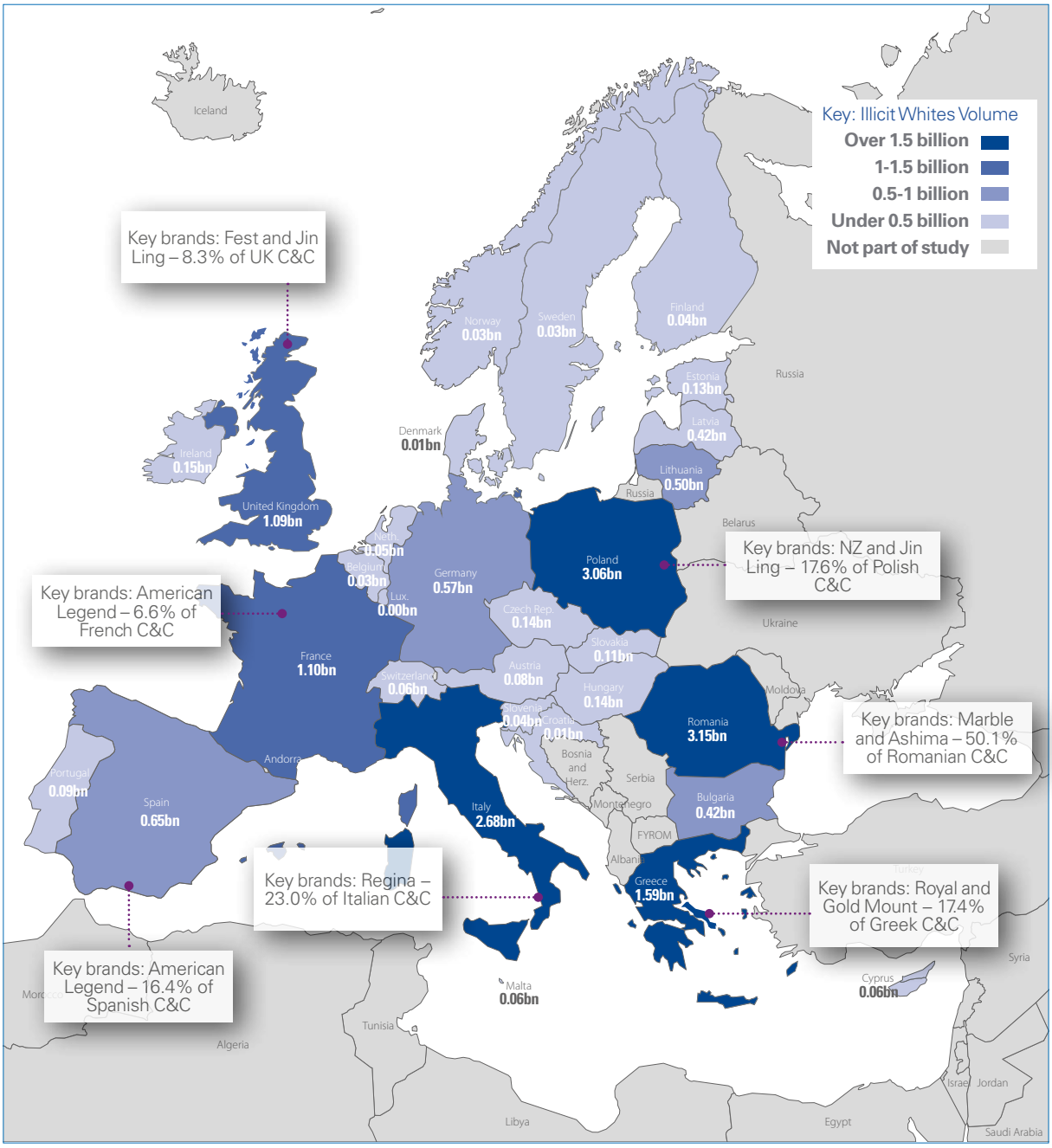
Ducal dropped out of the Illicit Whites list in 2016 as it didn't meet the IW threshold in Spain. It will be reviewed in 2017

Romanian Marble was included in the Illicit White definition in 2016 as a result of its high volume and duty Free labelling. 2015 figure also updated for comparability

Notes: *(a) Duty Free labelled brands may be classified as Illicit Whites as they are unavailable in Duty Free outlets (b) KPMG's approach to identifying Illicit Whites is explained in the appendix. When determining Illicit White brand flows, KPMG is not able to distinguish between genuine and counterfeit product as counterfeit can only be identified from brands trademark-owned by the four OLAF agreement participants (c) Other C&C consists of EU labelled and Non-EU labelled C&C (d) Counterfeit reported from 2013 onwards, when sufficient data became available due to the participation of multiple manufacturers in the study*

Sources: *(1) KPMG EU Flows Model 2012- 2016 (2) KPMG analysis of OLAF Press Release No. 13, 2015 and European Commission ST-6279-2016, February 2016 (3) The OLAF Report, 2015*

Illicit Whites Volume – 2016[1]

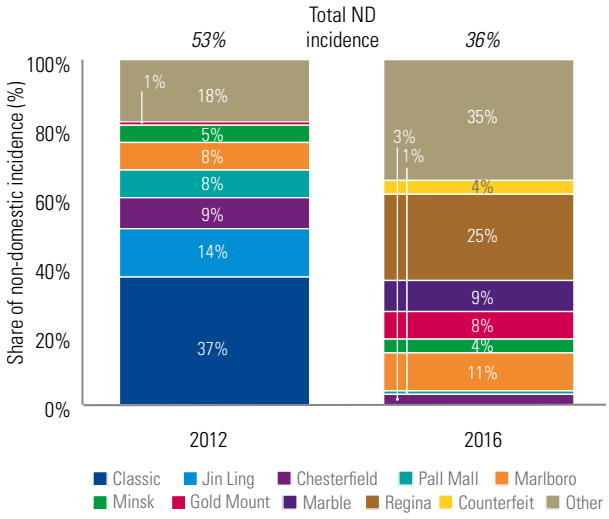


Sources: *(1) KPMG EU Flows Model 2016*

The changing dynamics in illicit hotspots demonstrates the flexibility of the illicit cigarette supply chain

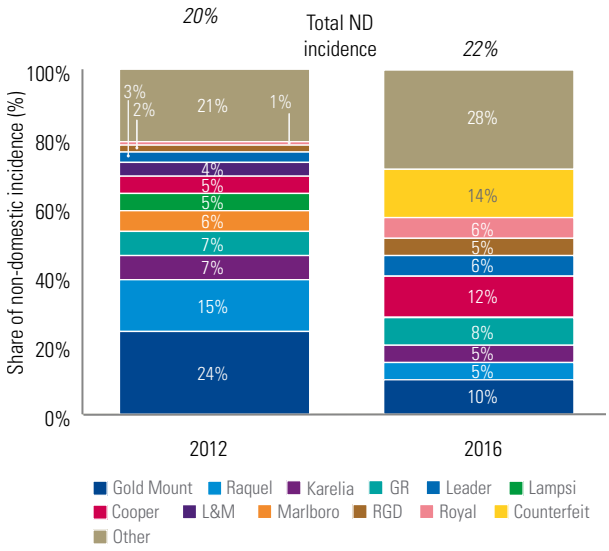
- Some city or regional hotspots have non-domestic incidences which are greater than that of the country overall (such as Naples in Italy or Andalucia in Spain)
- The flexibility of illicit trade in these hotspots is reflected by the shift in country of origin and brands identified between 2012 and 2016, with the decline or disappearance of key brands replaced by the emergence of new brands, while the high volumes identified remain the same
- These changes help to demonstrate that whilst the supply of illicit cigarettes may appear to be cut off and factories closed, the total volume remains constant as new routes and sources emerge to satisfy demand

Naples (Italy) ND by brand – 2012-2016[1]



- Between 2012 and 2016 in Naples, illicit whites flows of Regina, Marble and Gold Mount emerged as Jin Ling, which is trademark-owned by Baltic Tobacco, effectively disappeared
- In 2014, the majority of illicit consumption in Naples came from Yesmoke (a domestic producer closed down when Italian law enforcement moved against it in Q4 2014), further demonstrating the changing mix of illicit trade[2]

Attica (Greece) ND by brand – 2012-2016[1]



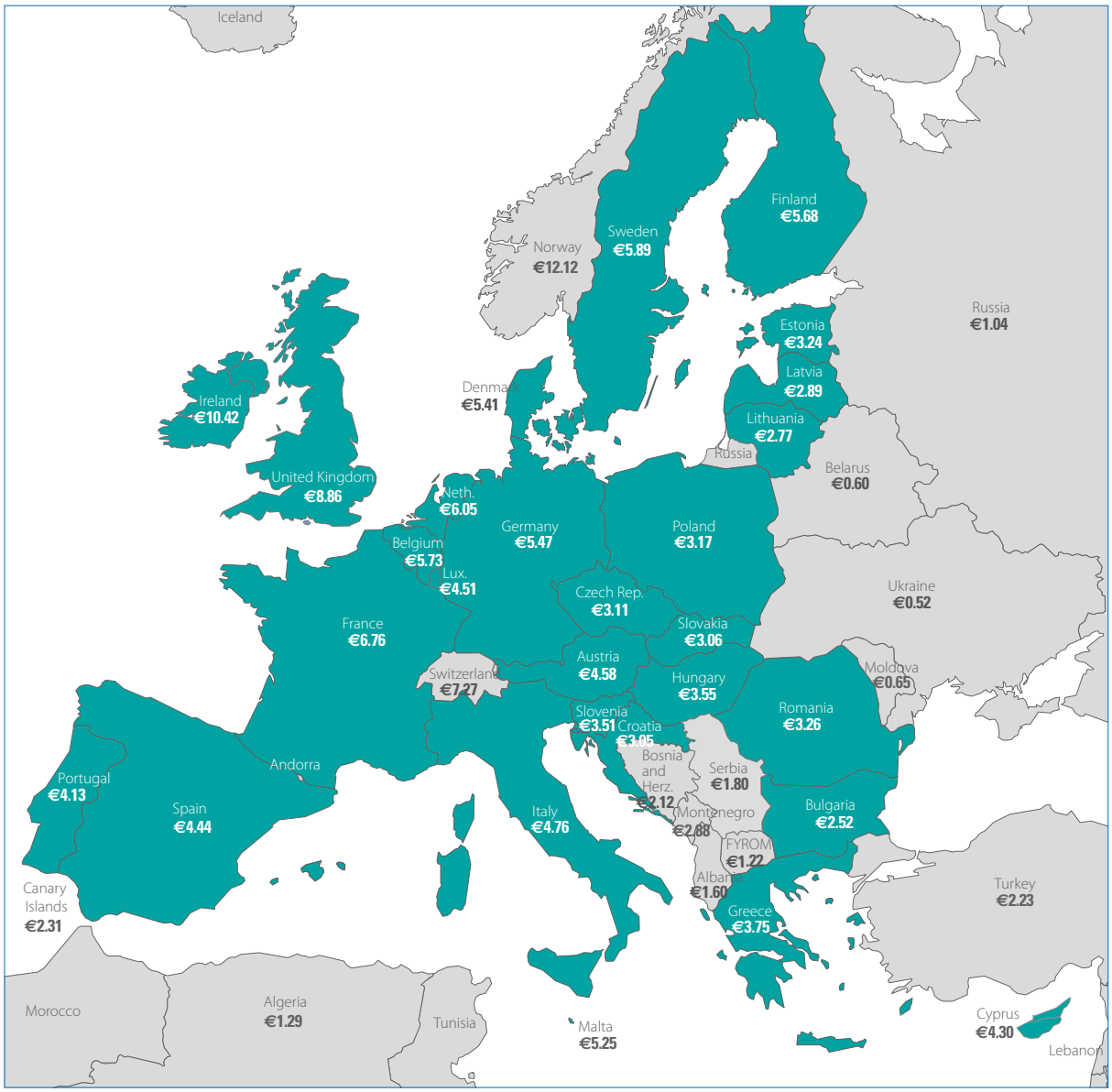
- Gold Mount and Raquel illicit white brand flows which accounted for 39% of ND in 2012 declined to 15% of ND in 2016
- An increase in Cooper ND between 2012 and 2016 and the emergence of Royal and RGD illicit white brands replaced the decline of the established brands, as illicit consumption remained stable

Sources: (1) KPMG analysis of EPS results, 2012 and 2016 (2) KPMG analysis of EPS results, 2014

The largest C&C source countries were those with the lowest prices on the Eastern EU border

- Prices changed by less than 5% in 20 of the EU countries, particularly in the Eastern and Southern EU states, reflecting limited excise tax increases
- In many cases, price increases as a result of any excise tax rises were delayed until later in the year, with average prices unchanged in 21 countries by the middle of the year in July 2016
- Ukraine replaced Belarus as the cheapest non-EU source country in 2016, also replacing Belarus as the largest source market of contraband cigarettes

Map denotes weighted average prices for a pack of 20 cigarettes – January 2017[(1)(2)(a)]

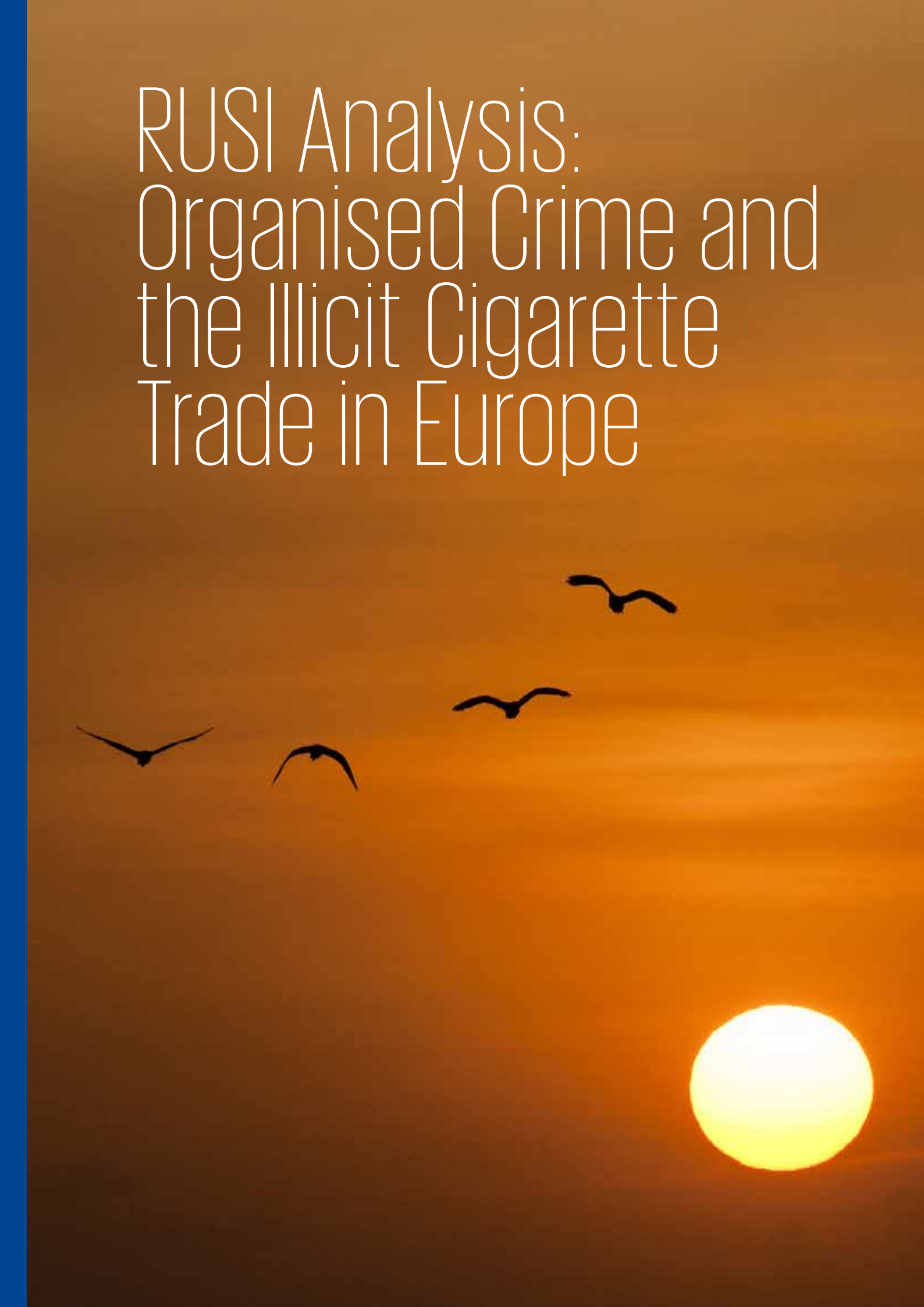


Key:
EU countries
Non-EU countries

Note: *(a) Manufacturer estimates based on the price of the most sold brand used for countries not included in the EU Tax Tables*

Sources: *(1) EU Tax Tables and pricing information on most sold brands outside of EU (2) Data provided by manufacturers for Canary Islands, Norway, Switzerland, Belarus, Ukraine, Russia and Albania*

RUSI Analysis: Organised Crime and the Illicit Cigarette Trade in Europe



RUSI Analysis: Organised Crime and the Illicit Cigarette Trade in Europe

The illicit cigarette trade, in many ways, represents **the modern face of organised crime** in Europe.[1] Diverse, networked and largely out of view of the general public, it presents an array of opportunities for criminals across the continent. Many of these opportunities lie in the trade's invisibility. Its low profile nature contrasts with crimes such as drugs and arms, as the examples of organised crime that attract most attention and those with the most immediate impact in terms of associated violence.

This contrast has contributed to the tendency of policy-makers and practitioners not to prioritise the illicit cigarette trade in the same was as other forms of organised criminality. As a result, across Europe, **the illicit cigarette trade has been able to operate under the radar** of law enforcement, as part of an unseen, unheard dimension of organised crime – one that offers perpetrators substantial profits, and entails little in the way of risks.

Exacerbating this situation is the trade's acceptability. As noted, illicit trade – in cigarettes and other consumer goods – is largely viewed as a victimless crime **committed by tax evaders, not organised criminals**. Research conducted in 2016 on behalf of the European Commission reveals a clear gap between the reality of the illicit cigarette trade and Europeans' perceptions of the issue. When asked about the main problems caused by the illicit cigarette trade, most respondents identified the loss of taxes for the state.[2] Only a small proportion recognised the trade as a key revenue source for OCGs.[3]

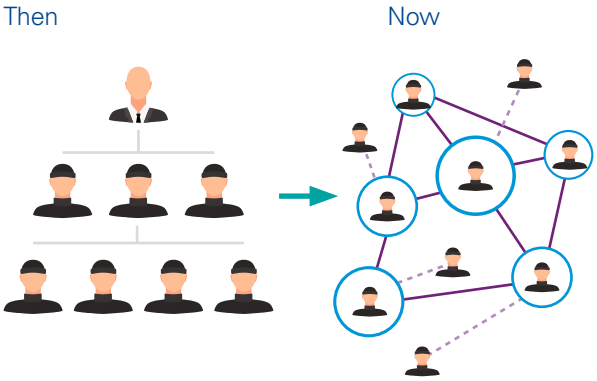
This perception owes in part to the trade's growing accessibility to EU publics and **ability to mirror legitimate business practice**. As technology, infrastructure and regulation have advanced to facilitate global commerce, OCGs have found ways to exploit these same mechanisms.[4] Most notably, the Internet has offered criminals new transportation channels, as well as easier access to new markets across Europe.[5] With the click of a mouse, delivery by courier, and online customer reviews, they can harness technological advances, whilst operating under the thresholds of customs and law enforcement.[6]

Groups

OCGs have evolved to harness these opportunities in a number of clearly discernible ways. Most notably, a shift in structure, towards 'loose, undefined and flexible networks'[7] has facilitated their activity in this form of trade. Such 'networked' models represent an **evolution from more traditional, strictly hierarchical OCG models**. This shift has been identified across Europe's organised crime landscape more broadly: Europol's 2013 and 2017 Serious and Organised Crime Threat Assessments (SOCTA) both note the emergence of 'smaller groups and loose networks supported by individual criminals, who are hired and collaborate *ad hoc*'.[8]

The SOCTA 2013 observes further that such forms of organisation 'exemplify a level of criminal intent, expertise, experience and sophistication that is aligned with the challenges and opportunities present in modern environments … characterised by dynamic change, greater mobility and connectivity'.[9] Such challenges and opportunities are clearly inherent in today's illicit cigarette trade. Indeed, the evolution to a 'networked' model offers a number of significant advantages to OCGs involved in C&C smuggling in today's globalised context. First, **in contrast to closed groups, a networked model engenders cooperation**, which is extremely valuable for cross-border illicit trade, including in cigarettes. Second, it facilitates an entrepreneurial approach among both individual criminals and OCGs. Most notably, it permits groups access to individuals with certain skill sets as and when they need them, whether in producing illicit products, obtaining false documentation or navigating EU tax regulations.[10]

Organised Crime Group structure



Researcher Maarten Van Dijck testifies to this shift in OCG structures. He notes that OCG membership in this area tends to be determined on the basis of **defined roles for defined operations**, with OCG structures fluctuating over time and between operations.[11] Van Dijck observes that relations between those engaged in cigarette smuggling tend

Sources: *(1) Edwards and Jeffray, 'On Tap', p. x. (2) European Commission, 'Special Eurobarometer 443'. (3) Ibid. (4) Ellis, 'On Tap Europe', p. ix. (5) Europol, SOCTA 2017. (6) Edwards and Jeffray, 'On Tap', p. 3. (7) Europol, Exploring Tomorrow's Organised Crime (The Hague: European Police Office, 2015), p. 12. (8) Europol, SOCTA 2017, p. 14. (9) Europol, SOCTA 2013, p. 33. (10) Ellis, 'On Tap Europe', pp. 11–12. (11) Maarten Van Dijck, 'Cigarette Shuffle: Organising Tobacco Tax Evasion in the Netherlands', in P C van Duyne (ed.), The Criminal Smoke Of Tobacco Policy Making: Cigarette Smuggling in Europe (Nijmegen: Wolf Legal Publishers, 2009), pp. 187–88.*

RUSI Analysis: Organised Crime and the Illicit Cigarette Trade in Europe (cont.)

to be transactional in nature, with individuals hired for specific tasks, as demand requires. Criminal co-operation structures in this field, he notes, 'are mostly ad hoc or of undetermined durations as long as a certain composition of people yields success'.[12]

Recent research into the scale, composition and operational capabilities of OCGs involved in the illicit cigarette trade supports this assessment. For example, RUSI research in the UK details enforcement operations against OCGs with transient structures, in which members maintain defined roles for particular tasks. These groups consisted of two to six 'core' members plus a network of facilitators, often based overseas in source countries such as China and Malaysia.[13] The research also highlights **the use of non-criminals to facilitate C&C smuggling**, from hiring drivers unaware of the content of their loads to bribing or forcing members of the public to act as 'mules'.[14]

Not all OCGs engaged in cigarette smuggling fit this mould. Enforcement operations in the UK have also uncovered larger, established OCGs overseeing entire smuggling supply chains.[15] The Financial Action Task Force (FATF) notes that the degree of **involvement depends on the size, ambition and capabilities of a particular group**. Some larger OCGs, it observes, 'manage all aspects of the production process, from sourcing raw tobacco product, through to developing specific tobacco packaging that will generate suitable market interest and/or appear legitimate if counterfeit product'.[16]

Yet it is clear that **only a small number of OCGs are capable of organising the entire life cycle** of the operation, from manufacture through to distribution. A much larger number, FATF notes, are less ambitious in their scope, operating in a looser, networked manner. In their activities, they 'rely on the work of key facilitators, often based overseas, who engage with smaller legitimate tobacco manufacturers in sourcing the tobacco goods and associated packaging'.[17] Relations between them are fluid, lasting as long as a particular supply chain remains viable.

A series of recent cases testifies to the presence of **short-term cooperative arrangements between OCGs**, which last as long as they yield results. In Spain, where C&C accounted for 4.6% in 2016, a 2014 operation by the Spanish Civil Guard uncovered links between three OCGs trading in illicit tobacco; these OCGs were found to be distinct, trading with one another in this enterprise as partners in business[18]

In Poland – where C&C accounted for 15.0% of consumption in 2016 – field research reveals a practice whereby **OCGs import a labour force of 'technicians'** and criminals with particular areas of expertise in cigarette manufacturing. These individuals are brought in from other countries on a contractual basis, with the added benefit of reducing the risk to OCGs where they are unknown to Polish authorities.

In Greece, where C&C represented 18.8% of consumption and high volumes of illicit whites were recorded in 2016, **groups are known to cooperate and divide labour along the C&C supply chain** on the basis of nationality. Researchers Dionysios Chionis and Anastasia Chalkia note that 'Greeks usually are the leaders, as far as the selling of tobacco in Greece is concerned or taking care of the transportation by trucks to another European country, while foreigners are responsible for the import'.[19] As such, for the purposes of forming an effective C&C supply chain, OCGs are 'divided into those that deal with the illegal importation and transfer of the tobacco from abroad to Greece or to Northern and Western European markets, and those that deal exclusively with the selling of tobacco products in Greek markets'.[20] Cooperation between them is essential, with groups specialised in different phases, and handing over to others at the appropriate stage.[21]

Flexibility in OCG membership structures and cooperative arrangements is increasingly matched by fluidity in their portfolios of activities. Recent research suggests that many of the **groups engaged in the illicit cigarette trade have moved away from higher-risk activities** such as drug trafficking. This reflects the relatively low-risk nature of illicit trade in lawful commodities such as cigarettes, relative to trade in illicit goods such as narcotics and arms.[22] In particular, the former carries a lower risk of detection by authorities, and typically less severe sanctions. The profits to be made, however, are often just as significant as those attached to higher-risk forms of crime.

In terms of potential revenues, the attraction of illicit cigarettes, in particular, is clear. They have low production costs, are lightweight and easy to transport, yet have **high sale value and retain consistent consumer demand**.[23] Such characteristics have the potential to substantially alter criminals' risk–reward calculi. Attracted by the low-risk, high-reward nature of cigarette smuggling, many OCGs have re-oriented their activities accordingly.

Sources: (12) Ibid. (13) Edwards and Jeffray, 'On Tap'. (14) Ibid. (15) Ibid. (16) Financial Action Task Force, 'Illicit Tobacco Trade', June 2012, p. 7. (17) Ibid. (18) For details of this case, see Ellis, 'On Tap Europe: Organised Crime and Illicit Trade in Spain', p. 18. (19) Dionysios Chionis and Anastasia Chalkia, 'Illicit Tobacco Trade in Greece: The Rising Share of Illicit Consumption during Crisis', Trends in Organized Crime (Vol. 19, No. 3, December 2016), p. 7. (20) Ibid, p. 7. (21) Jeffray, 'On Tap Europe: Organised Crime and Illicit Trade in Greece', p. 21. (22) Edwards and Jeffray, 'On Tap', p. 69. (23) Sharon Melzer and Chris Martin, 'A Brief Overview of Illicit Trade in Tobacco Products', in OECD, Illicit Trade: Converging Criminal Networks (Paris: OECD Publishing, 2016), p. 143.

This situation is evident in countries such as Romania, where 16.4% of total cigarette consumption in 2016 was illicit. Here, authorities have observed a distinct shift on the part of OCGs active in the country away from activities such as drug trafficking into cigarette smuggling – a trend accompanied by rising illicit cigarette consumption across the country. Yet **this trend is at different stages across different EU countries**. In both Greece and Spain, for instance, there is little evidence of a decisive shift away from such higher-risk forms of organised criminality. Instead, OCGs active in these locations are thought to have embraced the illicit cigarette trade alongside other crime types.

In such cases, OCGs traditionally engaged in higher-risk activities have begun to smuggle cigarettes in parallel to their existing activities. Similar polycriminality is observed across source, transit and destination states across Europe. In Poland, for example, enforcement agencies report **OCGs shifting between illicit cigarettes and other commodities** fluidly over time.[24] Here, OCGs are thought to move between products both high- and low-risk, as demand, opportunities and potential profits dictate.

Such overlaps are commonly seen where OCGs trade in illicit cigarettes alongside commodities such as illicit fuel, alcohol and pharmaceuticals. A telling example from Poland is the case of an illicit cigarette factory, which was discovered at the site of a former illicit alcohol factory. Both were run by the same OCG, with products distributed via the same network.[25]

Overlaps with broader organised crime activity are also apparent. RUSI field research has found evidence of overlaps with activity such as the trafficking of narcotics, alongside other forms of illicit trade. This is illustrated by a 2014 operation by Spain's Civil Guard, which saw the seizure of 5 million illicit cigarettes with a value exceeding €1 million from a network also involved in distributing counterfeit clothing and producing marijuana.[26] Where illicit trade overlaps with broader organised crime activity, these links can take different forms. Most commonly, OCGs use established smuggling routes and infrastructure for different products as opportunities arise.

In addition, **profits from one crime area can be used as initial finance for other activities** – effectively providing 'start-up capital'. This allows OCGs to diversify into new areas before they themselves become profitable. Across Europe, there is evidence of the illicit cigarette trade initially being funded by – and used to fund – other areas of crime such as narcotics trafficking, as risks and potential profits in any one location dictate.[27]

Where larger OCGs are involved, enforcement agencies have noted their **capacity to remain active in multiple crime types simultaneously**. In effect, they operate as distinct smaller groups, each focusing on a single crime type, with the network's senior personnel providing oversight and coordination.[28] This networked approach ensures that OCGs can benefit from the expertise of their members in relation to specific crimes, while capitalising on established transit routes and methods to facilitate multiple areas of activity. The parallels with legitimate business practice are evident, with activity driven by market demand and the largest groups diversifying to exploit multiple opportunities.

Routes and Methods

The flexibility and agility witnessed in the groups involved in the illicit cigarette trade are mirrored in the modi operandi involved in producing, importing, transporting and distributing illicit cigarettes. A notable trend has seen OCGs engaged in the illicit cigarette trade grow **increasingly diverse in the products they manufacture, transport and sell**; and in the routes and methods they employ.

SUN results for 2016 clearly demonstrate this trend. The data reveal shifts on previous years in the volume of C&C originating outside the EU, as well as **changes in the brands and origins of cigarettes** supplied in key illicit trade hotspots. Illustrative of this is the substantial rise shown by 2016 Project SUN data in the illicit whites brands Marble and Regina – up by 3 billion on 2015 – against a decline in American Legend of 1.4 billion. In Naples, Marble and Regina emerged at a full 34% of illicit whites brands in 2016, marking a significant shift on previous years. In terms of origins, 2016 has seen further substantial shifts. Since 2012, the volume of illicit cigarettes originating from Ukraine has increased by 1.3 billion, with those from Belarus declining by 1.8 billion over the same period.

These findings indicate clearly OCGs' **use of diverse supply chains, routes and methods** in serving local markets. Such shifts occur as they diversify their goods and techniques in response to both evolving consumer tastes and law-enforcement action. This diversification affects both of the principal modalities used by OCGs involved in the illicit cigarette trade: C&C smuggling – within and beyond the EU – and illicit C&C production. Key trends in relation to both are examined below in turn, as well as shifts in the locations and routes on which these processes depend.

Sources: *(24) Jeffray, 'On Tap Europe: Organised Crime and Illicit Trade in Poland'. (25) Ibid. (26) For details, see Ellis, 'On Tap Europe: Organised Crime and Illicit Trade in Spain', p. 18. (27) Jeffray, 'On Tap Europe: Organised Crime and Illicit Trade in Greece'. (28) Ellis, 'On Tap Europe: Organised Crime and Illicit Trade in Spain', p. 4.*

RUSI Analysis: Organised Crime and the Illicit Cigarette Trade in Europe (cont.)

Smuggling

Smuggling remains an intrinsic part of the illicit cigarette trade. It remains key to facilitating the entry of illicit products into the EU and their onward transport towards more lucrative markets. C&C is often smuggled into the EU via shipping containers, exploiting member states' busy ports and the inability of law enforcement to inspect all containers. Recent investigations highlight the growing sophistication of container smuggling as OCGs adopt a range of techniques to avoid interception.

Many of these revolve around concealing illicit cigarettes among legal, declared products. Recent investigations have uncovered C&C travelling alongside insulating materials in Spain; equestrian equipment in Portugal; and Xerox paper, cement and hollowed-out logs in Romania.[29] In this scenario, illicit **goods are unlikely to be uncovered through cursory visual inspection** by law enforcement. They remain vulnerable, however, to scanning equipment where this is installed at ports of entry.

At other times, **OCGs seek to protect their cargo by transporting two containers**. One of these carries legal, low-value goods; the second contains illicit cigarettes. Here, the identifying numbers for the containers are switched partway through transport towards their final destination. This enables illicit cigarettes to arrive in port under papers declaring legal goods.

OCGs also establish 'legal' businesses to obscure their activities. In Greece, Chionis and Chalkia note that OCGs may buy established companies, or start new ones, which are involved in perfectly legitimate import and export by container, thereby providing a cover for their smuggling activities.[30] They give the example of a recent case in which 'the leaders of a criminal group had established several companies in Greece and Bulgaria and … used them to send products along with illicit tobacco'.[31] A range of other cases across Europe highlight such a move to co-opt legitimate business, with OCGs increasingly engaged in the legal market, using non-criminal experts and structures to support their smuggling activities.

In addition, OCGs use a shifting set of techniques specifically to obscure containers' original point of departure. Containers often transit multiple jurisdictions, travelling via complex routes, which are frequently altered.[32] **Free-trade zones (FTZs) both within and beyond the EU are used** to disguise the original point of manufacture, with containers redocumented whilst inside the zone.[33] FTZs have grown dramatically over the past three decades to become an integral part of global trade. As they have encouraged trade, however, OCGs have succeeded in exploiting their weaknesses to conceal their activities, including in the illicit cigarette trade.

Research conducted by Transcrime on illicit tobacco flows into the EU found that **almost all significant origin and transit points host FTZs**.[34] In 2014, the World Customs Organization's Operation Gryphon confirmed the practice of repackaging tobacco products within FTZs, with illicit products leaving the zones either misdeclared or concealed within other shipments.[35] Numerous recent seizures of containers carrying illicit cigarettes have transited FTZs worldwide. Recent seizures in Greece, for example, have involved containers transiting the FTZs of Jebel Ali in the United Arab Emirates, and Pasir Gudang and Port Klang in Malaysia.

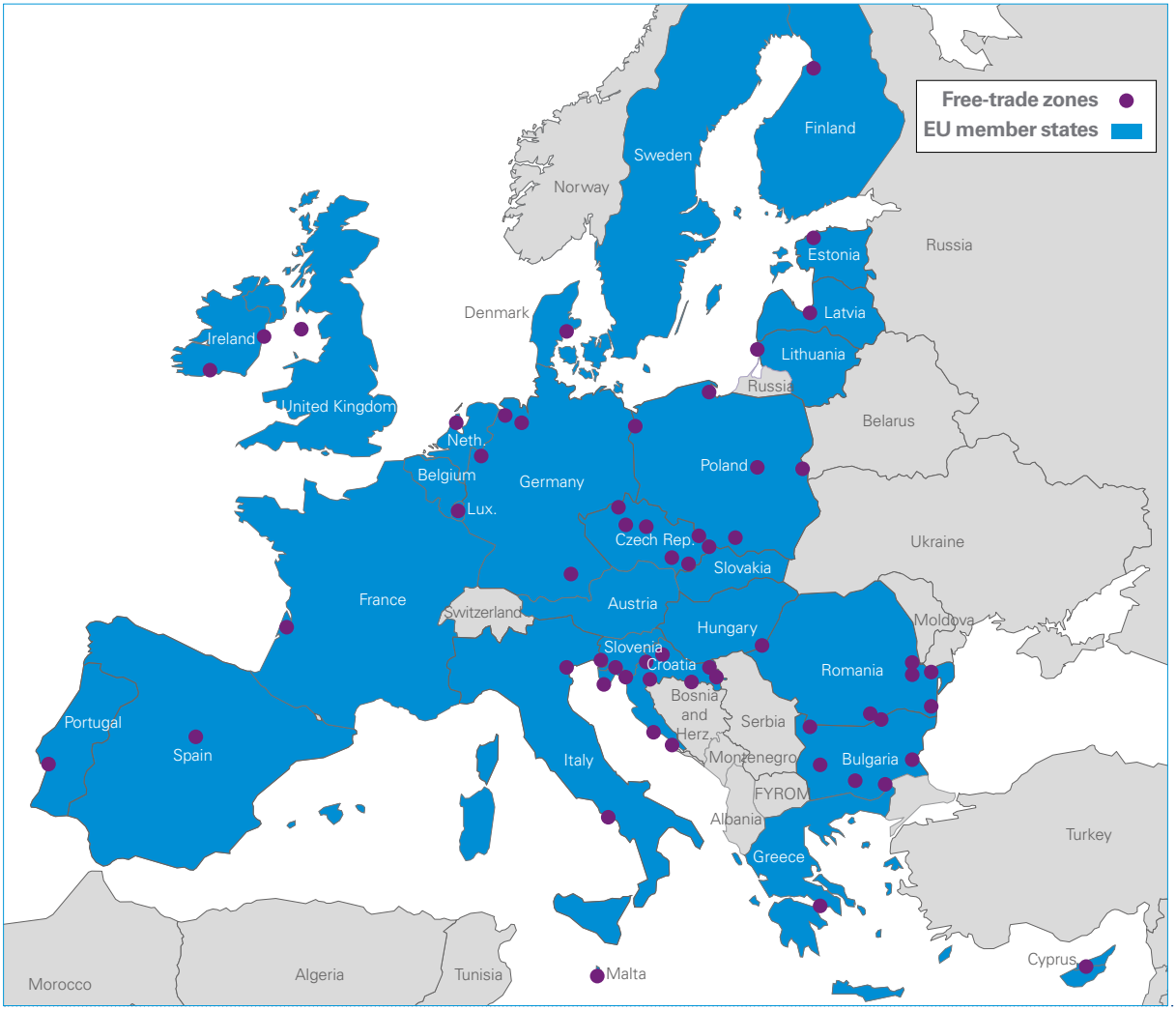
Shifting sea routes to exploit FTZs reflects a broader agility and ability to capitalise on security vulnerabilities along the C&C supply chain. Such a trend has been mirrored in the flexible land routes used by cigarette smugglers. In a number of cases, **strengthened border controls and scanning equipment have had a 'balloon effect'** at external EU borders. This has seen the displacement of smuggling routes to other external – and often internal – EU borders, where border controls pose a lesser threat.

Such an effect has been visible in Poland, at the country's eastern borders. Here, as stronger controls and new x-ray equipment at the external EU border with Belarus have posed greater risks to OCGs, the country's Lithuanian border has started to witness increased smuggling activity, with goods first having entered the EU through the latter country. At the Lithuanian border, **Schengen rules mean that only 5% of vehicles can be stopped and searched**. Depending on controls at Lithuania's external borders, this presents a more conducive option than Poland's EU external border, where an average 35% of incoming trucks are now scanned.

By both sea and land, another key shift has seen OCGs engage in the illicit cigarette trade as an **increasingly low-volume, high-frequency activity**. This has occurred as OCGs have registered the

Sources: *(29) Ellis, 'On Tap Europe: Organised Crime and Illicit Trade in Spain'; Jeffray, 'On Tap Europe: Organised Crime and Illicit Trade in Greece'. (30) Chionis and Chalkia, 'Greece: The Rising Share of Illicit Consumption in a Time of Crisis', p. 229. (31) Ibid. (32) OECD and the European Intellectual Property Office (EUIPO), Trade in Counterfeit and Pirated Goods: Mapping the Economic Impact (Paris: OECD Publishing, 2016), pp. 76, 82. (33) Ellis, 'On Tap Europe', pp. 25–29; World Economic Forum Global Agenda Council on Organized Crime, 'Organized Crime Enablers', July 2012, p. 21; International Chamber of Commerce, Business Action to Stop Counterfeiting and Piracy (BASCAP), 'Controlling the Zone: Balancing Facilitation and Control to Combat Illicit Trade in the World's Free Trade Zones', May 2013, p. 6. (34) Transcrime, European Outlook on the Illicit Trade in Tobacco Products, p. 44. (35) World Customs Organization (WCO), 'WCO Announces the Results of its First Global Operation Against Illicit Trade in Tobacco', 13 October 2014.*

Free-trade zones



Source: *'On Tap', Europe*

difficulties faced by law-enforcement agencies when goods are broken up and transported in numerous, smaller consignments. As they have, large consignments have started to be replaced by more flexible, 'little and often' smuggling modalities. Of course, these may increase the costs incurred by criminals in transporting C&C. Yet the fact that such consignments do not reach authorities' thresholds significantly lowers the chances of interception, thus enhancing the profits to be made.[36]

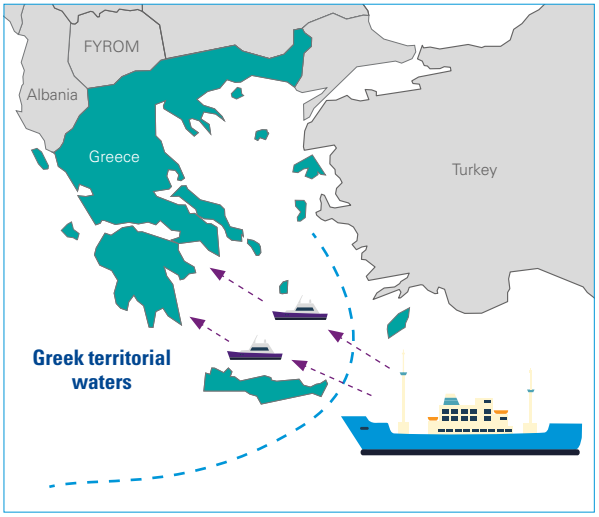
Examples of the shift to 'little and often' smuggling abound. Illustrations include coordinated 'ant-smuggling' from Gibraltar and Andorra into Spain, and pedestrian smuggling by ferry from Corfu into Italy. C&C has been found in small volumes moving from Moldova to Romania by motor vehicle, train, plane and truck; dropped by boat on Italian beaches by night; and transported by pedestrians on airlines and ferries in Poland. In each case, the 'fragmentation' of smuggling visible represents a low-risk strategy for the groups involved, minimising losses in the event of detection.

Such techniques are adapted to exploit the vulnerabilities of the context in question. OCGs conduct frequent 'test runs' and experiment with different transport combinations to discover what they can get away with on a particular route.[37] In Greece, for example, **an emerging OCG tactic is to combine small- and large-scale smuggling** by sea. This is done to exploit the Hellenic Coast Guard's limited sphere of action, which is restricted to territorial waters extending 6 nautical miles, in accordance with a bilateral agreement with Turkey.[38] OCGs respond to this vulnerability by positioning larger vessels just beyond Greek territorial waters. They then use numerous, high-speed boats to transport smaller volumes of C&C to small Greek ports or isolated beaches, where lorries await for onward transport.

Sources: *(36) Edwards and Jeffray, 'On Tap', p. 69. (37) Edwards and Jeffray, 'On Tap', p. 72.*

RUSI Analysis: Organised Crime and the Illicit Cigarette Trade in Europe (cont.)

Smuggling by sea



Nowhere is the issue of 'little and often' smuggling more evident than in consignments by post and courier. Capitalising on the growth of e-commerce, the postal system has grown increasingly popular as a method of delivery of legitimate goods to customers, yet **there are numerous reports of the system being used throughout the C&C supply chain**. This trend is visible across Europe; in Poland, for example, Transcrime notes that 'The exploitation of the internet and of postal services by [groups involved in the illicit trade in tobacco products] is increasingly common'.[39] In Italy, customs are aware of illicit cigarettes posted from parts of Asia, with the country acting as a transit point en route to more lucrative EU markets.[40]

Given the sheer scale of this sector, law-enforcement efforts here are time-consuming and resource-intensive. OCGs are increasingly aware that only a small percentage of parcels can be subjected to detailed inspection, and that **authorities are reliant on prioritisation and risk assessments**, set on the basis of thresholds. Little-and-often smuggling by post allows OCGs to operate well under these thresholds; flooding the system at low volume allows them to hide illicit goods in plain sight. Even if a parcel is detected, the low quantity of goods contained represents a small loss, especially when considered against the number of parcels *successfully* delivered in the same timeframe.

Illicit Production

In addition to smuggling completed products into the EU, **there is growing evidence of illicit production within member states**. Such a modus operandi serves to reduce both transport costs and the risks associated with transiting the EU's external borders.[41] Across Europe, this practice may be expanding as external border controls are strengthened. Yet increasing detection may owe more to improved law enforcement in key locations than a greater number of facilities; it is thus difficult to determine an escalation in the rate of establishment of illicit factories based on existing data.

It is nonetheless clear that OCGs continue to invest heavily in illicit production facilities across Europe. This decision is calculated; the risk associated with importing raw materials is substantially lower than for completed illicit cigarettes, since components such as cigarette paper and cellulose acetate tow are not subject to comparable regulation.[42] Testament to this fact, **factories have been discovered across a range of EU states** producing counterfeit versions of legitimate brands, illicit whites and fine-cut or handrolling tobacco. Often using crude materials, outdated machinery and in unsanitary conditions, such facilities range from small operations in a single room, basement or garage, to industrial-scale factories.

In some cases, it is only the final assembly of component parts that is conducted within the EU. In 2013, for example, Belgian customs disrupted an international OCG smuggling counterfeit pouches, tax stamps and tobacco in separate shipments from China. They were ultimately destined for the UK, where they were intended to be assembled locally before sale.[43]

Other factories in Europe specialise in only one part of the production process. Recent cases in Poland, for instance, have seen the **detection of printing factories producing only fake cigarette packaging**.[44] The OCGs involved can then transport these component parts for manufacture closer to the intended point of sale, minimising risk while the goods are in transit.

Finally, **end-to-end industrial-scale factories exist** to process raw tobacco, fill tubes and print packaging. An operation in July 2016 by Spain's Tax Agency and National Police uncovered three such industrial premises in the provinces of Málaga, Toledo and Salamanca. Between them, they covered the full manufacturing process; the plants featured machinery for chopping and mixing tobacco, rolling cigarettes, and manufacturing packaging complete with health messages for different countries.[45]

Sources: *(38) Jeffray, 'On Tap Europe: Organised Crime and Illicit Trade in Greece'. (39) Transcrime, The Factbook on the Illicit Trade in Tobacco Products, p. 8. (40) 'On Tap Europe: Organised Crime and Illicit Trade in Italy', RUSI Occasional Papers (forthcoming). (41) Europol and the Office for Harmonization in the Internal Market, '2015 Situation Report on Counterfeiting in the European Union', p. 44. (42) Transcrime, European Outlook on the Illicit Trade in Tobacco Products, p. 59. (43) Ibid, p.28. (44) Jeffray, 'On Tap Europe: Organised Crime and Illicit Trade in Poland', p. 24. (45) For more details, see Agencia Tributaria [Tax Agency], 'Three Secret Tobacco Factories Dismantled and 39 Tons of Contraband Tobacco Seized', 11 July 2016.*

Engagement in illicit production does not take place across the EU uniformly, however. Illicit production is considered an emerging trend in Spain, for example, but already makes up a significant element of the threat in Poland, where an estimated 41 factories were closed down in 2015 alone. Where better established, however, protective measures are evolving and more sophisticated techniques developing. In parts of Poland, factories are thought to move as regularly as every three months to evade detection. Across the EU, OCGs also use a variety of physical measures to protect their premises, from concealing factories in farm buildings to installing soundproofing and electronic security devices, and forcing workers to live in factories.

Flexibility in the procurement of machinery and use of raw materials is also apparent. **In some cases, machinery and expertise are readily available domestically**; in others they have to be imported from abroad. In terms of raw materials, there is evidence that some European tobacco is used by OCGs; the three factories uncovered in Spain in July 2016 used tobacco leaves (and machinery) from Bulgaria in manufacturing their products.[46] However, OCGs also import vast quantities from outside the EU, for reasons of price, accessibility and in some cases quality.

Another striking development lies in evidence that the market increasingly guides production and that factories themselves are often only established once the rest of the supply chain has been put in place. Setting up a factory requires a significant financial investment and, as such, the **factories themselves are usually the last link in the supply chain to be established**. Often, OCGs will only 'sponsor' a factory and employ a 'factory manager' to look after production once the final buyer and/or destination market has been identified. Distribution dictates production, so that a batch of stock will be made to order with the health warnings in the correct language, or with the counterfeit duty-free markings for the destination market already prepared.

This reflects a broader trend whereby **OCGs are becoming more responsive to consumer demand**. Rather than import in bulk, such groups increasingly cater specifically to the characteristics of the local market, operating according to a 'made to order' modality. This is the case where OCGs control distribution, thus witnessing trends in consumption. In some cases, certain types of illicit white cigarettes have become so popular that their brand has become well known in consumer markets.[47] OCGs can exploit these preferences, whilst also diversifying consumer tastes with new brands and products.

Enablers and Responses

The above analysis paints a picture of **dynamic, shifting and ever-more responsive OCG-controlled supply chains**, which are increasingly difficult to police. In particular, the diversification in practices employed in producing, importing and transporting illicit cigarettes limits law enforcement's ability to stay on top of the multitude of new products, routes and methods employed by criminals. Meanwhile, the rise of low-volume, high-frequency smuggling challenges enforcement approaches based on risk profiling, and the use of both quantitative and qualitative thresholds.

Across Europe, **this is not the organised crime threat that law-enforcement agencies were designed to tackle**. Where OCGs engaged in illicit trade are agile, quick to capitalise on new opportunities and able to rapidly diversify their activities, law enforcement responses typically do not mirror this flexibility, having been developed to tackle more 'traditional' forms of crime.[48] In this context, attention must focus on the factors both hindering effective responses and enabling the illicit cigarette trade across Europe. These factors allow the trade to prosper uninhibited, as an unseen, unheard threat to citizens' security.

Many of the factors facilitating the illicit cigarette trade derive directly from the global environment in which the trade thrives. Indeed, as **technology, infrastructure and regulation have evolved** to facilitate legitimate business and cross-border trade, OCGs have found ways to exploit these same mechanisms. As they have, the Internet and social media, e-commerce and the corresponding growth in postal and courier services have become unintentional enablers of the illicit market. Together, they have changed the way in which organised criminals do business. With the click of a mouse, delivery by Parcel Force or FedEx, and online customer reviews, they allow the illicit cigarette trade to persist, out of the reach of law enforcement.[49]

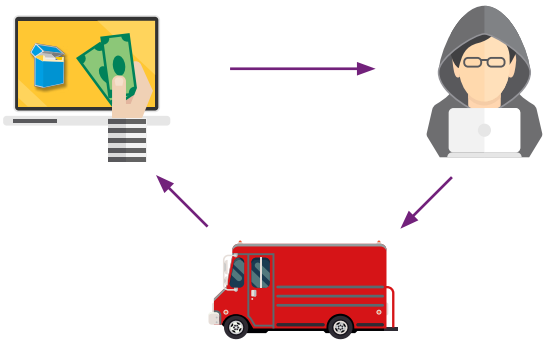
The online sale of illicit goods, in particular, offers numerous advantages to OCGs. First, it increases their potential consumer base, removing geographic restrictions and making their products more easily accessible to new customers. Second, online distribution incurs minimal running costs by comparison to physical retail. Third, although more easily detectible by law enforcement, the Internet offers significant anonymity, especially where domains are registered using false identities and locations are obscured using proxy servers. And fourth, the disruption caused by law-enforcement

Sources: *(46) Ibid. (47) Public Accounts Committee, HM Revenue and Customs: Progress in Tackling Tobacco Smuggling, HC 226 (London: The Stationery Office, June 2013), p. 10. (48) Ellis, 'On Tap Europe', p. 1. (49) Edwards and Jeffray, 'On Tap', p. 3.*

RUSI Analysis: Organised Crime and the illicit cigarette trade in Europe (cont.)

action can be minimised, with dismantled websites quickly re-established.[50]

Online illicit cigarette trade



While the Internet has facilitated sales, **postal and courier services enable under-the-radar deliveries**. Across Europe, evidence of the increasing use of postal and courier systems to transport illicit cigarettes is clear. From 1 April 2015 to 31 March 2016, 32 million cigarettes and more than 23 tonnes of handrolling tobacco were seized at international postal hubs in the UK alone.[51] During fieldwork, Romanian law enforcement described the delivery of 32,000 cartons of cigarettes by couriers in a single investigation. In Poland, the Ministry of the Interior has repeatedly highlighted this growing trend from 2010 onwards, linking it to the increasing prevalence of online sales.[52]

To date, the abuse of such mechanisms has largely been considered only once exploitation is apparent, with enforcement agencies retrofitting countermeasures. However, security must now be considered from the outset, such is the scale and impact of organised crime activity associated with the illicit cigarette trade. As part of this, **emerging vulnerabilities must be anticipated**. In anticipation of just one emerging threat, regulation around the operations of small, private courier companies should be reviewed. These companies represent a growing risk, as small vans regularly transport hundreds of parcels across borders after collecting only minimal details from senders.

Other mechanisms to promote global trade must similarly be addressed as unintentional enablers. OCGs' ability to exploit simplified administrative procedures and **limited oversight at FTZs, in particular, stands out as a vulnerability**. In 2010, FATF identified systemic weaknesses that render FTZs vulnerable to exploitation by OCGs. These ranged from relaxed oversight by competent domestic authorities, to weak procedures to inspect goods and register legal entities – including inadequate record-keeping and IT systems – and a lack of coordination and cooperation between zone and customs authorities.[53]

As noted previously, OCGs can exploit these weaknesses to facilitate and conceal their involvement in the illicit cigarette trade. This is reflected in Project SUN data for 2016; the figures for Greece, as just one example, highlighted the presence of 0.3 billion illicit Gold Mount cigarettes, believed to be manufactured in the Jebel Ali FTZ in the UAE. **FTZ warehousing facilities are known to be used in the manufacturing process**, with storage and distribution facilities also used for product repackaging or relabelling.[54] FTZs are further used as a means to disguise the original point of manufacture, with containers transiting multiple ports or being re-documented whilst in the zones.[55] This creates significant challenges for customs authorities when the goods are finally imported: the point of origin is an important indicator in the risk profiling that determines which containers should be subject to inspection.[56]

While FTZs are an important part of global trade, it is therefore clear that the balance has not yet been found between facilitating trade and ensuring security. Yet states are unlikely to act alone in pushing for greater regulation of FTZs: national measures would reduce efficiency, driving legitimate business to competing free zones. Instead, **clear, unambiguous global regulation is required**, establishing enforceable international standards applicable to all FTZs worldwide. The World Customs Organization is ideally placed – but currently too weak – to impose international change and should be reformed, following the model provided by FATF in regulating the international financial system.

Both within and beyond FTZs, a further enabler on which OCGs involved in the illicit cigarette trade rely

Sources: *(50) Europol and the Office for Harmonization in the Internal Market, '2015 Situation Report on Counterfeiting in the European Union', pp. 32–33. (51) Independent Chief Inspector of Borders and Immigration, An Inspection of Border Force Operations at Coventry and Langley Postal Hubs: March to July 2016 (London: The Stationery Office, 2016), p. 23. (52) See, for example, Ministerstwo Spraw Wewnetrznych i Administracji [Ministry of the Interior and Administration], 'Raport o stanie bezpieczenstwa w Polsce w 2010 roku [Report on the State of Security in Poland in 2010]', p. 165; Ministerstwo Spraw Wewnetrznych i Administracji [Ministry of the Interior and Administration], 'Raport o stanie bezpieczenstwa w Polsce w 2012 roku [Report on the State of Security in Poland in 2012]', p. 186; Ministerstwo Spraw Wewnetrznych i Administracji [Ministry of the Interior and Administration], 'Raport o stanie bezpieczenstwa w Polsce w 2014 roku [Report on the State of Security in Poland in 2014]', pp. 171–172. (53) Financial Action Task Force (FATF), 'Money Laundering Vulnerabilities of Free Trade Zones', March 2010; Europol and the Office for Harmonization in the Internal Market, '2015 Situation Report on Counterfeiting in the European Union', p. 16. (54) Ellis, 'On Tap Europe', pp. 25–29; World Economic Forum Global Agenda Council on Organised Crime, 'Organised Crime Enablers', July 2012, p. 21; BASCAP, 'Controlling the Zone', p. 6. (55) Ellis, 'On Tap Europe', pp. 25–29; World Economic Forum Global Agenda Council on Organised Crime, 'Organised Crime Enablers', July 2012, p. 21; BASCAP, 'Controlling the Zone'. (56) Ibid.*

is corruption. This has the potential to facilitate the trade at any stage in the supply chain, but it is perhaps of greatest concern at the EU external border. Here, **corrupt officials can undermine otherwise strict controls** and enable the EU's outer defences to be easily breached by OCGs importing illicit cigarettes, amongst other commodities. While some corrupt officials are prosecuted, there are reports of many more cases where corrupt officials are quietly transferred or dismissed and concerns that yet more remain undetected.

The scale of corruption at the EU border is thus difficult to quantify. Yet its role in facilitating the smuggling of C&C – amongst other illicit commodities – is becoming increasingly difficult to ignore. Corruption is proven, for example, to have facilitated cigarette smuggling in a number of recent cases. In Romania, corrupt officials from customs and the border police were sentenced to between four and five years' imprisonment after it was established that they had been assisting an international OCG to smuggle counterfeit cigarettes and perfume into the EU.[57] In Greece, officers of the Hellenic Coast Guard were arrested for providing information to OCGs that enabled them to smuggle illicit tobacco into the country.[58] Albanian OCGs are similarly known to bribe police and customs officials so that they will not interfere with the transport of illicit tobacco.[59]

In line with this, research conducted by the Center for the Study of Democracy found that '**trafficking in cigarettes has become one of the biggest and fastest growing drivers of corruption** along the EU's eastern land borders, as well as at some major ports in Western Europe'.[60] Contrasting illicit trade with narcotics trafficking, the report highlighted the relative absence of social stigma as an enabling factor, alongside the limited consequences in the case of detection. This is clear in the fact that while officials convicted of facilitating drug trafficking are likely to receive prison sentences, those facilitating the illicit cigarette trade are unlikely to be treated with such severity.[61]

This lack of stigma links into a further enabling factor which OCGs involved in the illicit cigarette trade can easily exploit. This relates to the social acceptability of purchasing illicit cigarettes. As described previously, research has shown that **EU citizens are often quick to excuse involvement in the illicit cigarette trade**, believing it to be out of necessity and blaming limited employment opportunities following the 2008 economic crisis. In Spain, for example, a 2013 survey by the think-tank Think-Com found that as many as 41% of Spaniards do not have a negative opinion of tobacco smuggling.[62]

A similar challenge concerns the acceptability of illicit loose tobacco. As tobacco consumers have increasingly sought out cost-effective alternatives to traditional products, **there is concern that illicit loose tobacco consumption has been rising**. A 2016 Transcrime study of 15 European countries found that over 48% of the total volume of cut tobacco consumed in 2015 was illicit; in 5 countries this rate was over 75%[63]. Such consumption provides further opportunities for criminals operating in the illicit cigarette market, in many cases allowing them to infiltrate supply chains at source.

Public acceptance and sustained consumer demand for such black market products pose serious challenges to government policy to disrupt the illicit cigarette – and broader illicit tobacco – trade. Crucially, **social acceptability creates an environment in which demand for illicit products is tolerated**. It substantially lowers the psychological barriers for entry into this form of activity, removing further the stigma attached to this crime. Moreover, it increases the size of the market, with more people willing to purchase through such routes.

Alongside measures to detect and disrupt the supply of illicit cigarettes, social acceptability must also be tackled to reduce demand and create a less conducive environment for OCGs engaged in the illicit cigarette trade. Research should be undertaken to understand the most effective means of reducing social acceptability, and therefore demand, for illicit goods. In particular, **there is a pressing need to understand what messages are most effective**, from what sources, through what media and under which circumstances. As recommended by RUSI in 2014, such information should be disseminated using imaginative public-awareness campaigns to change society's perceptions of the illicit cigarette trade and the role of organised crime therein.[64]

Doing little to change public perceptions and acting as a final enabling factor are the low penalties for involvement in the illicit cigarette trade in many EU states. In many countries, weak legislation and **lenient penalties for cigarette smuggling are ineffective in deterring offenders**. In others, a range

Sources: *(57) Ellis, 'On Tap Europe', pp. 21–25; 'On Tap Europe: Organised Crime and Illicit Trade in Romania', RUSI Occasional Papers (forthcoming). (58) See Ministry Of Citizen Protection and Hellenic Coastguard, '[Update on the Dismantling of the Four '4' Criminal Organisations Smuggling Large Quantities of Cigarettes]', 11 November 2011. (59) Europol and the Office for Harmonization in the Internal Market, '2015 Situation Report on Counterfeiting in the European Union', p.42. (60) Center for the Study of Democracy (CSD), 'Study on Anti-Corruption Measures in EU Border Control', March 2012, pp. 46–47. (61 Ibid. (62) ThinkCom.es, 'Estudio Sobre El Consumo de Tabaco Y Alcohol En España [Study on Tobacco and Alcohol Consumption in Spain]', October 2013. (63) Transcrime, 'Bulk Tobacco Study 2015: Assessing the illicit trade and consumption of cut tobacco in 15 markets in Europe', July 2016. (64) Edwards and Jeffray, 'On Tap', p. 76.*

RUSI Analysis: Organised Crime and the illicit cigarette trade in Europe (cont.)

of issues surrounds the inconsistent application of sanctions by the judiciary. This is an issue even where national legislation provides for potentially stringent penalties.

The lenient application of sanctions has been specifically identified as an incentive for OCGs to enter this low-risk, high-reward crime area.[65] At present, not only do sanctions fail to deter new participants, they similarly fail to prevent reoffending. In many European states, the same **individuals are often seen returning to the illicit cigarette trade** following prosecution. Upon resuming their illegal activities, they do so with greater knowledge of law enforcement methods and capabilities, adapting in response and becoming an increasingly difficult target for subsequent investigations.

It is for these reasons that the Protocol to Eliminate Illicit Trade in Tobacco Products addresses the topic of deterrence. It specifies, notably, that offences should be subject to 'effective, proportionate and dissuasive' penalties.[66] The use of financial penalties may help to enhance deterrence in this way: C&C smuggling is driven by profit, so **the threat of financial losses is potentially powerful**. Moreover, the confiscation of assets can disrupt activities, preventing the purchase of ingredients, machinery or replacement stock.

Penalties must also be consistent. It is known that **varying sanctions across member states currently influence decisions by OCGs** about where to conduct operations or which routes to take when transporting goods across the EU.[67] The approach to prosecution and sanction across the EU thus requires reform, with increased standardisation of penalties for engagement in illicit cigarette trade required.

Fundamentally, the rewards for OCGs involved in the illicit cigarette trade remain too high and the risks too low. Until this balance can be altered, the illicit cigarette trade will remain a key aspect of organised crime activity and will continue to pose a threat across the EU. Adjusting the balance will require attention to each of the enablers presented above, and the barriers they create to effective responses. **The aim must be to create a more hostile environment for OCGs** exploiting a trade that, to citizens across Europe, remains invisible, accessible and, most damagingly of all, broadly acceptable.

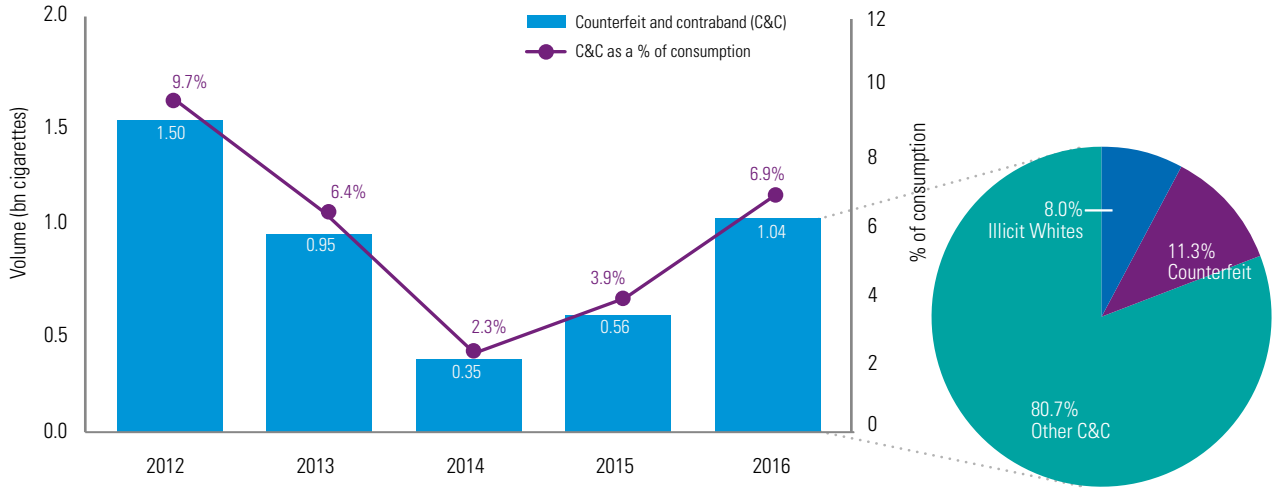
Source: *((65) Melzer and Martin, 'A Brief Overview of Illicit Trade in Tobacco Products', p. 124. (66) See Council of Europe, 'Council of Europe Convention on the Counterfeiting of Medical Products and Similar Crimes Involving Threats to Public Health', Article 12; and Framework Convention on Tobacco Control, Protocol to Eliminate Illicit Trade in Tobacco Products, Article 16, Section 1. (67) Ellis, 'On Tap Europe'.*

Austria

Overview

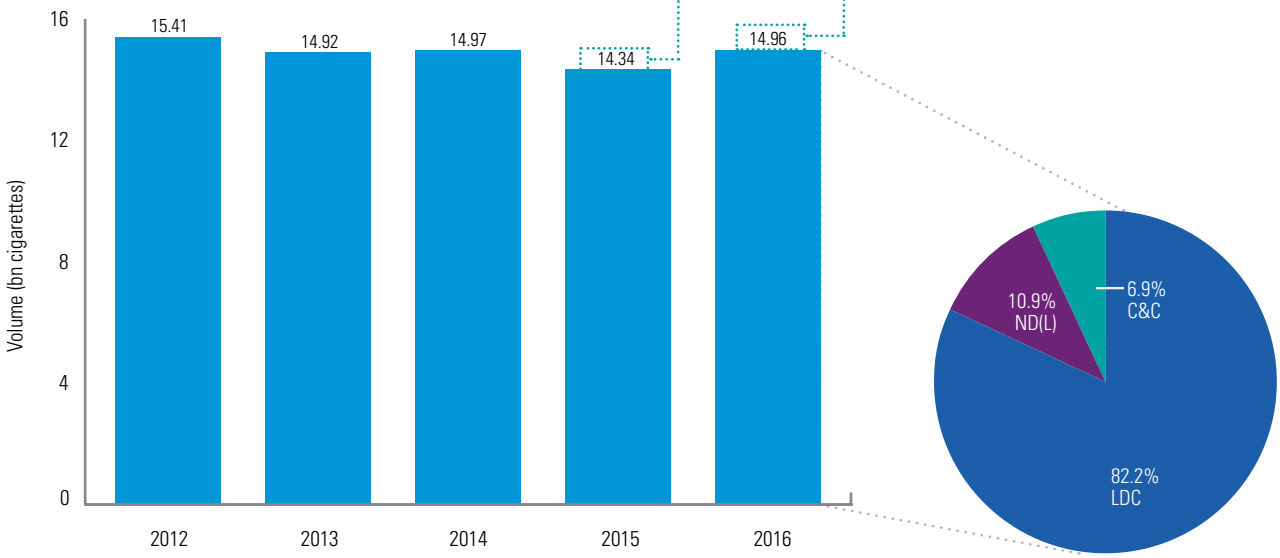
- C&C increased to 6.9%, a three-fold increase since 2014
- The increase in C&C contributed to an increase in total consumption
- FYROM and Ukraine were the largest source countries for illicit cigarettes, accounting for over one-third of total C&C inflows

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2012-2016

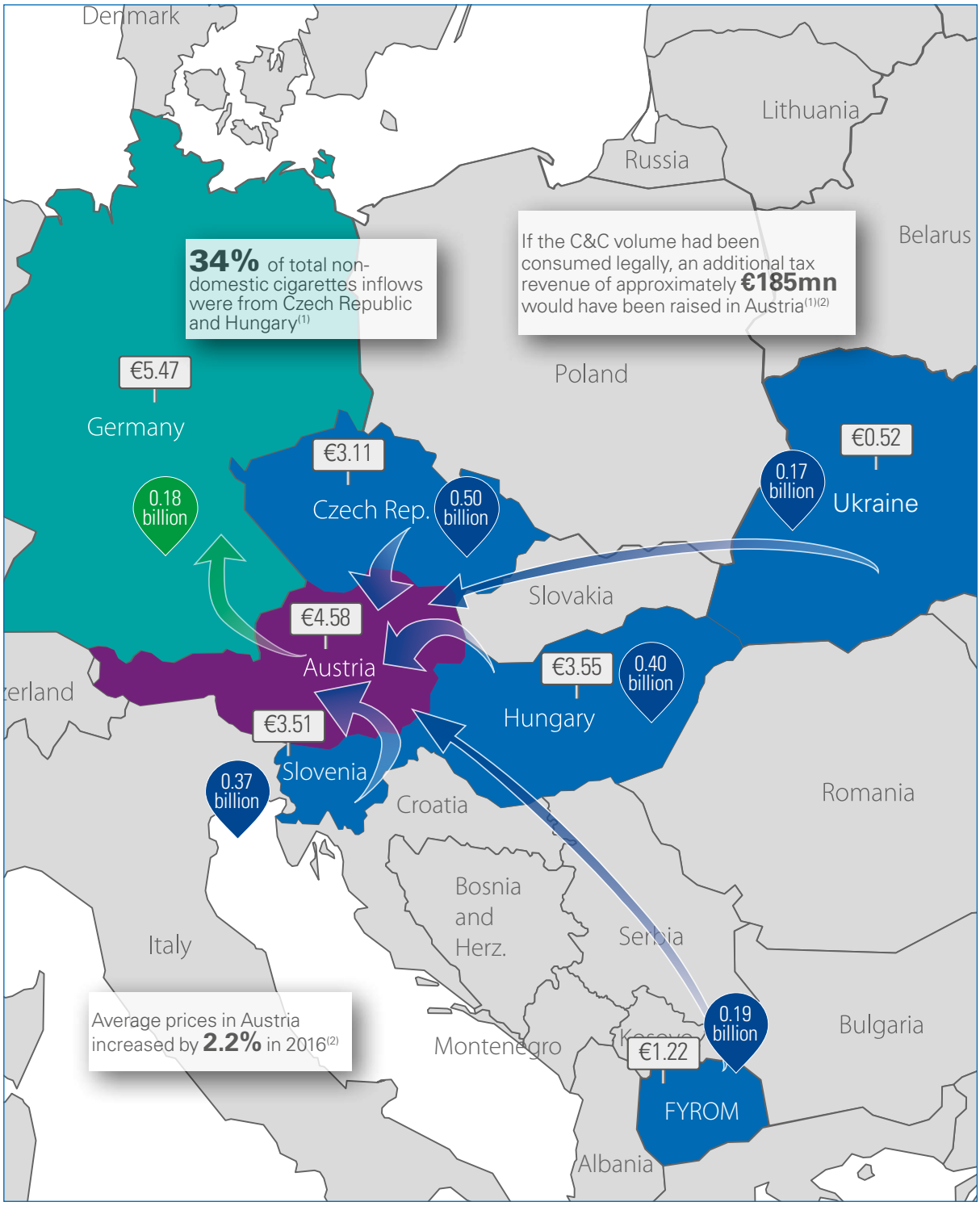


An adjustment was made to the sampling plan in Austria from 2015 which was felt to be more representative of the population. It resulted in a lower non-domestic volume compared to previous years, lowering estimated overall consumption

Manufactured cigarette consumption – 2012-2016



Key inflows and outflows



Notes: *(a) KPMG calculates the split between C&C and ND(L) by calculating the ND(L) volumes and subtracting from the total inflows (b) In years 2014-2016 the ND(L) analysis was undertaken using border crossings and regional sales data provided by manufacturers; detail surrounding methodology changes is provided in the appendix*

Sources: *(1) KPMG analysis of UNWTO Factbook 2012-2015, EU flows model and data sources provided by manufacturers*

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2012-2016[1][2][a]

TOTAL AUSTRIA CONSUMPTION						
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**	**2015-16 %**
Legal domestic sales (LDS)	12.96	13.04	12.90	12.73	12.63	(1%)
Outflows	-0.31	-0.75	-0.38	-0.36	-0.33	(7%)
Legal domestic consumption (LDC)	12.65	12.29	12.52	12.37	12.29	(1%)
Non-domestic legal (ND(L))	1.25	1.69	2.11	1.41	1.63	16%
Counterfeit and contraband (C&C)	1.50	0.95	0.35	0.56	1.04	86%
Total non-domestic	2.76	2.64	2.46	1.97	2.67	35%
Total consumption	**15.41**	**14.92**	**14.97**	**14.34**	**14.96**	**4%**

The new pack sampling plan was adopted in Austria from 2015 which was felt to be more representative of the population. The previous collection focused on areas with higher non-domestic Slovenia, Czech Republic and Hungary

- Total consumption increased by 4%, driven entirely by the 35% growth in inflows, and largely due to increased volumes from non-EU countries against a backdrop of greater migration into the EU
  - Increases in inflows from FYROM may be due to migration flows to the EU through the Western Balkans region[4] and average price differences of €3.36
  - Inflows from Ukraine increased by 0.14 billion cigarettes in 2016, alongside increased migration[5] and an average price gap of €4.06
- Germany remains the largest outflows market contributing 54% to the total outflows

Total inflows by country of origin – 2012-2016[1][b][c]

ND INFLOWS TO AUSTRIA					
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**
Czech Republic	0.41	0.61	0.47	0.41	0.50
Hungary	0.86	0.71	0.56	0.25	0.40
Slovenia	0.83	0.68	0.74	0.42	0.37
FYROM	0.00	0.00	0.00	0.04	0.19
Ukraine	0.06	0.06	0.00	0.03	0.17
Other	0.60	0.57	0.68	0.82	1.03
Total Inflows	**2.76**	**2.64**	**2.46**	**1.97**	**2.67**

Total outflows by destination country – 2012-2016[1]

OUTFLOWS FROM AUSTRIA					
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**
Germany	0.18	0.62	0.27	0.15	0.18
Switzerland			0.02	0.04	0.04
Netherlands	0.03	0.03	0.02	0.02	0.02
Italy	0.01	0.03	0.01	0.03	0.02
France	0.02	0.01	0.01	0.01	0.02
Other	0.07	0.07	0.06	0.10	0.06
Total Outflows	**0.31**	**0.75**	**0.38**	**0.36**	**0.33**

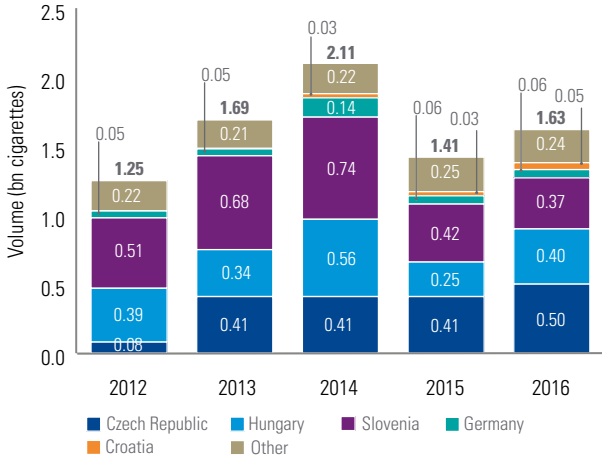
Notes: *(a) In years 2012-2016 non-domestic incidence is stated on sticks basis; prior to this a packs basis was used (b) Illicit Whites with no country specific labelling comprise Illicit Whites labelled as "Duty free" and "Unspecified". Data from previous years reflects the same definition; please refer to the appendix for full methodology (c) The Duty Free and Unspecified inflows exclude Illicit Whites which have Duty Free labelling and unspecified labelling (d) Switzerland was included for the first time in 2014*

Sources: *(1) KPMG EU Flows Model and analysis of data sources provided by manufacturers (2) KPMG analysis of UNWTO Factbook 2012-2015 (3) KPMG analysis of EC Excise Duty tables, January 2017 (Part III – Manufactured Tobacco) and data sources provided by manufacturers (4) DW: Austria takes steps to control migration on Balkan route, July 2017 (5) Migration security map of Ukraine Report, Europe without barriers, 2016*

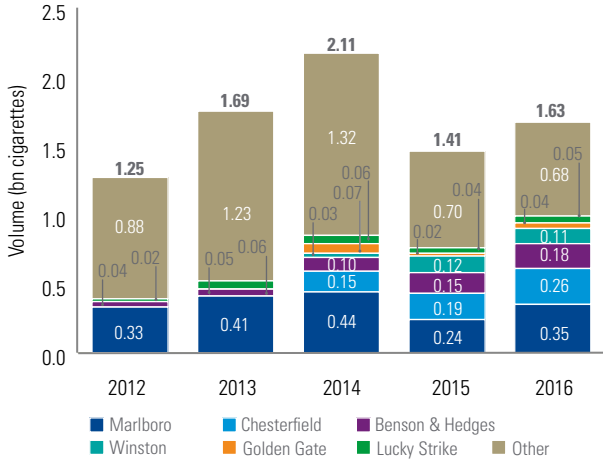
ND(L) and C&C flows

- ND(L) consumption increased by 16%, as the number of journeys made to the Czech Republic, Hungary and Germany increased
- C&C inflows increased by 86%, mainly originating from lower priced countries in Eastern Europe, including FYROM, Ukraine and Serbia
- Whilst Marlboro remained the largest C&C brand, Chesterfield and Pall Mall contributed to the rise in C&C, with
- increases of 0.15 billion cigarettes and 0.11 billion cigarettes respectively, over half of which originated from FYROM

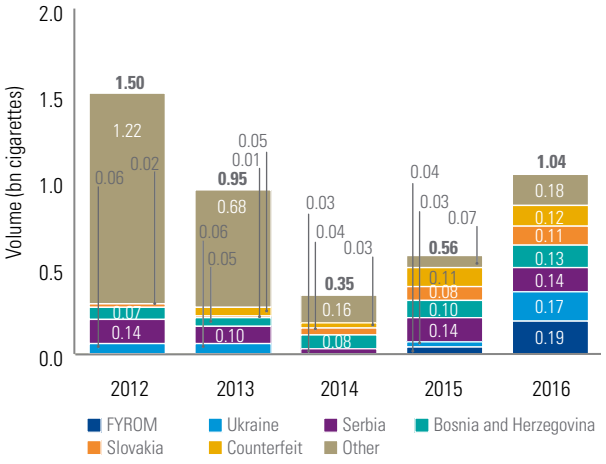
ND(L) by country of origin – 2012-2016[1](a)(b)



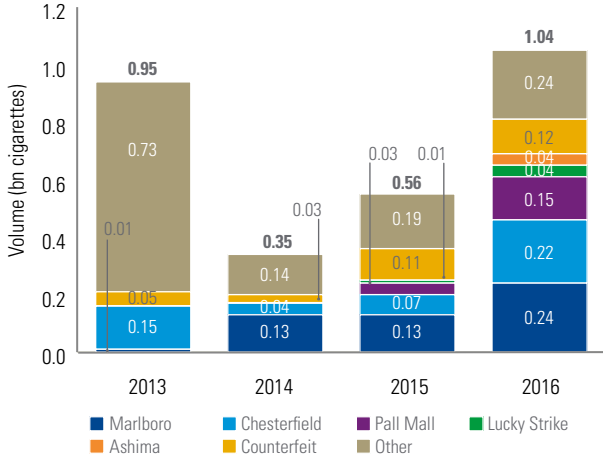
ND(L) by brand – 2012-2016[1](a)(b)



C&C by country of origin – 2012-2016[1](a)



C&C by brand – 2013-2016[1](a)



Notes: *(a) KPMG calculates the split between C&C and ND(L) by calculating the ND(L) volumes and subtracting from the total inflows (b) In years 2014-2016 the ND(L) analysis was undertaken using border crossings and regional sales data provided by manufacturers; detail surrounding methodology changes is provided in the appendix*

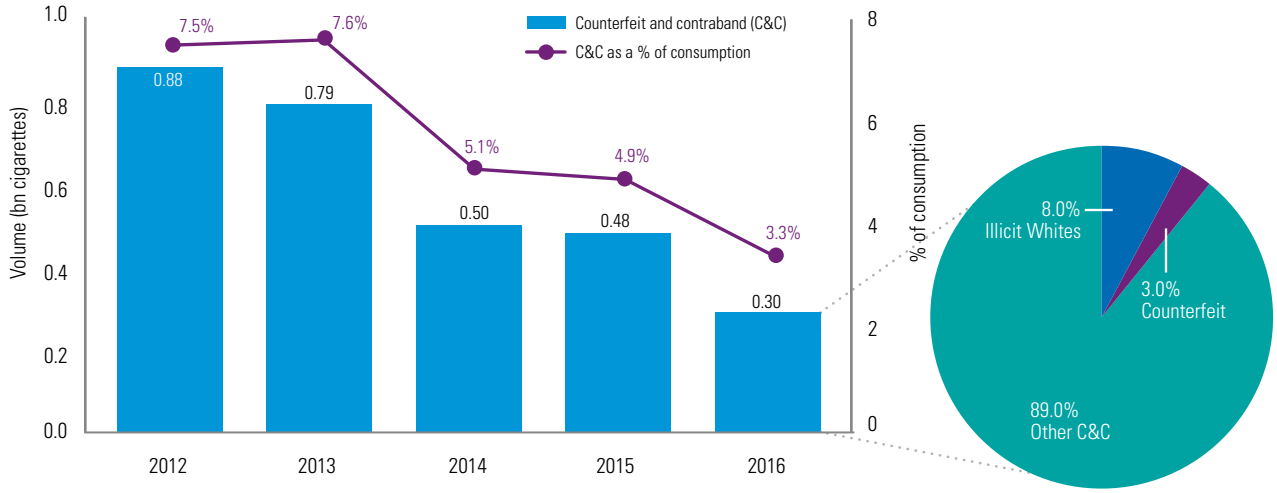
Sources: *(1) KPMG analysis of UNWTO Factbook 2012-2015, EU flows model and data sources provided by manufacturers*

Belgium

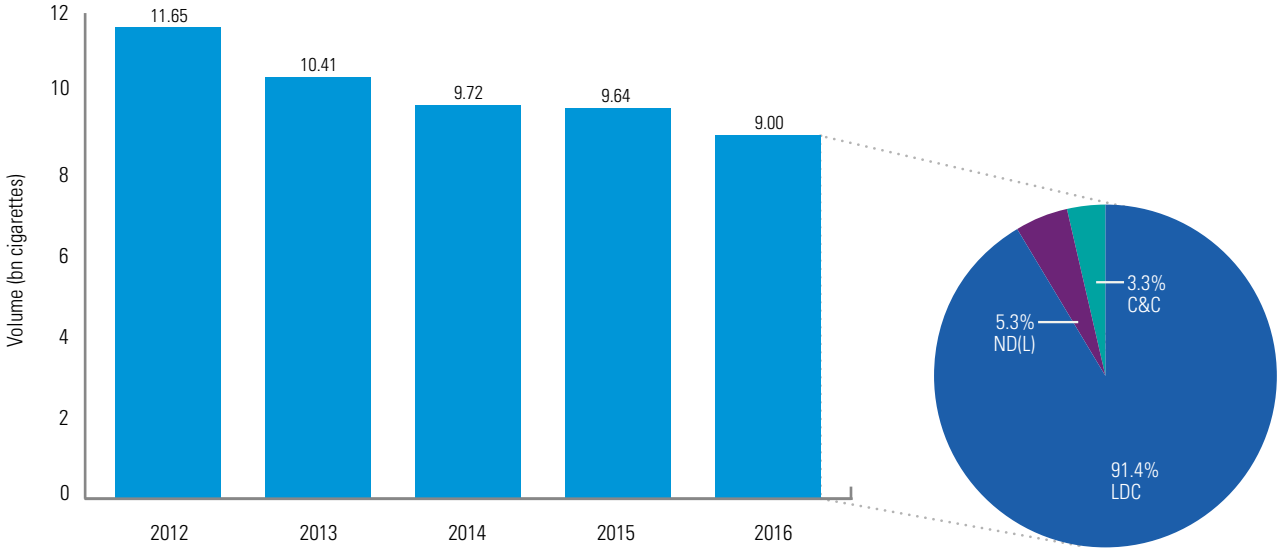
Overview

- C&C volumes continued to fall from 0.48 billion in 2015 to 0.30 billion in 2016, accounting for 3.3% of total consumption
  - Illicit Whites as a percentage of total C&C consumption increased to 8% in 2016
- ND(L) fell by a similar percentage, against a backdrop of reduced travel following the terror attack in March 2016
- The majority of C&C originated from lower-priced Eastern European countries

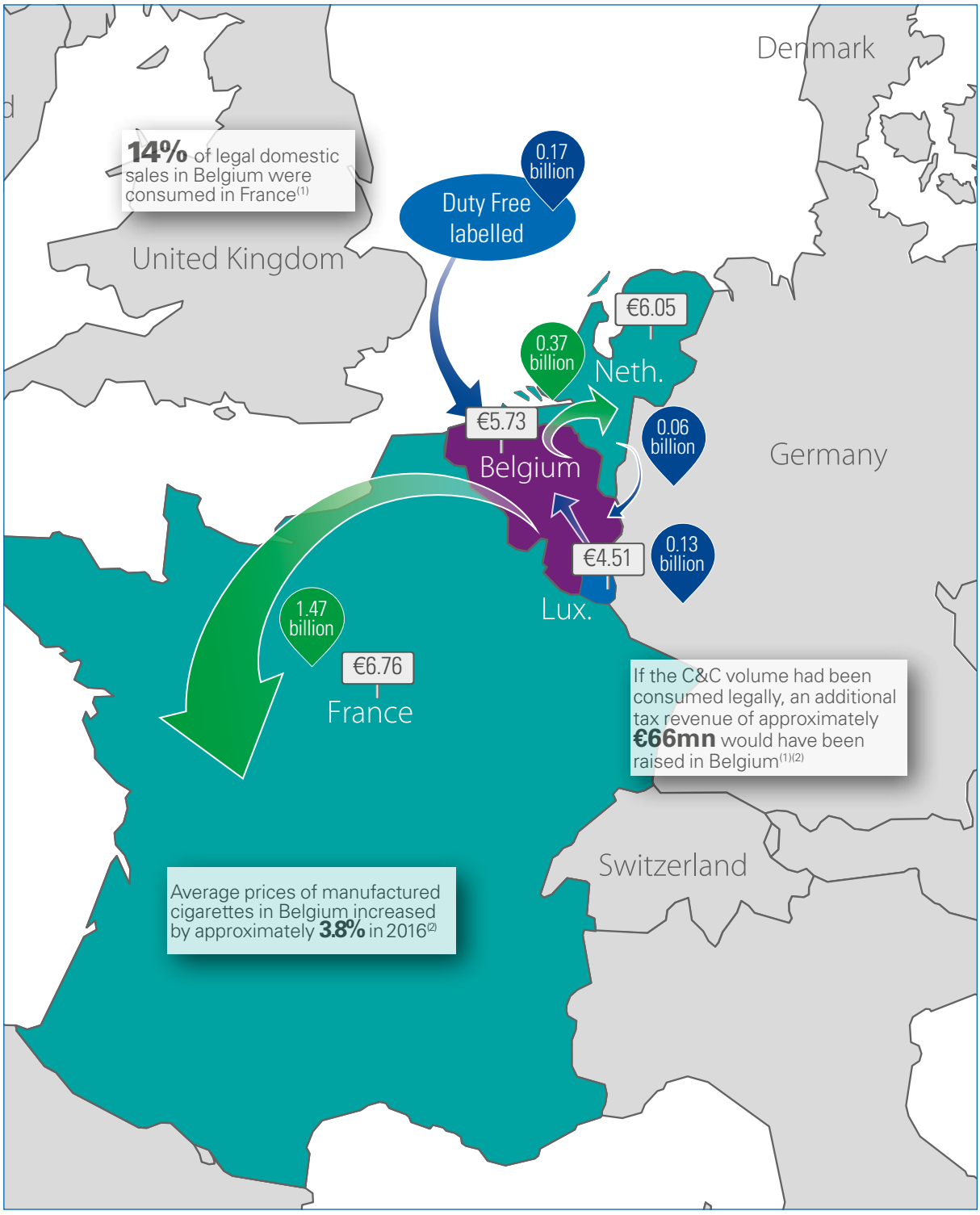
Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2012-2016



Manufactured cigarette consumption – 2012-2016



Key inflows and outflows



Note: *(a) Map shows major flows. Countries which are both source and destination countries are coded according to the larger flow*

Sources: *(1) KPMG EU Flows Model and analysis of data sources provided by manufacturers (2) EC Excise Duty tables, January 2017 (Part III – Manufactured Tobacco)*

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2012-2016[1][2][a]

TOTAL BELGIUM CONSUMPTION						
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**	**2015-16 %**
Legal domestic sales (LDS)	11.44	11.00	10.92	10.60	10.18	(4%)
Outflows	-1.48	-2.48	-2.47	-2.15	-1.94	(9%)
Legal domestic consumption (LDC)	9.96	8.52	8.45	8.45	8.23	(3%)
Non-domestic legal (ND(L))	0.81	1.10	0.78	0.71	0.48	(33%)
Counterfeit and contraband (C&C)	0.88	0.79	0.50	0.48	0.30	(38%)
Total non-domestic	1.69	1.89	1.27	1.18	0.77	(35%)
Total consumption	**11.65**	**10.41**	**9.72**	**9.64**	**9.00**	**(7%)**

- Legal domestic sales remained fairly stable against a backdrop of positive economic factors and stable prices[3][4]
- Total inflows declined by 35% reflecting a 30% decline of inbound tourism volumes to Belgium following the Brussels terror attack in March 2016(5)
- Total outflows decreased by 10%, driven by a 13% decline from France reflecting tighter border controls and a narrowing price gap between the countries which fell by €0.21[3]

Total inflows by country of origin – 2012-2016[1][b][c]

ND INFLOWS TO BELGIUM					
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**
Duty Free Labelled	0.20	0.21	0.20	0.20	0.17
Luxembourg	0.51	0.42	0.25	0.17	0.13
Netherlands	0.04	0.17	0.08	0.10	0.06
Poland	0.17	0.09	0.07	0.06	0.04
Russia	0.12	0.08	0.05	0.07	0.04
Other	0.64	0.91	0.62	0.59	0.33
Total Inflows	**1.69**	**1.89**	**1.27**	**1.18**	**0.77**

Total outflows by destination country – 2012-2016[1][b]

OUTFLOWS FROM BELGIUM					
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**
France	1.01	2.00	2.08	1.69	1.47
Netherlands	0.32	0.38	0.28	0.29	0.37
UK	0.08	0.04	0.03	0.04	0.03
Germany	0.02	0.02	0.03	0.03	0.03
Switzerland			0.01	0.02	0.02
Other	0.06	0.04	0.05	0.08	0.03
Total Outflows	**1.48**	**2.48**	**2.47**	**2.15**	**1.94**

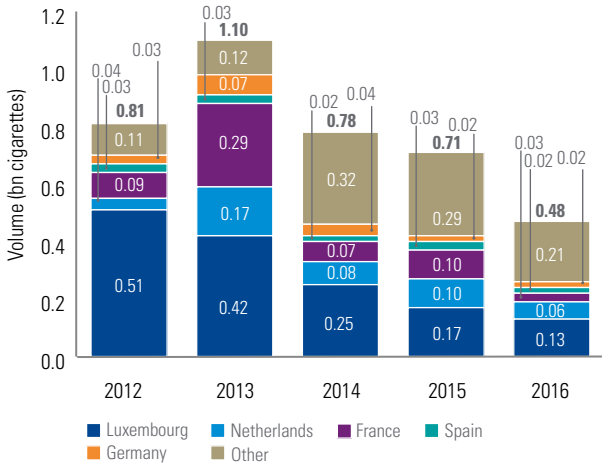
Notes: *(a) In years 2012-2016 non-domestic incidence is stated on sticks basis; prior to this a packs basis was used (b) Illicit Whites with no country specific labelling comprise Illicit Whites labelled as "Duty free" and "Unspecified". Data from previous years reflects the same definition; please refer to the appendix for full methodology (b) The Duty Free inflows exclude Illicit Whites which have Duty Free labelling and unspecified labelling (d) Switzerland was included for the first time in 2014*

Sources: *(1) KPMG EU Flows Model and analysis of data sources provided by manufacturers (2) KPMG analysis of UNWTO Factbook 2012-2016 (3) OECD data, 2017 (4) KPMG analysis of EC Excise Duty tables, January 2017 (Part III – Manufactured Tobacco) and data sources provided by manufacturers (5) 'Attacks have significant impact on Flanders tourism', The Brussels Times, 2017*

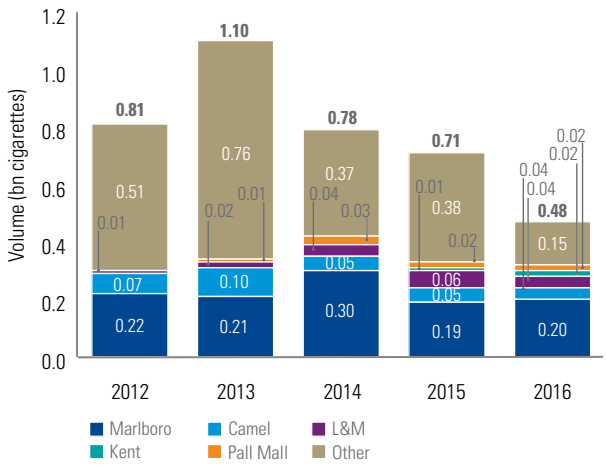
ND(L) and C&C flows

- Non-domestic legal flows continued to follow a downward trend, driven by reduced flows from neighboring countries, reflecting lower travel and stricter border controls
- Despite a reduction of C&C flows, Polish contraband more than doubled against the backdrop of a widened price gap between each country from €2.39 to €2.56
- Marlboro continued to be the largest C&C brand, despite a 50% decline from the previous year

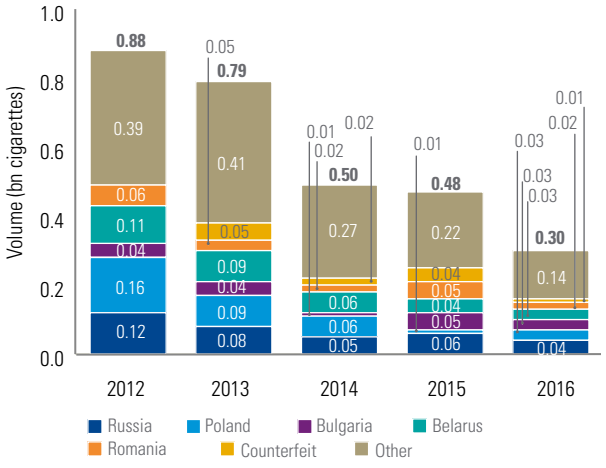
ND(L) by country of origin – 2012-2016[1][a][b]



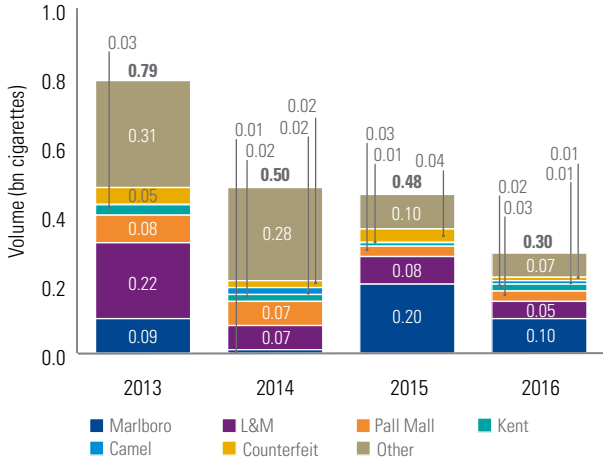
ND(L) by brand – 2012-2016[1][a][b]



C&C by country of origin – 2012-2016[1][a]



C&C by brand – 2013-2016[1][a]



Notes: *(a) Values less than 0.001 are removed for clarity purposes (b) KPMG calculates the split between C&C and ND(L) by calculating the ND(L) volumes and subtracting from the total inflows (c) In 2014 to 2016 the ND(L) analysis was undertaken using border crossings and regional sales data provided by manufacturers; detail surrounding methodology changes is provided in the appendix*

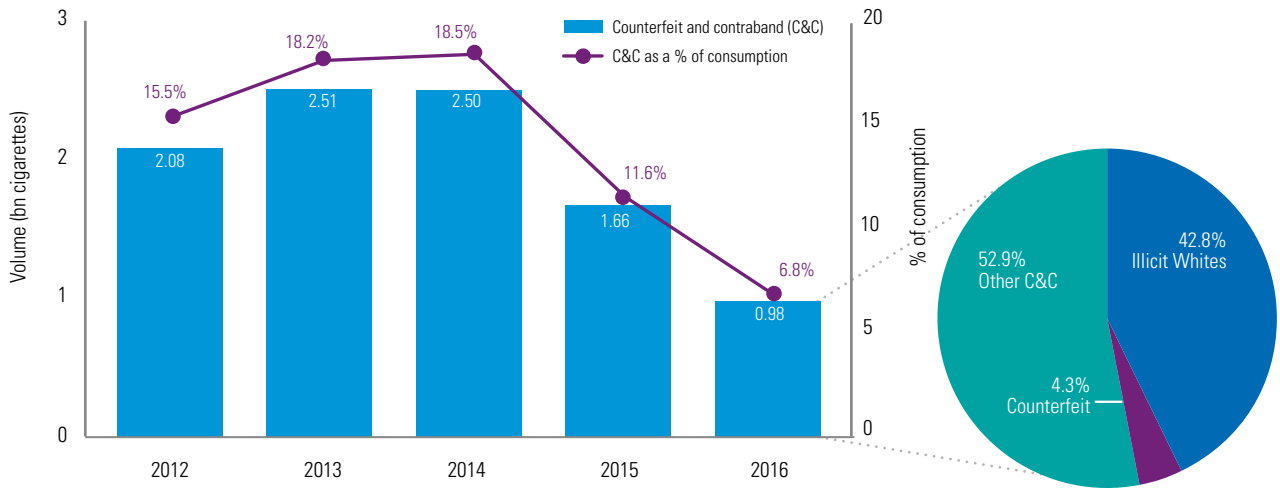
Sources: *(1) KPMG analysis of UNWTO Factbook 2012-2015, EU flows model and data sources provided by manufacturers*

Bulgaria

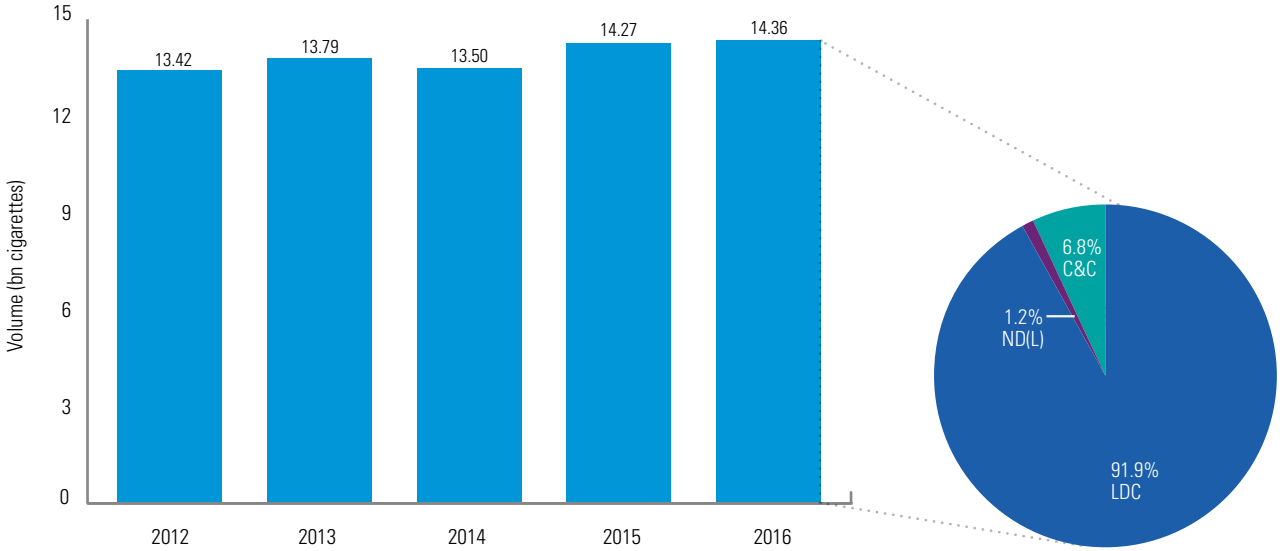
Overview

- C&C volumes declined by 0.7 billion cigarettes in 2016, a fall of 41%, against a backdrop of increased law enforcement activity
- A 0.6 billion decline in cigarette inflows was offset by growth in legal domestic consumption, resulting in stable levels of total consumption
- The largest C&C brand flow, Duty Free labelled Karelia, declined by almost 50%

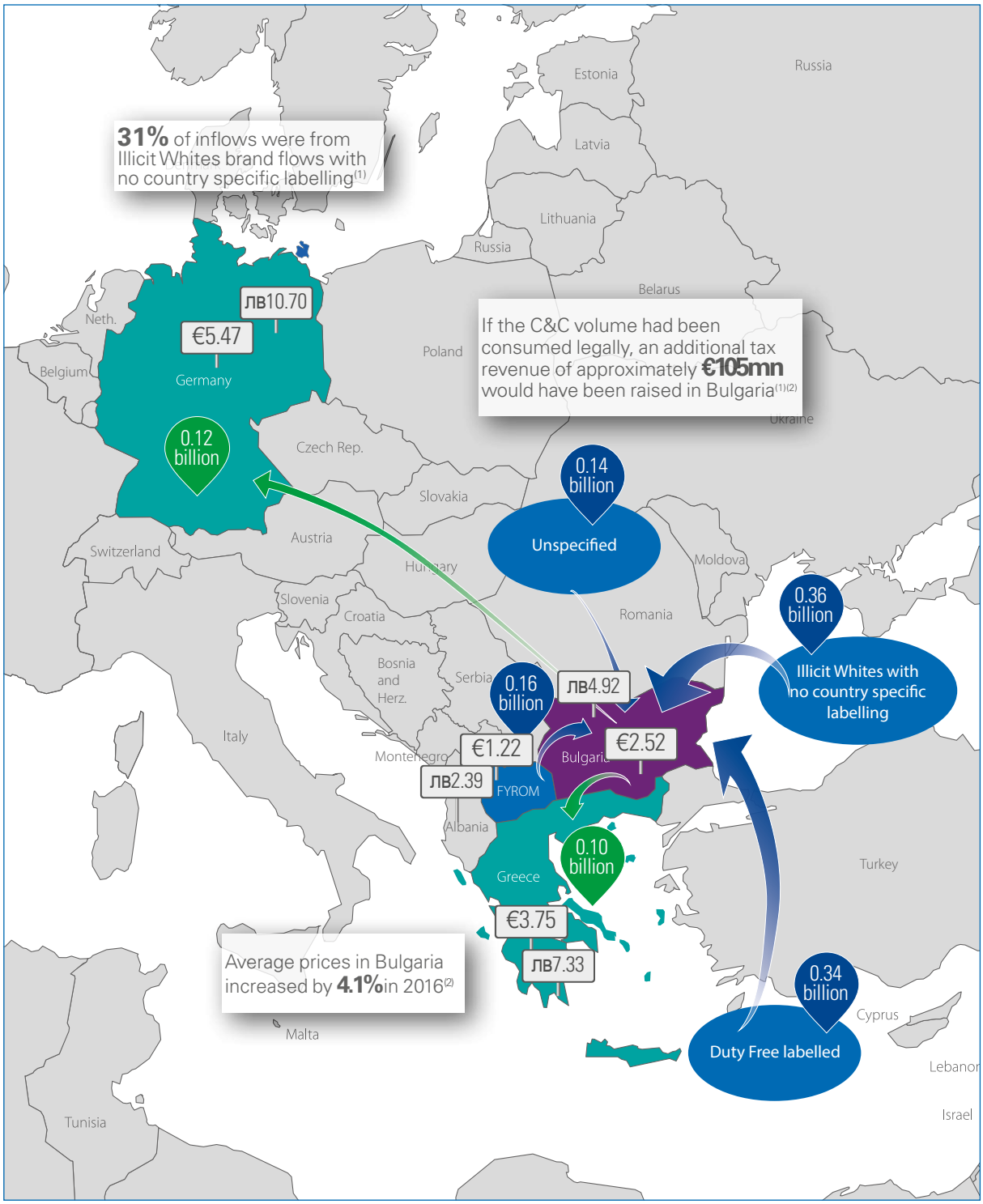
Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2012-2016



Manufactured cigarette consumption – 2012-2016



Key inflows and outflows



Note: *(a) Map shows major flows. Countries which are both source and destination countries are coded according to the larger flow*

Sources: *(1) KPMG EU Flows Model and analysis of data sources provided by manufacturers (2) EC Excise Duty tables (Part III – Manufactured Tobacco)*

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2012-2016[1][2][a]

TOTAL BULGARIA CONSUMPTION						
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**	**2015-16 %**
Legal domestic sales (LDS)	11.57	11.50	11.34	13.16	13.83	5%
Outflows	-0.38	-0.36	-0.41	-0.61	-0.64	5%
Legal domestic consumption (LDC)	11.19	11.14	10.93	12.55	13.19	5%
Non-domestic legal (ND(L))	0.15	0.15	0.07	0.06	0.18	211%
Counterfeit and contraband (C&C)	2.08	2.51	2.50	1.66	0.98	(41%)
Total non-domestic	2.23	2.66	2.57	1.72	1.16	(32%)
Total consumption	**13.42**	**13.79**	**13.50**	**14.27**	**14.36**	**1%**

- Despite a sharp decline in C&C, total consumption remained relatively stable due to continued growth in legal domestic sales, amidst 3.4% growth in GDP in Bulgaria[3]
- Lower volumes of Illicit Whites brand flows and Duty Free labelled cigarettes in 2016 caused inflows to fall by one third, continuing the rate of decline observed in 2015
- Whilst overall outflows remained stable, flows to Greece increased by 0.06 billion as Greek residents took advantage of lower prices in Bulgaria

Total inflows by country of origin – 2012-2016[1][b][c]

ND INFLOWS TO BULGARIA					
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**
IWs with no country-specific labelling	0.45	0.37	1.28	0.82	0.36
Duty Free Labelled	1.24	1.87	0.90	0.42	0.34
FYROM	0.07	0.04	0.03	0.13	0.16
Unspecified		0.07	0.02	0.03	0.14
Counterfeit		0.00	0.01	0.07	0.04
Other	0.47	0.31	0.33	0.25	0.13
Total Inflows	**2.23**	**2.66**	**2.57**	**1.72**	**1.16**

Total outflows by destination country – 2012-2016[1]

OUTFLOWS FROM BULGARIA					
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**
Germany	0.06	0.08	0.11	0.15	0.12
France	0.05	0.09	0.07	0.13	0.11
Greece	0.03	0.03	0.04	0.04	0.10
UK	0.08	0.03	0.05	0.08	0.09
Netherlands	0.03	0.03	0.03	0.02	0.06
Other	0.13	0.11	0.12	0.19	0.16
Total Outflows	**0.38**	**0.36**	**0.41**	**0.61**	**0.64**

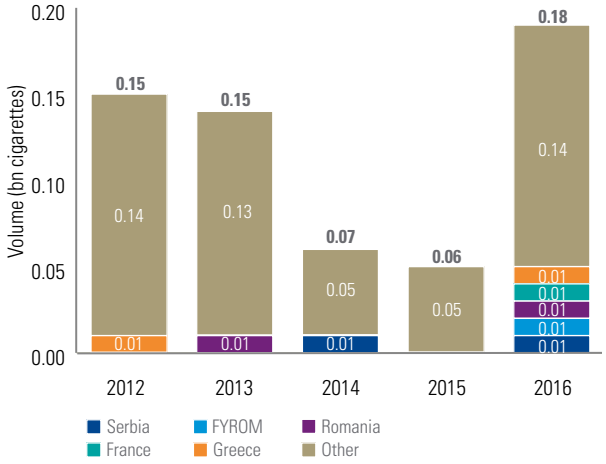
Notes: *(a) In years 2012-2016 non-domestic incidence is stated on sticks basis; prior to this a packs basis was used (b) Illicit Whites with no country specific labelling comprise Illicit Whites labelled as "Duty free" and "Unspecified". Data from previous years reflects the same definition; please refer to the appendix for full methodology (c) The Duty Free and Unspecified inflows exclude Illicit Whites which have Duty Free labelling and unspecified labelling*

Sources: *(1) KPMG EU Flows Model and analysis of data sources provided by manufacturers (2) KPMG analysis of UNWTO Factbook 2012-2015 (3) EIU, EU real GDP data, 2016*

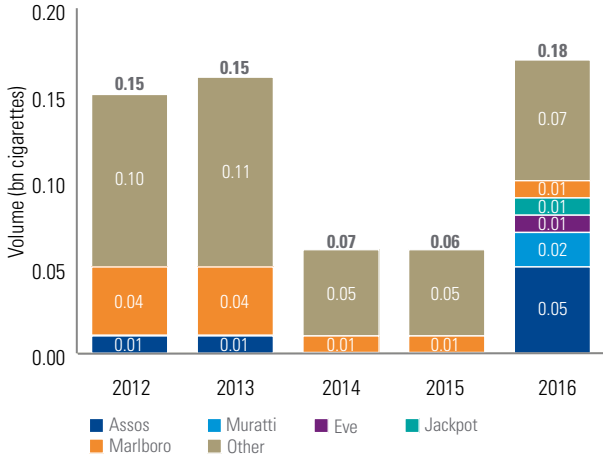
ND(L) and C&C flows

- C&C declined by 0.7 billion cigarettes between 2015 and 2016, corresponding with a 50% reduction in the brands identified
- Decreases were predominantly due to continued declines in the main Illicit White brand flows identified in 2015, most importantly President and Turquoise; and Duty Free labelled brands, including Diva and Don
  - Duty Free labelled Karelia, for which all identified packs displayed English labelling, remained the largest source of C&C, accounting for 11%
- Premium, a brand which was not identified in 2015 or previous years and has no known trademark owner, was the third largest source of C&C in 2016

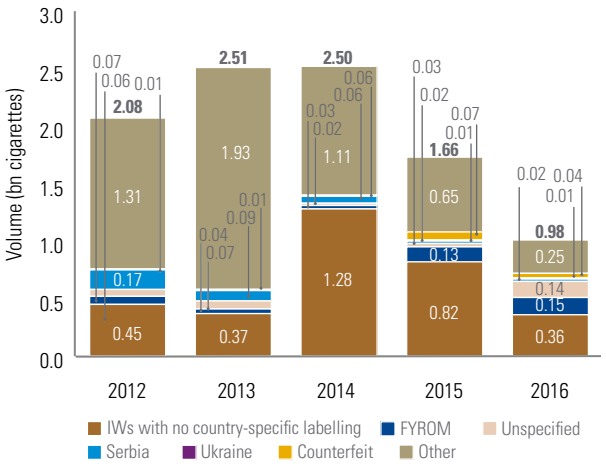
ND(L) by country of origin – 2012-2016[1][a][b]



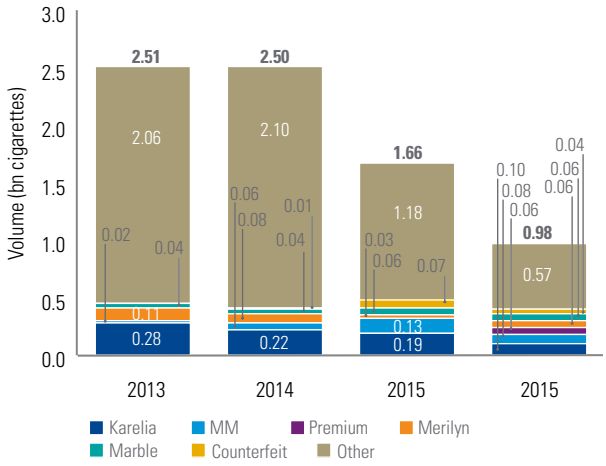
ND(L) by brand – 2012-2016[1][a][b]



C&C by country of origin – 2012-2016[1][a]



C&C by brand – 2013-2016[1][a]



Notes: *(a) KPMG calculates the split between C&C and ND(L) by calculating the ND(L) volumes and subtracting from the total inflows (b) For the years 2014-2016, the ND(L) analysis was undertaken using border crossings and regional sales data provided by manufacturers; detail surrounding methodology changes is provided in the appendix (c) Additional information about the process for identifying Illicit Whites is provided in the appendix*

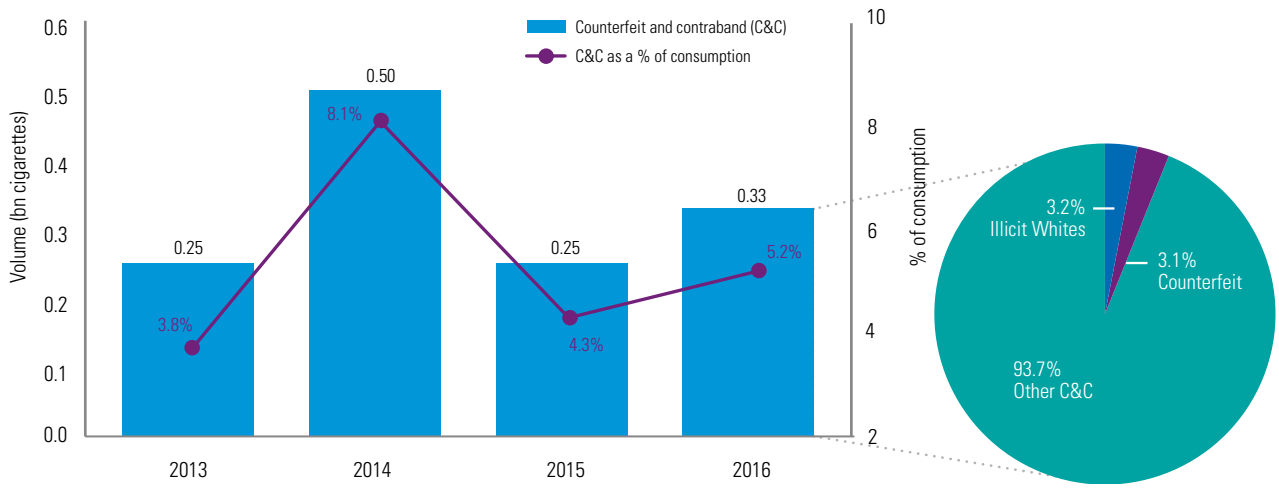
Sources: *(1) KPMG analysis of UNWTO Factbook 2012-2015, EU flows model and data sources provided by manufacturers*

Croatia

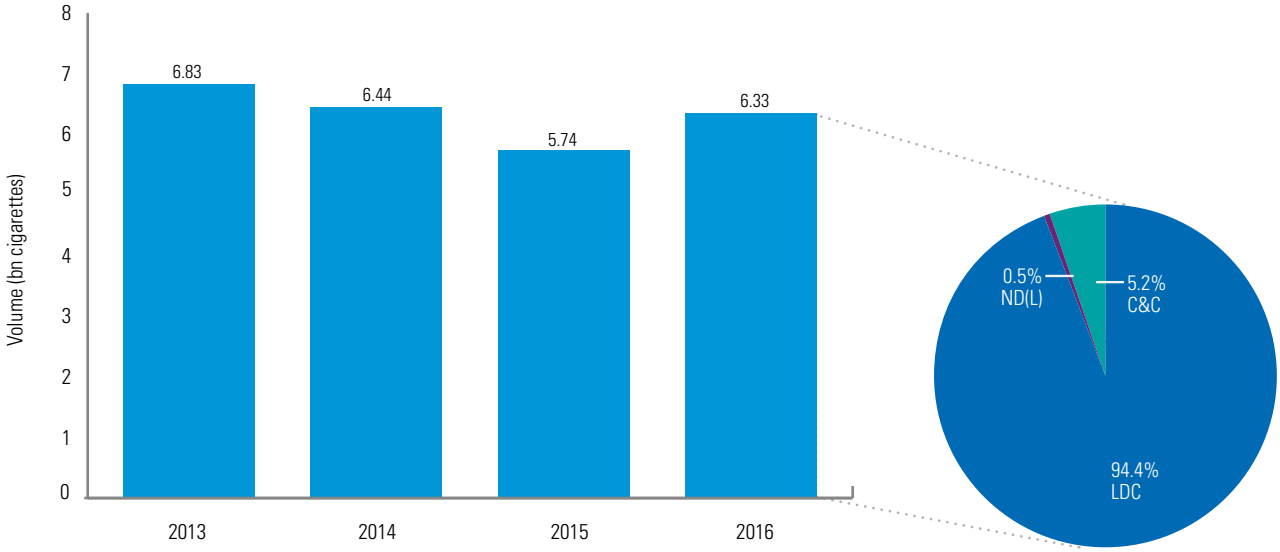
Overview

- C&C increased by 32% in 2016, accounting for 5.2% of total consumption
- The increase in C&C predominantly came from an increase in flows from Bosnia and Herzegovina
- C&C accounted for more than 90% of the total non-domestic inflows in 2016 as travel volumes did not support the flows being legally imported from the source countries

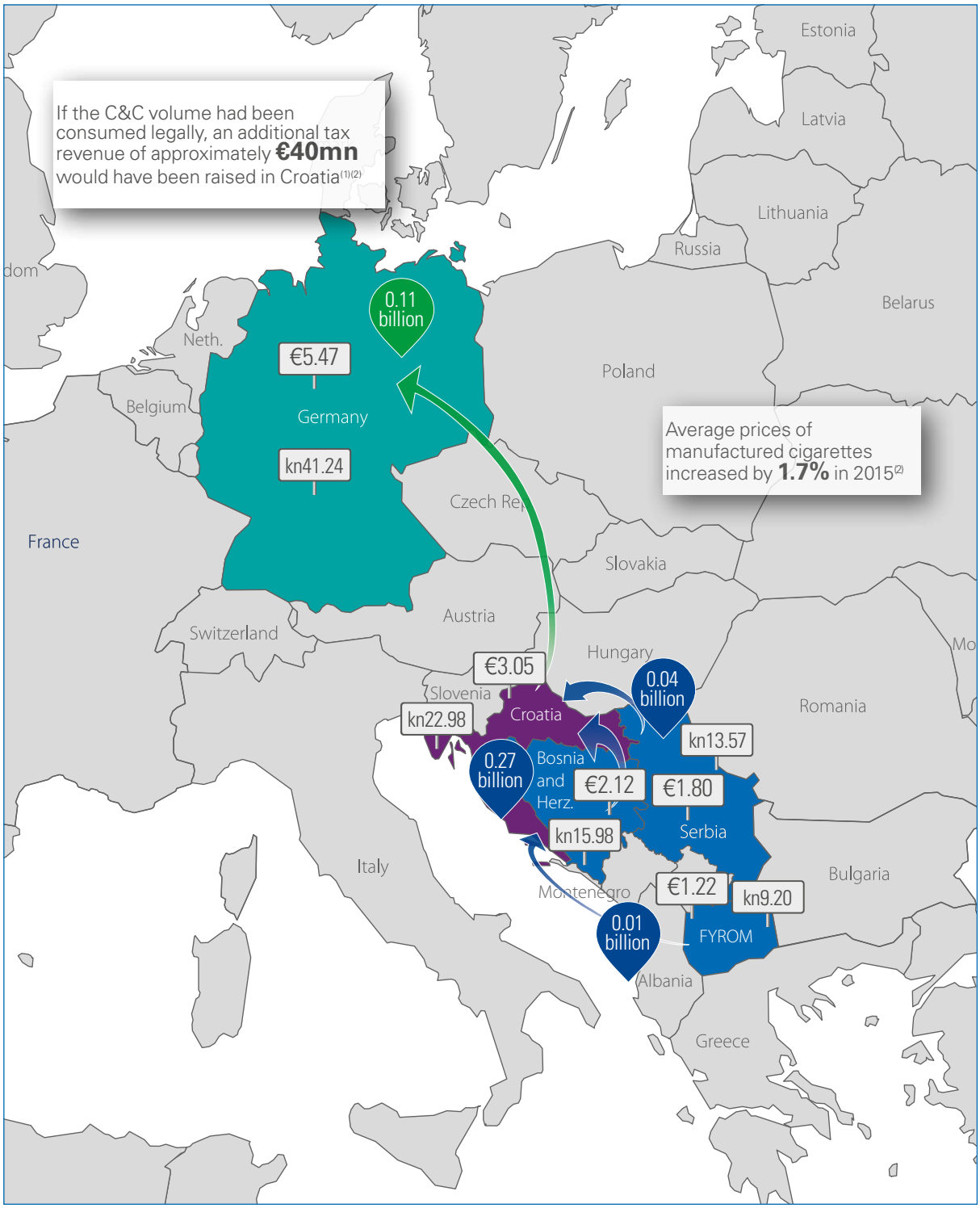
Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2013-2016



Manufactured cigarette consumption – 2013-2016



Key inflows and outflows



Note: *(a) Map shows major flows. Countries which are both source and destination countries are coded according to the larger flow*

Sources: *(1) KPMG EU Flows Model and analysis of data sources provided by manufacturers (2) EC Excise Duty tables, January 2017 (Part III – Manufactured Tobacco)*

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2012-2016[1][2][a][b][c]

TOTAL CROATIA CONSUMPTION					
Billion cigarettes	**2013**	**2014**	**2015**	**2016**	**2015-16 %**
Legal domestic sales (LDS)	6.71	6.07	5.86	6.30	8%
Outflows	-0.23	-0.26	-0.42	-0.33	(22%)
Legal domestic consumption (LDC)	6.47	5.81	5.44	5.98	10%
Non-domestic legal (ND(L))	0.10	0.13	0.04	0.03	(27%)
Counterfeit and contraband (C&C)	0.25	0.50	0.25	0.33	32%
Total non-domestic	0.35	0.64	0.29	0.35	20%
Total consumption	**6.83**	**6.44**	**5.74**	**6.33**	**10%**

- Inflows from lower priced countries, Serbia and Bosnia and Herzegovina, accounted for 90% of total inflows; high rates of unemployment in eastern Croatia border regions may have increased the demand for cheaper nondomestic cigarettes[4]
- Germany remains the largest outflow market, despite a decrease of 58%, reflecting the 2.2 million visitors from Germany per year

Total inflows by country of origin – 2012-2016[1][d][e]

ND INFLOWS TO CROATIA				
Billion cigarettes	**2013**	**2014**	**2015**	**2016**
Bosnia And Herzegovina	0.20	0.38	0.16	0.27
Serbia	0.05	0.09	0.02	0.04
Counterfeit	0.00	0.00	0.01	0.01
FYROM	0.00	0.00	0.00	0.01
Montenegro	0.00	0.00	0.00	0.01
Other	0.10	0.16	0.10	0.01
Total inflows	**0.35**	**0.64**	**0.29**	**0.35**

Total outflows by destination country – 2012-2016[1]

OUTFLOWS FROM CROATIA					
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**
Germany	0.07	0.09	0.14	0.27	0.11
France	0.00	0.02	0.00	0.01	0.06
Austria	0.03	0.03	0.03	0.03	0.05
Slovenia	0.01	0.03	0.02	0.04	0.03
UK	0.01	0.00	0.00	0.00	0.02
Other	0.06	0.07	0.06	0.06	0.06
Total outflows	**0.18**	**0.23**	**0.26**	**0.42**	**0.33**

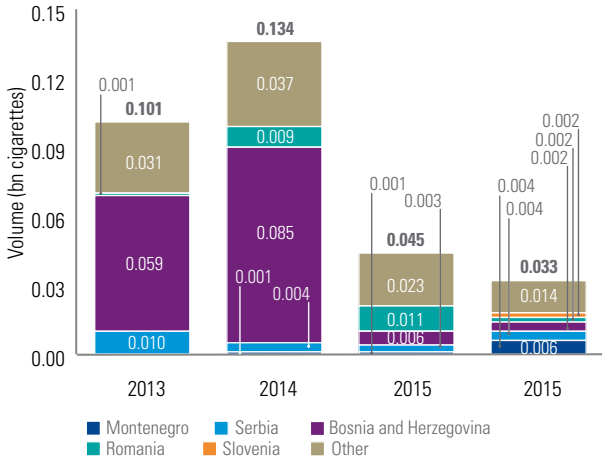
Notes: *(a) In years 2012-2016 non-domestic incidence is stated on sticks basis (b) Illicit Whites with no country specific labelling comprise Illicit Whites labelled as "Duty free" and "Unspecified". Data from previous years reflects the same definition; please refer to the appendix for full methodology (c) The Duty Free and Unspecified inflows exclude Illicit Whites which have Duty Free labelling and unspecified labelling respectively*

Sources: *(1) KPMG EU Flows Model and analysis of data sources provided by manufacturers (2) KPMG analysis of UNWTO Factbook 2012-2015 (3) KPMG analysis of EC Excise Duty tables, January 2017 (Part III – Manufactured Tobacco) and data sources provided by manufacturers (4) Croatian Bureau of Statistics, 2016*

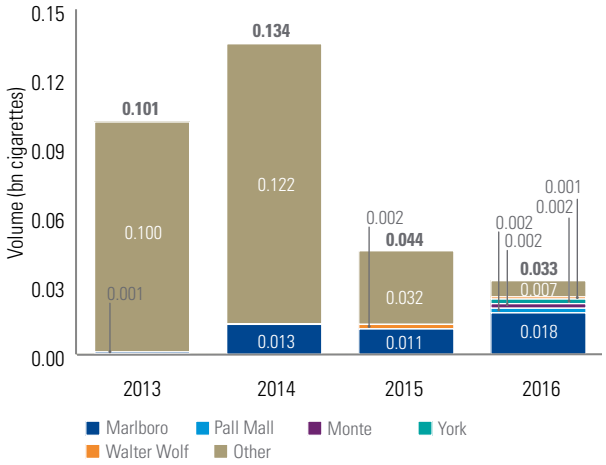
ND(L) and C&C flows

- Non-domestic legal volumes remained low relative to C&C, as the legal cigarette allowance for travel into the EU from non-EU countries did not support the volume identified, especially from Bosnia and Herzegovina
- C&C volumes from Bosnia and Herzegovina increased by 73%, accounting for 81% of the total
  - Walter Wolf, which originated almost exclusively from Bosnia and Herzegovina, increased from 20 to 80 million cigarettes and accounted for 24% of total C&C volumes

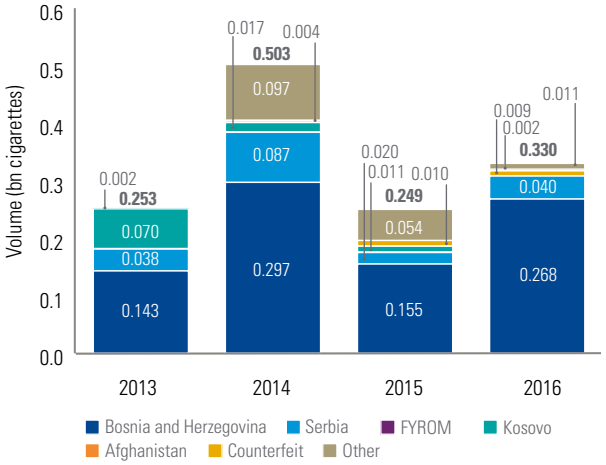
ND(L) by country of origin – 2013-2016[(1)(a)(b)]



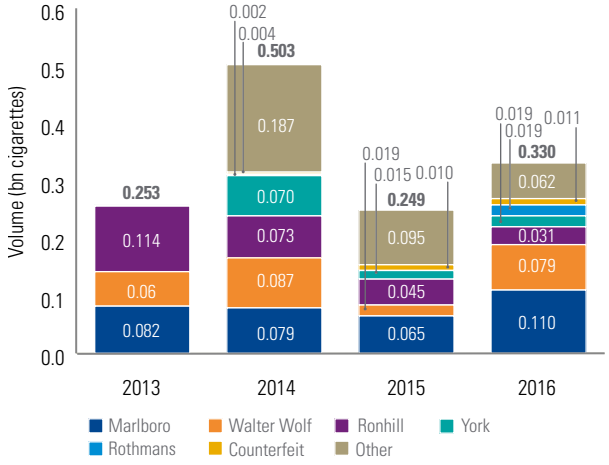
ND(L) by brand – 2013-2016[(1)(a)(b)]



C&C by country of origin – 2013-2016[(1)(a)]



C&C by brand – 2013-2016[(1)(a)]



Notes: *(a) KPMG calculates the split between C&C and ND(L) by calculating the ND(L) volumes and subtracting from the total inflows*
(b) In 2014-2016 the ND(L) analysis was undertaken using border crossings and regional sales data provided by manufacturers; detail surrounding methodology changes is provided in the appendix

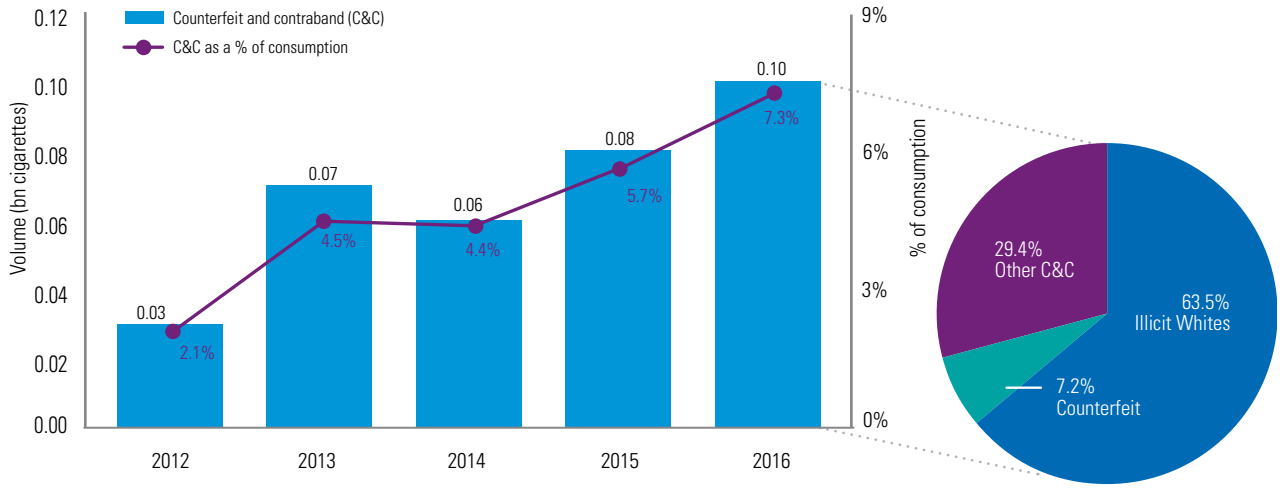
Sources: *(1) KPMG EU flows model and analysis of data sources provided by manufacturers*

Cyprus

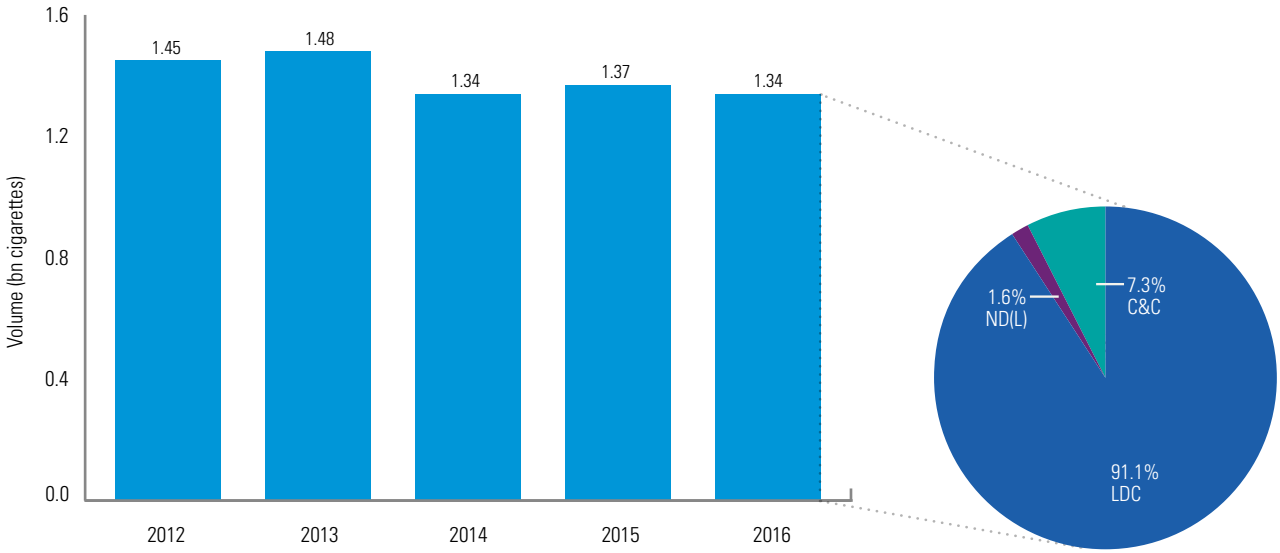
Overview

- C&C continued to increase in Cyprus, accounting for 7.3% of total consumption in 2016
- Cyprus had high levels of unemployment at 13.1%, which may have influenced the rising levels of C&C
- Illicit whites brand flows continued to be the main source of C&C, accounting for 64% in 2016

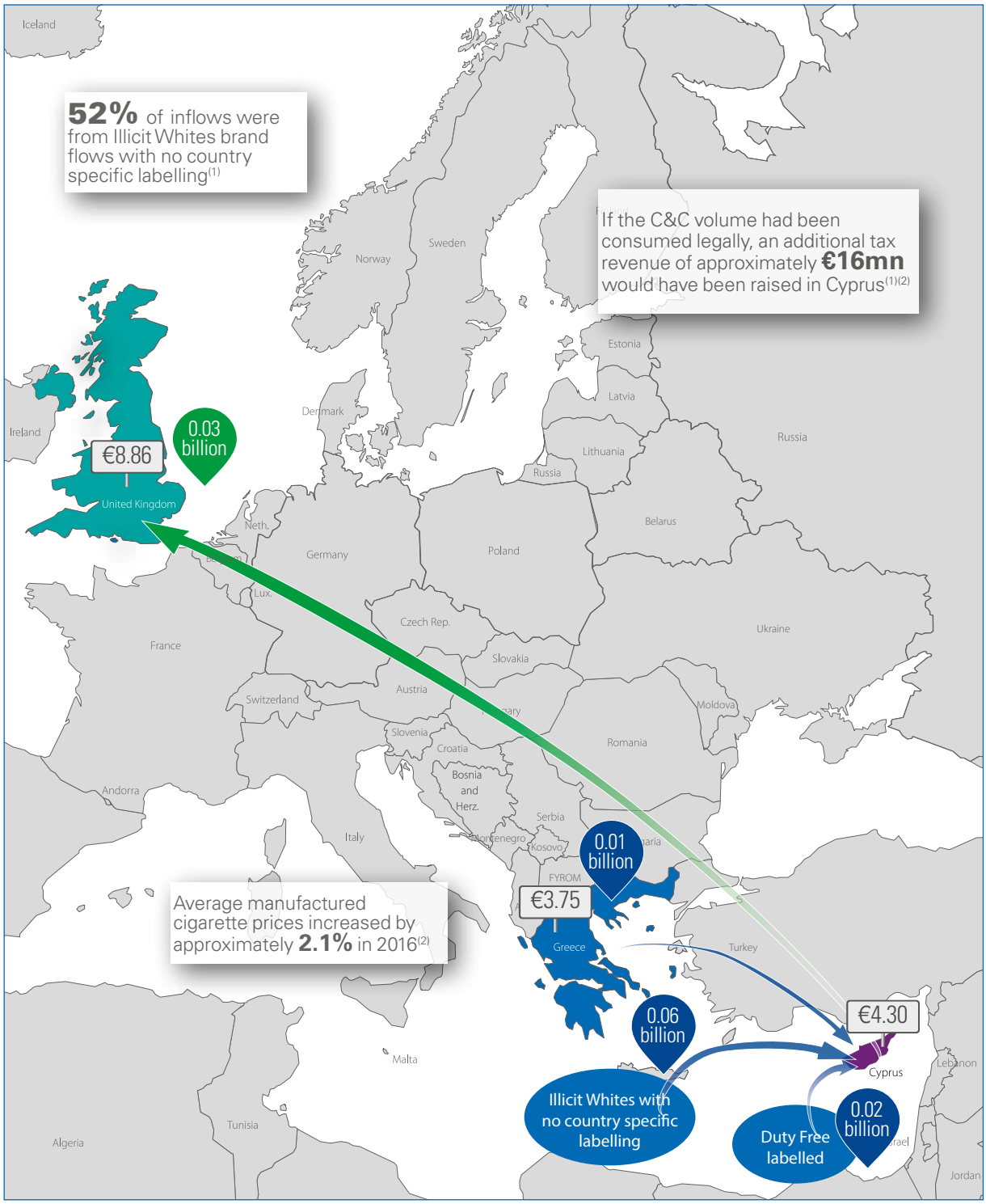
Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2012-2016



Manufactured cigarette consumption – 2012-2016



Key inflows and outflows



Note: *(a) Map shows major flows. Countries which are both source and destination are coded according to the larger flow*

Sources: *(1) KPMG EU Flows Model (2) EC Excise Duty tables, January 2017 (Part III – Manufactured Tobacco) and analysis of data sources provided by manufacturers*

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2012-2016[1][2][a]

TOTAL CYPRUS CONSUMPTION						
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**	**2015-16 %**
Legal domestic sales (LDS)	1.630	1.445	1.305	1.306	1.278	(2%)
Outflows	-0.211	-0.048	-0.032	-0.034	-0.054	57%
Legal domestic consumption (LDC)	1.420	1.397	1.272	1.272	1.225	(4%)
Non-domestic legal (ND(L))	0.013	0.020	0.010	0.015	0.022	46%
Counterfeit and contraband (C&C)	0.030	0.066	0.060	0.078	0.098	25%
Total non-domestic	0.043	0.087	0.070	0.093	0.119	28%
Total consumption	**1.450**	**1.484**	**1.342**	**1.365**	**1.344**	**(2%)**

- Total non-domestic flows increased by 28%, primarily in Illicit white brand flows with no country specific labelling which increased by approximately 0.013 billion cigarettes
- Inflows from Greece rose, which may be explained by the widening price gap of €0.50 to €0.55 as prices rose faster in Cyprus[3]
  - All flows from Greece to Cyprus are supported by legal allowances and the existing travel flows between each country, leading the flows to be classified as ND(L)[2]
- Outflows increased by 0.02 billion, primarily to the UK, as tourism from the UK increased by 11% in 2016

Total inflows by country of origin – 2012-2016[1][b][c]

ND INFLOWS TO CYPRUS					
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**
IWs with no country-specific labelling	0.001	0.002	0.022	0.049	0.062
Duty Free Labelled	0.022	0.040	0.021	0.016	0.019
Counterfeit		0.000	0.000	0.000	0.007
Greece	0.001	0.007	0.001	0.000	0.007
Russia	0.004	0.002	0.003	0.003	0.004
Other	0.015	0.036	0.021	0.025	0.020
Total inflows	**0.043**	**0.087**	**0.070**	**0.093**	**0.119**

Total outflows by destination country – 2012-2016[1]

OUTFLOWS FROM CYPRUS					
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**
UK	0.193	0.034	0.016	0.021	0.025
Greece	0.002	0.004	0.002	0.007	0.015
France	0.005	0.002	0.002	0.000	0.004
Austria	0.001	0.000	0.000	0.000	0.003
Italy	0.000	0.000	0.002	0.000	0.002
Other	0.010	0.008	0.010	0.007	0.004
Total outflows	**0.211**	**0.048**	**0.032**	**0.034**	**0.054**

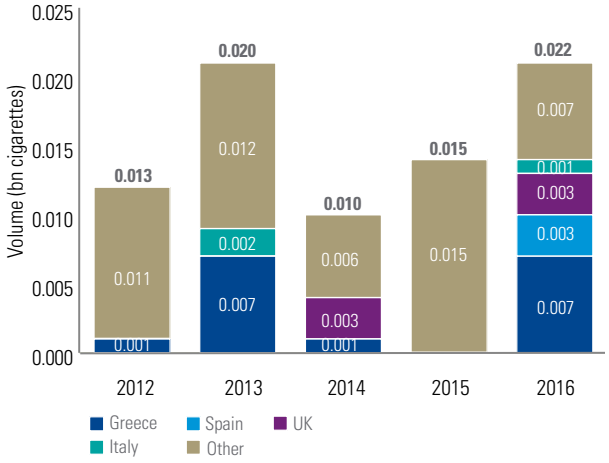
Notes: *(a) In years 2012-2016 non-domestic incidence is stated on sticks basis (b) Illicit Whites with no country specific labelling comprise Illicit Whites labelled as "Duty free" and "Unspecified". Data from previous years reflects the same definition; please refer to the appendix for full methodology (c) The Duty Free and Unspecified inflows exclude Illicit Whites which have Duty Free labelling and unspecified labelling respectively*

Sources: *(1) KPMG EU Flows Model and analysis of data sources provided by manufacturers (2) KPMG analysis of UNWTO Factbook 2012-2015 (3) KPMG analysis of EC Excise Duty tables, January 2017 (Part III – Manufactured Tobacco) and data sources provided by manufacturers*

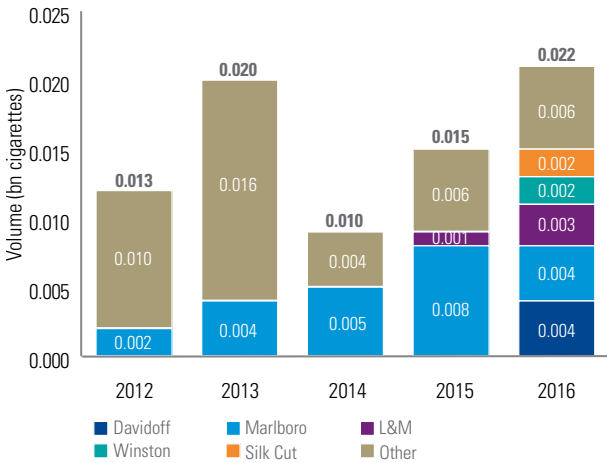
ND(L) and C&C flows

- Non-domestic legal consumption increased by 46%, which is reflective of growth in travel flows between countries in the EU, including Greece, Spain and the UK
- The Illicit Whites brand flows of Double V One, Gaulwaz and MM accounted for 62% of the total C&C volumes
  - Double V One and Gaulwaz are trademark-owned by N.Tobacco Company Limited and manufactured in North Cyprus (which is not under the control of the Republic of Cyprus), while BulgarTabac is the trademark-owner of MM
  - The key driver of the increase in overall C&C volumes was the 27 million increase in Double V One
- All counterfeit identified was Marlboro, with Russian and Ukrainian labelling

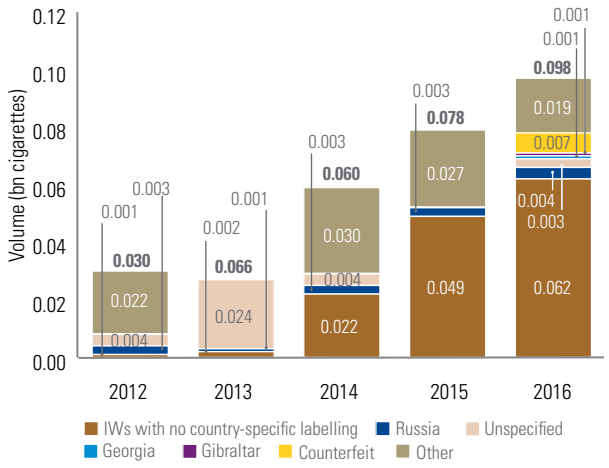
ND(L) by country of origin – 2012-2016[(1)(a)(b)]



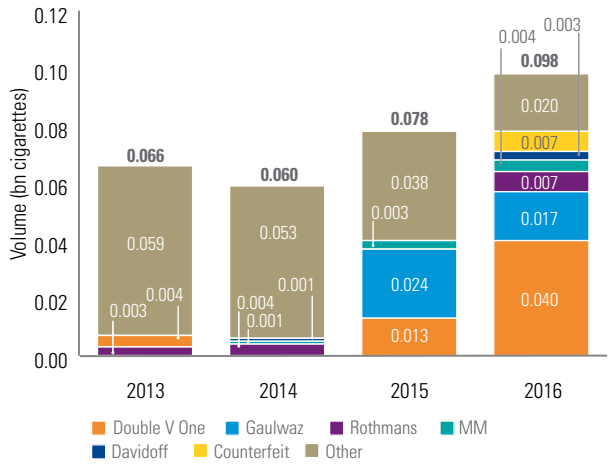
ND(L) by brand – 2012-2016[(1)(a)(b)]



C&C by country of origin – 2012-2016[(1)(a)]



C&C by brand – 2013-2016[(1)(a)]



Notes: *(a) KPMG calculates the split between C&C and ND(L) by calculating the ND(L) volumes and subtracting from the total inflows*
(b) In 2014-2016 the ND(L) analysis was undertaken using border crossings and regional sales data provided by manufacturers; detail surrounding methodology changes is provided in the appendix

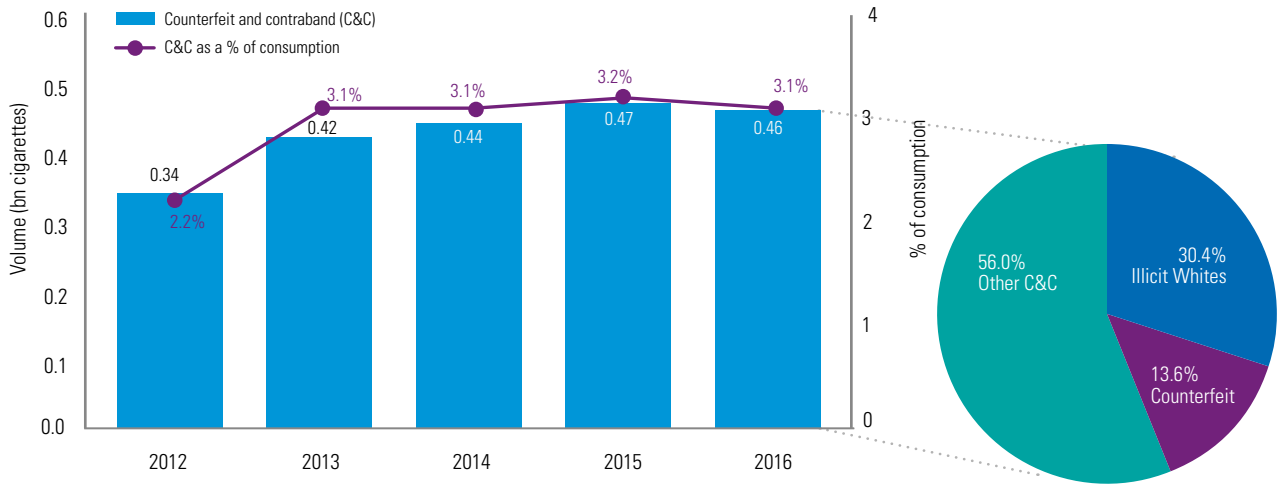
Sources: *(1) KPMG EU flows model and analysis of data sources provided by manufacturers*

Czech Republic

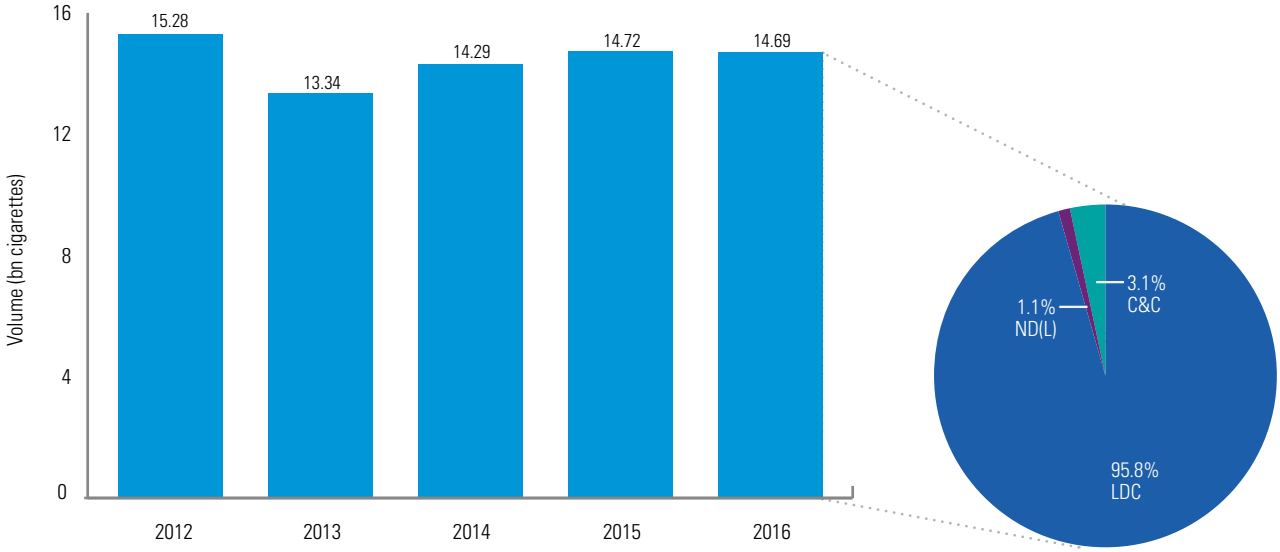
Overview

- Illicit cigarette consumption remained stable at 3.1% of total consumption in 2016, one of the lowest levels in the EU
- C&C in the Czech Republic mainly comprised of cigarettes from the lower priced non-EU countries of Ukraine and Belarus

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2012-2016



Manufactured cigarette consumption – 2012-2016



Key inflows and outflows

Note: *(a) Map shows major flows. Countries which are both source and destination are coded according to the larger flow*

Sources: *(1) KPMG EU Flows Model and analysis of data sources provided by manufacturers (2) EC Excise Duty tables, January 2017 (Part III – Manufactured Tobacco)*

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2012-2016[1][2][a]

TOTAL CZECH REPUBLIC CONSUMPTION						
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**	**2015-16 %**
Legal domestic sales (LDS)	20.46	19.65	19.87	20.13	20.50	2%
Outflows	-5.68	-6.99	-6.16	-6.06	-6.43	6%
Legal domestic consumption (LDC)	14.78	12.67	13.71	14.07	14.07	0%
Non-domestic legal (ND(L))	0.16	0.26	0.14	0.19	0.16	(13%)
Counterfeit and contraband (C&C)	0.34	0.42	0.44	0.47	0.46	(2%)
Total non-domestic	0.50	0.68	0.58	0.65	0.62	(5%)
Total consumption	**15.28**	**13.34**	**14.29**	**14.72**	**14.69**	**(0%)**

The new pack sampling plan in Austria from 2015 reduced flows from Czech Republic, which has impacted domestic consumption.

- The main inflow volumes were from Ukraine, Belarus and Duty Free Labelled cigarettes
  - Cigarettes in Ukraine and Belarus on average are 84% cheaper (average price for a pack of 20 cigarettes in Ukraine is €0.52 and €0.60 Belarus)[3]
  - Almost all flows from these countries were contraband cigarettes as low legal allowances and cross-border travel did not support most of the flow being ND(L)
- The Czech Republic remains a large outflow market as it borders Germany and Austria which have average price differences of €2.36 and €1.47 per pack of 20 respectively[3]

Total inflows by country of origin – 2012-2016[1][b][c]

ND INFLOWS TO CZECH REPUBLIC					
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**
Ukraine	0.16	0.11	0.03	0.08	0.15
Duty Free Labelled	0.08	0.09	0.11	0.13	0.11
Belarus	0.05	0.10	0.13	0.09	0.07
Counterfeit		0.08	0.04	0.04	0.06
IWs with no country-specific labelling	0.04	0.06	0.08	0.08	0.05
Other	0.17	0.24	0.19	0.23	0.17
Total inflows	**0.50**	**0.68**	**0.58**	**0.65**	**0.62**

Total outflows by destination country – 2012-2016[1]

OUTFLOWS FROM CZECH REPUBLIC					
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**
Germany	5.01	6.14	5.45	5.24	5.45
Austria	0.47	0.61	0.47	0.41	0.50
UK	0.06	0.06	0.10	0.18	0.27
France	0.09	0.05	0.02	0.04	0.04
Netherlands	0.05	0.03	0.03	0.02	0.03
Other	0.00	0.08	0.08	0.16	0.13
Total outflows	**5.68**	**6.99**	**6.16**	**6.06**	**6.43**

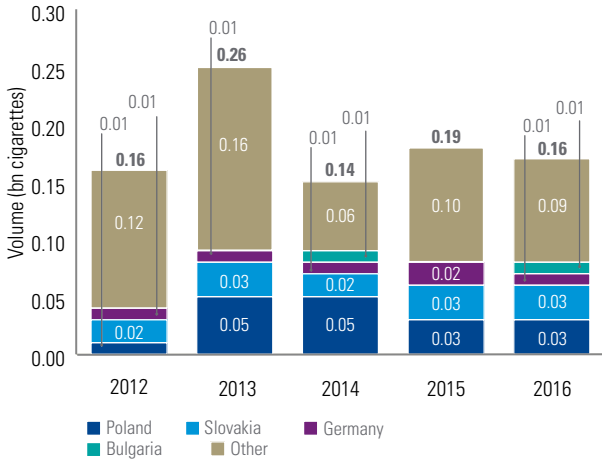
Notes: *(a) In years 2012-2016 non-domestic incidence is stated on sticks basis (b) Illicit Whites with no country specific labelling comprise Illicit Whites labelled as "Duty free" and "Unspecified". Data from previous years reflects the same definition; please refer to the appendix for full methodology (c) The Duty Free and Unspecified inflows exclude Illicit Whites which have Duty Free labelling and unspecified labelling respectively*

Sources: *(1) KPMG EU Flows Model and analysis of data sources provided by manufacturers (2) KPMG analysis of UNWTO Factbook 2012-2015 (3) KPMG analysis of EC Excise Duty tables, January 2017 (Part III – Manufactured Tobacco) and data sources provided by manufacturers*

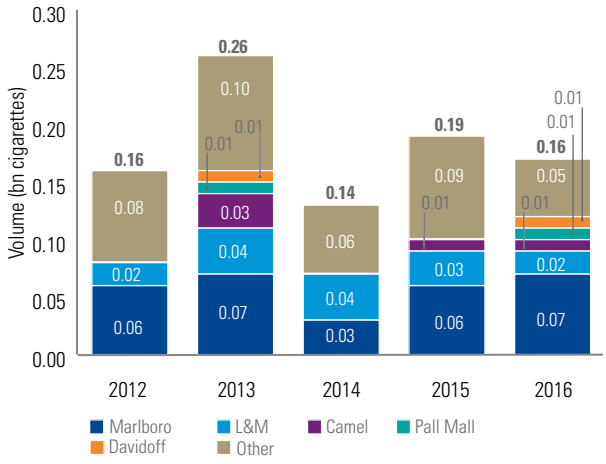
ND(L) and C&C flows

- Approximately 44% of ND(L) came from neighbouring EU countries of Poland, Slovakia and Germany and was reflective of visitors to the Czech Republic rather than cross-border shopping, as cigarettes in the Czech Republic are cheaper (except Slovakia where cigarettes are €0.05 cheaper)[2]
- C&C remained stable in 2016 with Ukrainian and Belarusian labelled products accounting for almost half of the total C&C consumption
  - L&M, mainly from Ukraine, was the largest contraband brand, followed by Fest, trademark owned by Grodno Tobacco

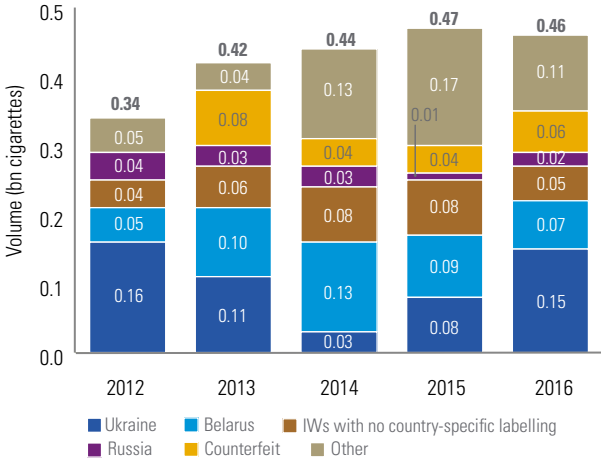
ND(L) by country of origin – 2012-2016[1](a)(b)



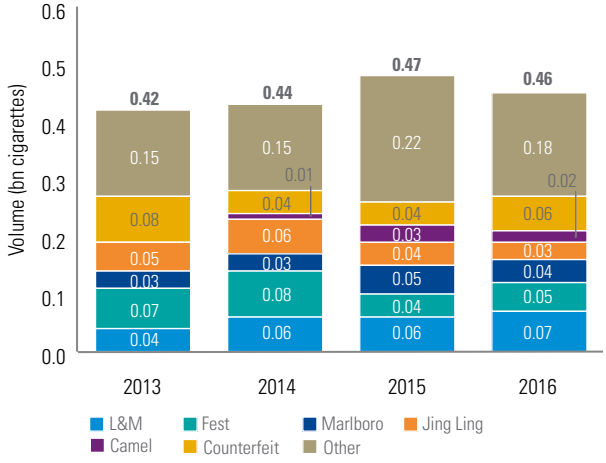
ND(L) by brand – 2012-2016[1](a)(b)



C&C by country of origin – 2012-2016[1](a)



C&C by brand – 2013-2016[1](a)



Notes: *(a) KPMG calculates the split between C&C and ND(L) by calculating the ND(L) volumes and subtracting from the total inflows*
(b) In 2014-2016 the ND(L) analysis was undertaken using border crossings and regional sales data provided by manufacturers; detail surrounding methodology changes is provided in the appendix

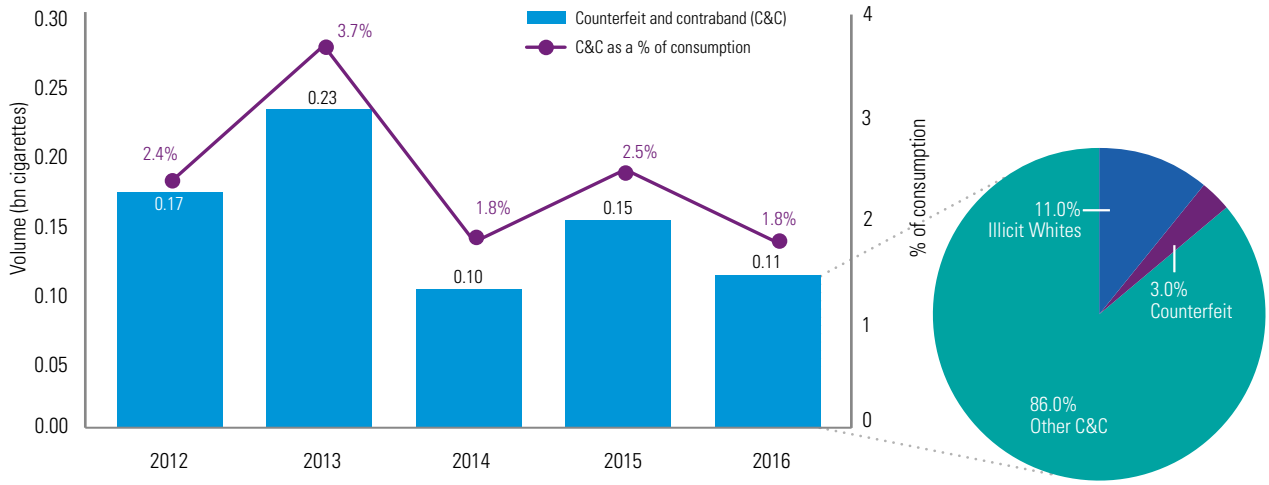
Sources: *(1) KPMG EU flows model and analysis of data sources provided by manufacturers (2) KPMG analysis of EC Excise Duty tables, January 2017 (Part III – Manufactured Tobacco) and data sources provided by manufacturers*

Denmark

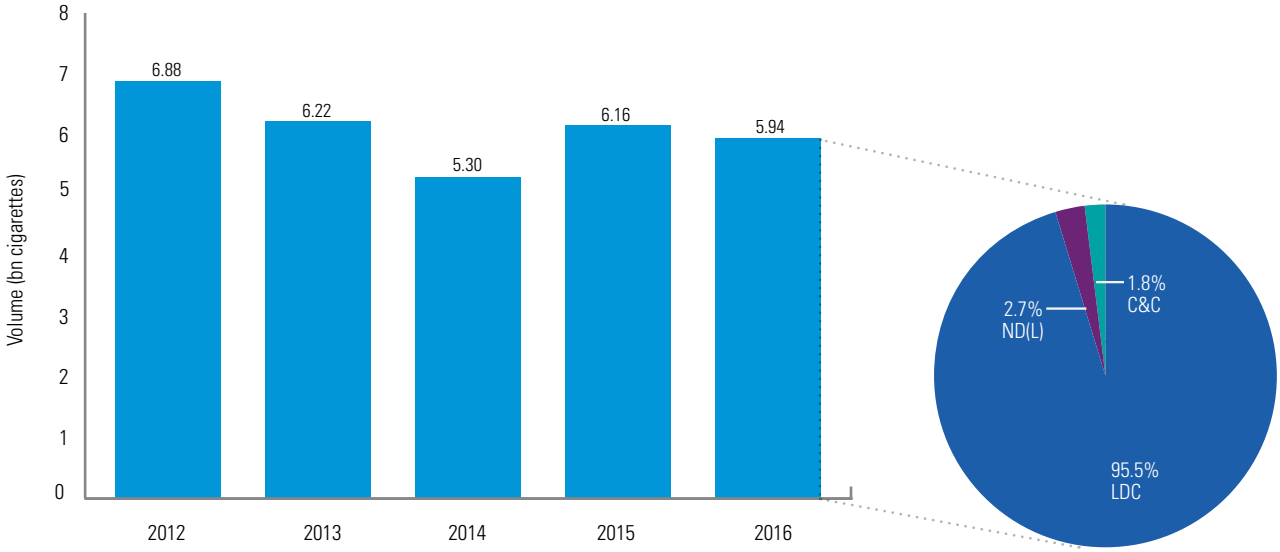
Overview

- C&C in Denmark as a percentage of total consumption remained the lowest in the EU, at 1.8%
- Most non-domestic consumption in Denmark is either ND(L) from neighbouring countries or C&C from countries where the size of the flow is not supported by travel, such as from Poland and Bulgaria

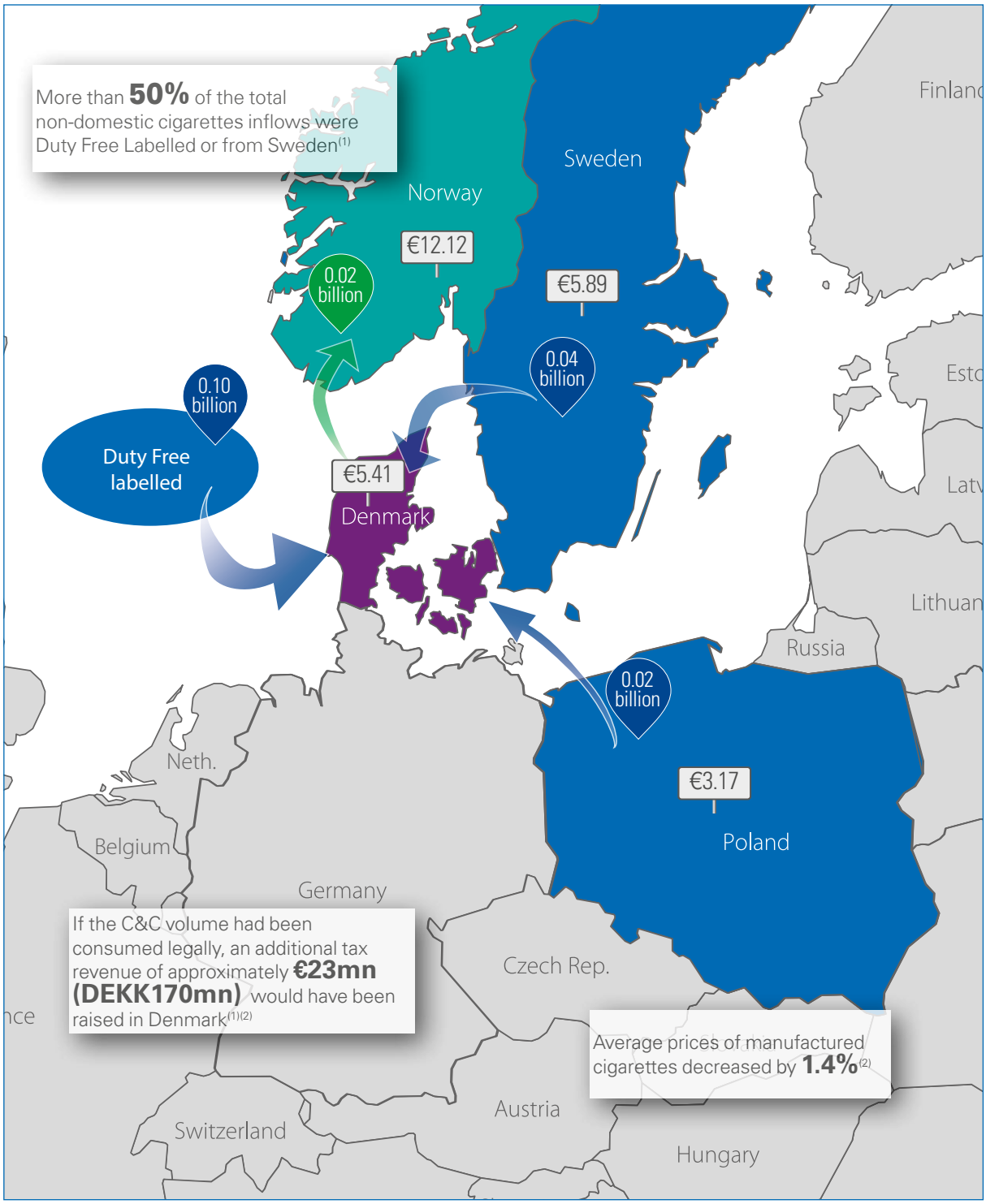
Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2012-2016



Manufactured cigarette consumption – 2012-2016



Key inflows and outflows



Note: *(a) Map shows major flows. Countries which are both source and destination countries are coded according to the larger flow*

Sources: *(1) KPMG EU Flows Model (2) EC Excise Duty tables, January 2017 (Part III – Manufactured Tobacco) and analysis of data sources provided by manufacturers*

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2012-2016[1][2][a]

TOTAL DENMARK CONSUMPTION						
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**	**2015-16 %**
Legal domestic sales (LDS)	6.64	5.95	5.05	5.98	5.78	(3%)
Outflows	-0.15	-0.10	-0.10	-0.17	-0.10	(40%)
Legal domestic consumption (LDC)	6.48	5.85	4.95	5.81	5.67	(2%)
Non-domestic legal (ND(L))	0.23	0.14	0.16	0.20	0.16	(17%)
Counterfeit and contraband (C&C)	0.17	0.23	0.10	0.15	0.11	(30%)
Total non-domestic	0.39	0.37	0.25	0.35	0.27	(23%)
Total consumption	**6.88**	**6.22**	**5.30**	**6.16**	**5.94**	**(4%)**

- Inflows decreased by 23%, driven by a 0.03 billion fall in inflows from Duty free labelled product and a 0.01 billion fall in inflows from Sweden
- Flows into and out of Sweden declined by 34% and 76% respectively from 2015

Total inflows by country of origin – 2012-2016[1][b][c]

ND INFLOWS TO DENMARK					
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**
Duty Free Labelled	0.13	0.16	0.10	0.13	0.10
Sweden	0.04	0.04	0.03	0.05	0.04
Poland	0.02	0.04	0.02	0.02	0.02
Bulgaria	0.01	0.00	0.01	0.01	0.01
Spain	0.01	0.00	0.00	0.00	0.01
Other	0.19	0.13	0.10	0.13	0.09
Total inflows	**0.39**	**0.37**	**0.25**	**0.35**	**0.27**

Total outflows by destination country – 2012-2016[1]

OUTFLOWS FROM DENMARK					
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**
Norway			0.01	0.02	0.02
Netherlands	0.02	0.02	0.03	0.01	0.02
Sweden	0.03	0.01	0.01	0.06	0.01
Germany	0.03	0.01	0.01	0.02	0.01
UK	0.02	0.02	0.01	0.01	0.01
Other	0.05	0.03	0.02	0.04	0.03
Total outflows	**0.15**	**0.10**	**0.10**	**0.17**	**0.10**

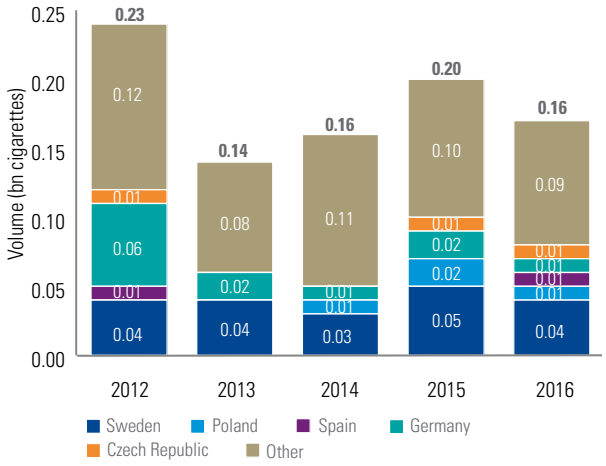
Notes: *(a) In years 2012-2016 non-domestic incidence is stated on sticks basis; prior to this a packs basis was used (b) Illicit Whites with no country specific labelling comprise Illicit Whites labelled as "Duty free" and "Unspecified". Data from previous years reflects the same definition; please refer to the appendix for full methodology (c) The Duty Free and Unspecified inflows exclude Illicit Whites which have Duty Free labelling and unspecified labelling (d) Norway was included for the first time in 2014*

Sources: *(1) KPMG EU Flows Model and analysis of data sources provided by manufacturers (2) KPMG analysis of UNWTO Factbook 2012-2015*

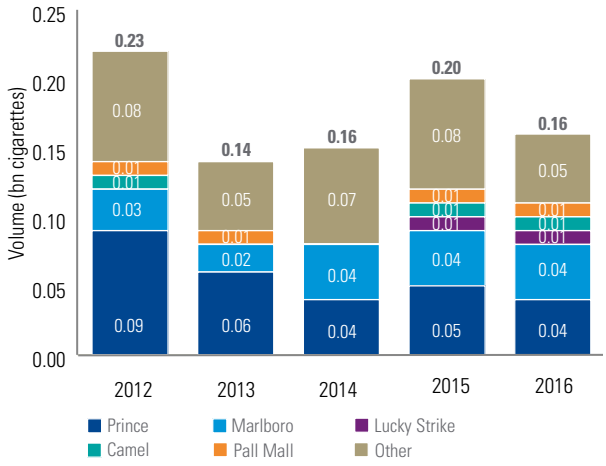
ND(L) and C&C flows

- ND(L) and C&C both declined in 2016
  - ND(L) fell by 17%, as legal flows from Sweden and Poland fell by 34% and 19% respectively as travel flows also declined[1]
  - Illicit White brand flows with no country specific labelling increased by 20%
  - Counterfeit declined by 0.02 billion cigarettes and comprised of Russian labelled Winston and Duty Free labelled L&M and Marlboro

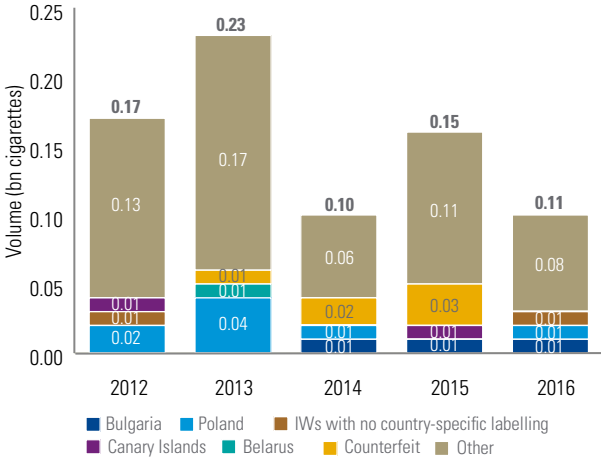
ND(L) by country of origin – 2012-2016[1](a)(b)



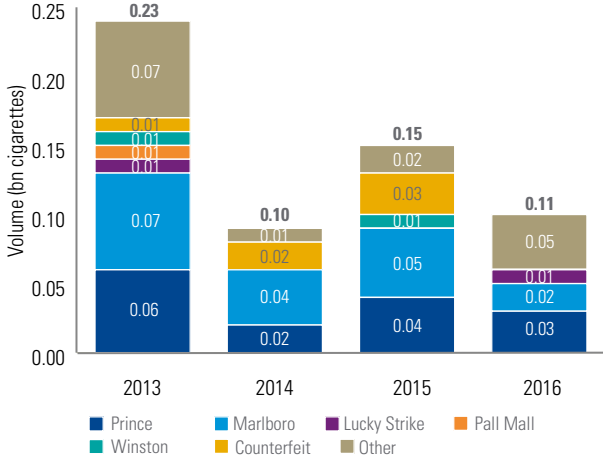
ND(L) by brand – 2012-2016[1](a)(b)



C&C by country of origin – 2012-2016[1](a)



C&C by brand – 2013-2016[1](a)



Notes: *(a) KPMG calculates the split between C&C and ND(L) by calculating the ND(L) volumes and subtracting from the total inflows*
(b) In 2014-2016 the ND(L) analysis was undertaken using border crossings and regional sales data provided by manufacturers; detail surrounding methodology changes is provided in the appendix

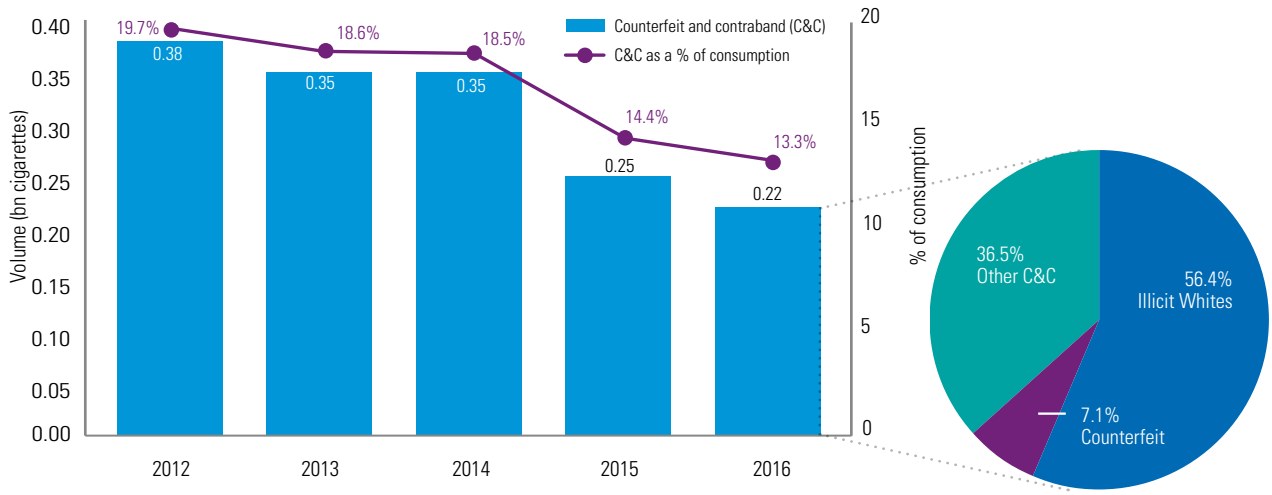
Sources: *(1) KPMG analysis of UNWTO Factbook 2012-2015, EU flows model and data sources provided by manufacturers*

Estonia

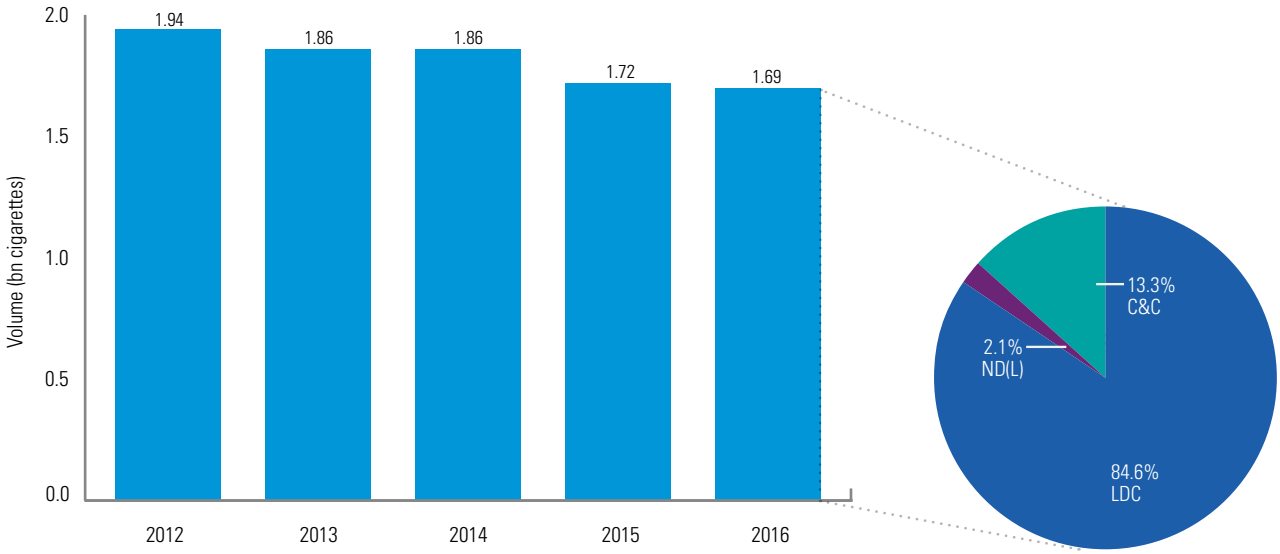
Overview

- C&C volumes continued to decline in 2016, against the backdrop of further regulation and law enforcement
- 74% of C&C flows originated from Russia and Belarus
- Illicit Whites continued to account for the majority of Estonian C&C, despite a 4% decline in their share of C&C consumption

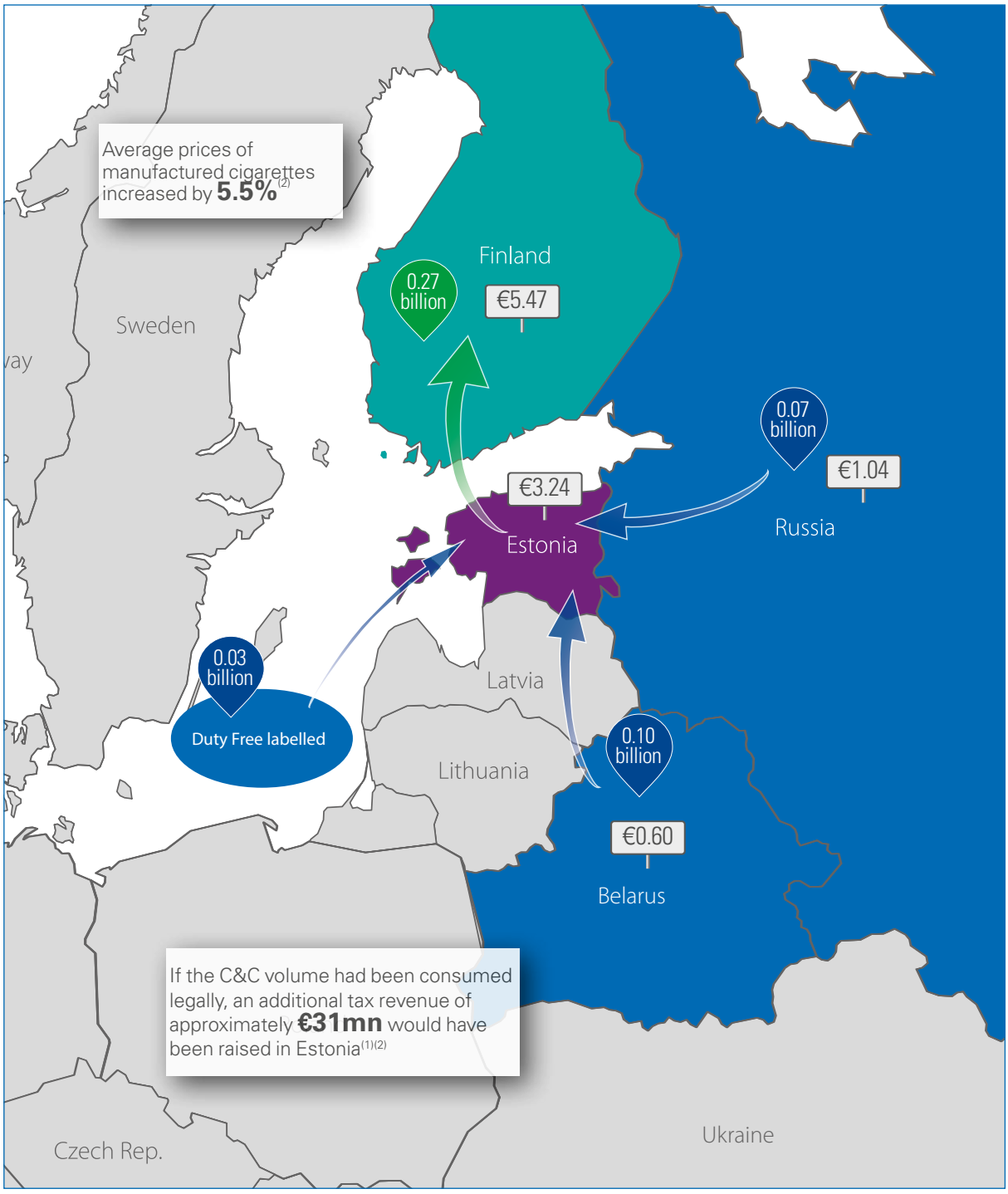
Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2012-2016



Manufactured cigarette consumption – 2012-2016



Key inflows and outflows



Notes: (a) Map shows major flows. Countries which are both source and destination countries are coded according to the larger flow

Sources: (1) KPMG EU Flows Model and analysis of data sources provided by manufacturers (2) EC Excise Duty tables, January 2017 (Part III – Manufactured Tobacco)

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2012-2016[1][2][a]

TOTAL ESTONIA CONSUMPTION						
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**	**2015-16 %**
Legal domestic sales (LDS)	1.71	1.78	1.83	1.80	1.74	(3%)
Outflows	-0.26	-0.34	-0.33	-0.35	-0.31	(12%)
Legal domestic consumption (LDC)	1.45	1.44	1.50	1.45	1.43	(1%)
Non-domestic legal (ND(L))	0.10	0.07	0.02	0.03	0.04	20%
Counterfeit and contraband (C&C)	0.38	0.35	0.35	0.25	0.22	(10%)
Total non-domestic	0.49	0.41	0.37	0.28	0.26	(6%)
Total consumption	**1.94**	**1.86**	**1.86**	**1.72**	**1.69**	**(2%)**

- Russian inflows declined by 39% against a backdrop of security checks on the Russian border[3]
- A 6% price increase in Estonia, accompanied by an 18% increase of Latvian travellers to Estonia contributed to an increase of Latvian inflows[4]
- Overall, outflows declined by 12%, driven by a fall in outflows to France and Finland, potentially due to increased efforts from Estonian tax and customs

Total inflows by country of origin – 2012-2016[1][b][c]

ND INFLOWS TO ESTONIA					
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**
Belarus	0.05	0.11	0.12	0.09	0.10
Russia	0.38	0.25	0.17	0.12	0.07
Duty Free Labelled	0.04	0.03	0.03	0.02	0.03
Counterfeit		0.01	0.03	0.02	0.02
Latvia	0.00	0.00	0.01	0.00	0.02
Other	0.02	0.01	0.01	0.02	0.03
Total inflows	**0.49**	**0.41**	**0.37**	**0.28**	**0.26**

Total outflows by destination country – 2012-2016[1]

OUTFLOWS FROM ESTONIA					
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**
Finland	0.21	0.32	0.29	0.29	0.27
France	0.01	0.00	0.01	0.03	0.01
Norway			0.01	0.01	0.00
Sweden	0.00	0.00	0.01	0.00	0.00
Switzerland			0.00	0.00	0.00
Other	0.04	0.02	0.02	0.01	0.02
Total Outflows	**0.26**	**0.34**	**0.33**	**0.35**	**0.31**

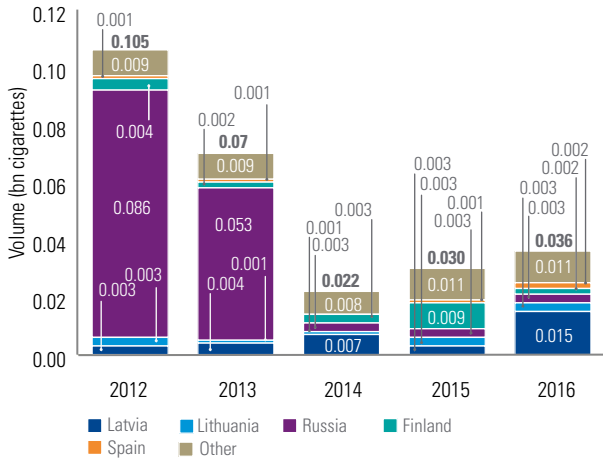
Notes: *(a) Values less than 0.001 are removed for clarity purposes (b) KPMG calculates the split between C&C and ND(L) by calculating the ND(L) volumes and subtracting from the total inflows (c) In 2014 and 2015 the ND(L) analysis was undertaken using border crossings and regional sales data provided by manufacturers; detail surrounding methodology changes is provided in the appendix*

Sources: *(1) KPMG analysis of UNWTO Factbook 2012-2015, EU flows model and data sources provided by manufacturers (2) KPMG Analysis of WTO data, 2016 (3) BBC News, 2017 (4) KPMG analysis of WTO data, 2016; SHIPPAX, official data used by PMI Duty Free Organization*

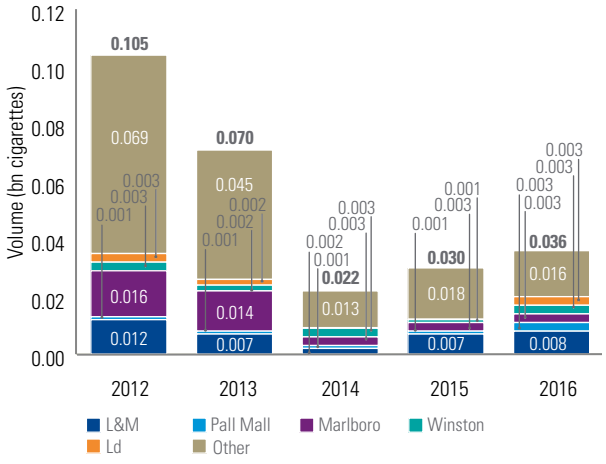
ND(L) and C&C flows

- Non-Domestic Legal from Latvia increased five-fold in 2016 following increased border sales, as more Estonians took advantage of the €0.35 price difference[2]
- Belarus continued to be a major source of C&C, accounting for 43% of illicit cigarette consumption in Estonia
- Illicit White brand flows from NZ, Fest and Premier, trademark owned by Grodno Tobacco, accounted for 44%

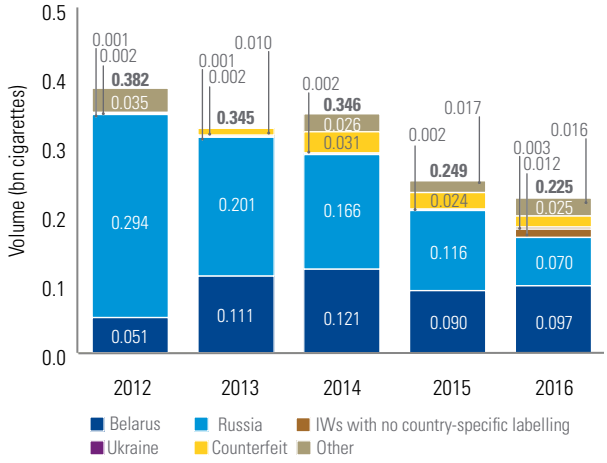
ND(L) by country of origin – 2012-2016[1][a][b]



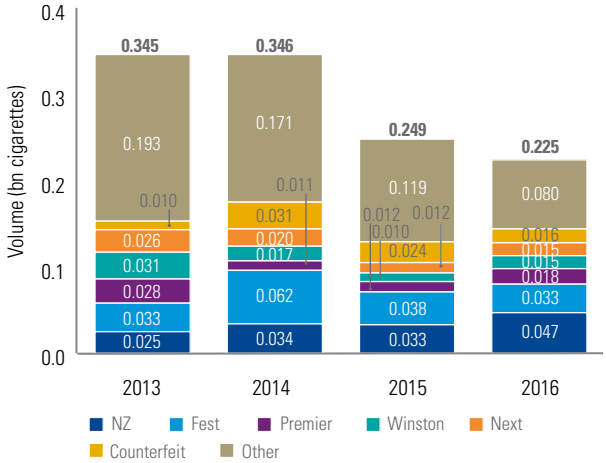
ND(L) by brand – 2012-2016[1][a][b]



C&C by country of origin – 2012-2016[1][a]



C&C by brand – 2013-2016[1][a]



Notes: *(a) Values less than 0.001 are removed for clarity purposes (b) KPMG calculates the split between C&C and ND(L) by calculating the ND(L) volumes and subtracting from the total inflows (c) In 2014 and 2015 the ND(L) analysis was undertaken using border crossings and regional sales data provided by manufacturers; detail surrounding methodology changes is provided in the appendix*

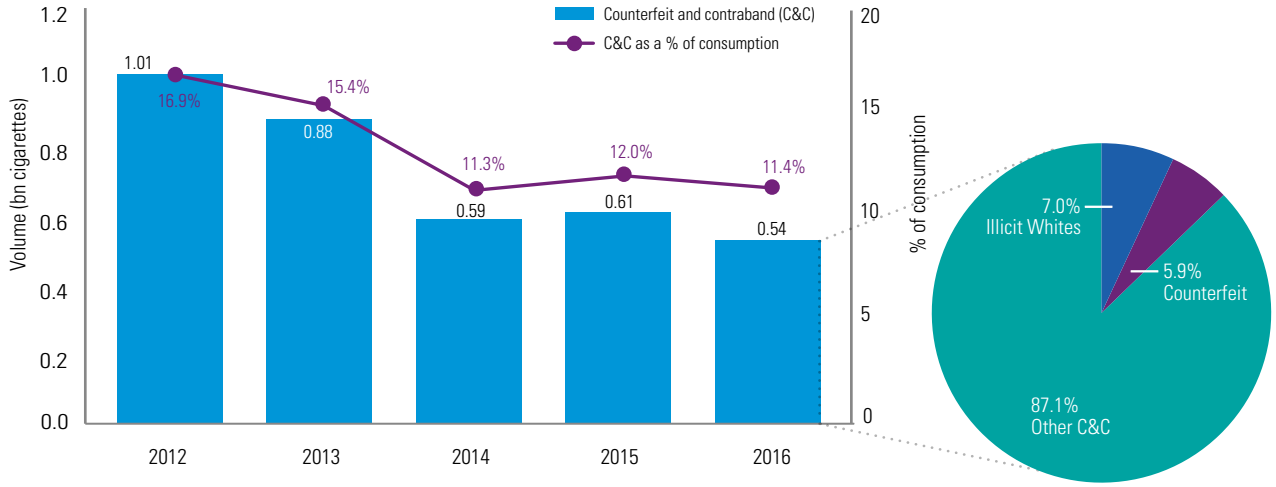
Sources: *(1) KPMG analysis of UNWTO Factbook 2012-2015, EU flows model and data sources provided by manufacturers (2) KPMG Analysis of WTO data, 2016*

Finland

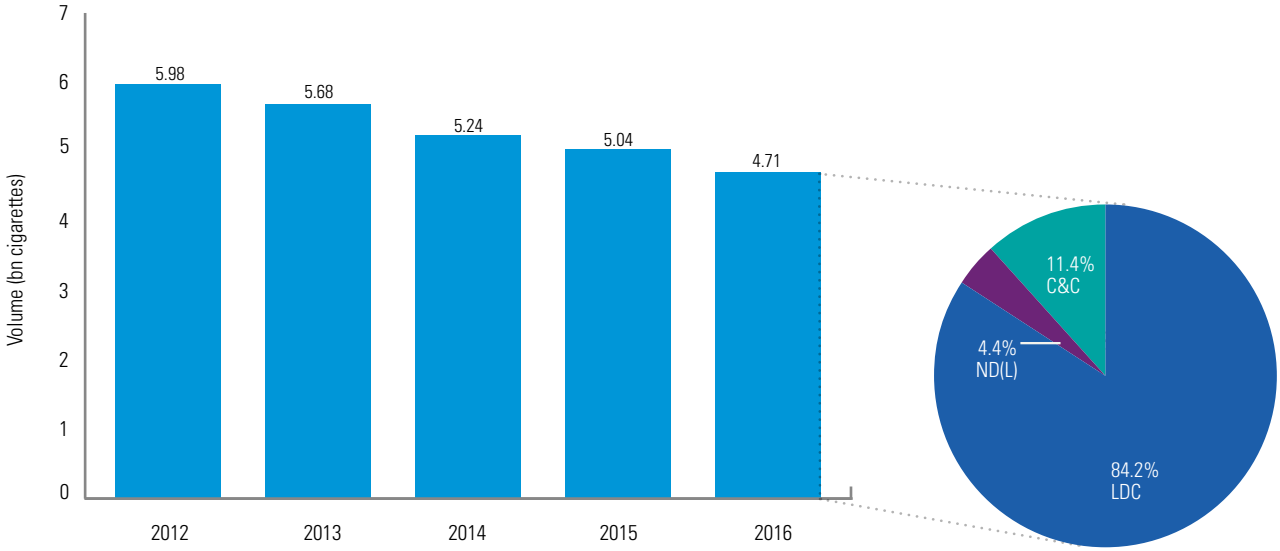
Overview

- C&C declined by 11% as a percentage of total consumption, against the backdrop of tighter regulations on importing tobacco across the Russian border
- Non-domestic consumption remained stable, despite the introduction of a new regulation in August limiting personal tobacco imports from non-EEA individuals
- Estonia continued to be the largest source of non-domestic cigarettes, reflecting an increase of travel flows and a price difference of €2.44

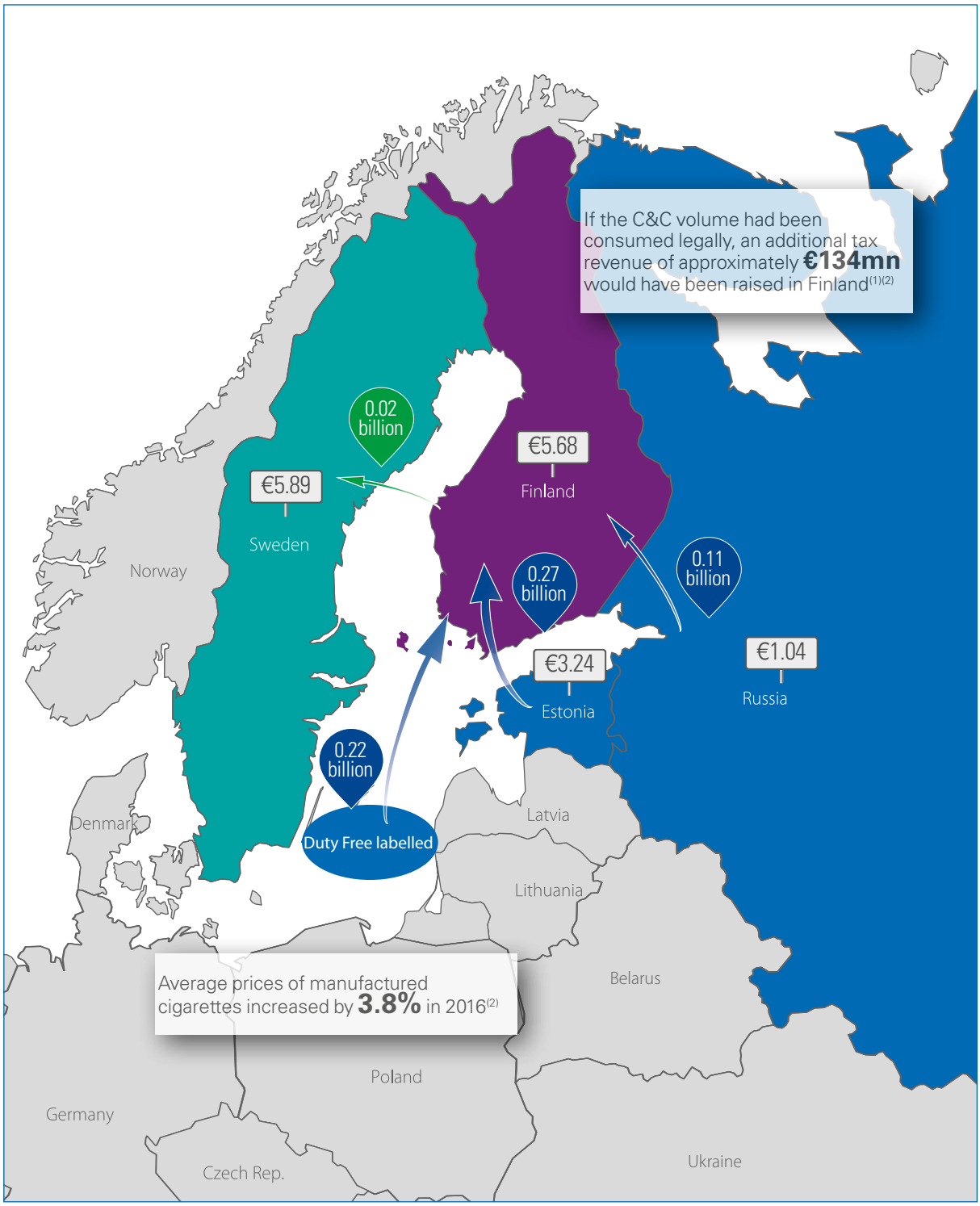
Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2012-2016



Manufactured cigarette consumption – 2012-2016



Key inflows and outflows



Note: *(a) Map shows major flows. Countries which are both source and destination countries are coded according to the larger flow*

Sources: *(1) KPMG EU Flows Model and analysis of data sources provided by manufacturers (2) EC Excise Duty tables, January 2017 (Part III – Manufactured Tobacco)*

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2012-2016[1][2][a]

TOTAL FINLAND CONSUMPTION						
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**	**2015-16 %**
Legal domestic sales (LDS)	4.649	4.492	4.431	4.197	4.004	(5%)
Outflows	-0.043	-0.017	-0.046	-0.072	-0.040	(45%)
Legal domestic consumption (LDC)	4.606	4.475	4.385	4.124	3.965	(4%)
Non-domestic legal (ND(L))	0.364	0.328	0.263	0.311	0.208	(33%)
Counterfeit and contraband (C&C)	1.009	0.876	0.593	0.606	0.539	(11%)
Total non-domestic	1.372	1.204	0.856	0.918	0.747	(19%)
Total consumption	**5.978**	**5.679**	**5.241**	**5.042**	**4.711**	**(7%)**

- Total cigarette consumption declined by 7% as smoking prevalence in Finland fell from 18.4% to 14.7% in 2016
- Inflows reduced, particularly from Russia, following the introduction of the Tobacco Act (EU TPD2) in August, in which private cigarette imports are only permitted by individuals who have been outside of Finland for more than 24 hours[3]
- Finnish prices increased by €0.21, reflected in the 44% decrease of outflows
  - Outflows to Sweden increased by 27% as the price gap widened from €0.12 to €0.22

Total inflows by country of origin – 2012-2016[1][b][c]

ND INFLOWS TO FINLAND					
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**
Estonia	0.210	0.317	0.294	0.291	0.266
Duty Free Labelled	0.200	0.245	0.215	0.253	0.224
Russia	0.816	0.434	0.243	0.191	0.113
Counterfeit	0.001	0.003	0.006	0.013	0.032
Spain	0.007	0.005	0.003	0.009	0.007
Other	0.139	0.200	0.096	0.162	0.106
Total inflows	**1.372**	**1.204**	**0.856**	**0.918**	**0.747**

Total outflows by destination country – 2012-2016[1]

OUTFLOWS FROM FINLAND					
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**
Sweden	0.003	0.003	0.004	0.013	0.017
UK	0.011	0.003	0.007	0.009	0.007
Norway	0.000	0.000	0.004	0.007	0.004
Greece	0.005	0.000	0.000	0.005	0.002
Estonia	0.004	0.002	0.003	0.009	0.002
Other	0.021	0.009	0.027	0.029	0.008
Total outflows	**0.043**	**0.017**	**0.046**	**0.072**	**0.040**

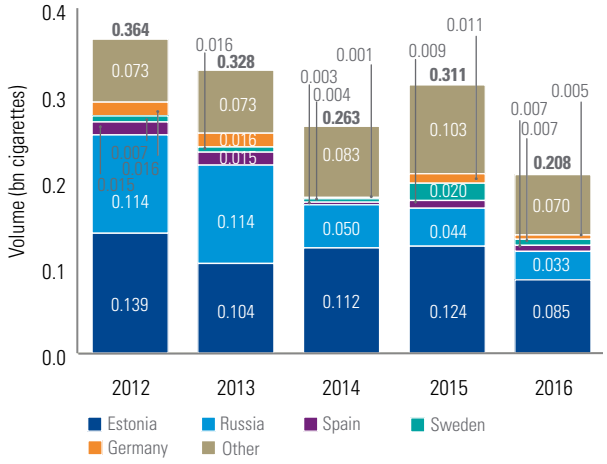
Notes: *(a) In years 2012-2016 non-domestic incidence is stated on sticks basis (b) Illicit Whites with no country specific labelling comprise Illicit Whites labelled as "Duty free" and "Unspecified". Data from previous years reflects the same definition; please refer to the appendix for full methodology (c) The Duty Free and Unspecified inflows exclude Illicit Whites which have Duty Free labelling and unspecified labelling*

Sources: *(1) KPMG EU Flows Model and analysis of data sources provided by manufacturers (2) KPMG analysis of UNWTO Factbook 2012-2015 (3) Ministry of Social Affairs and Health, Finland Press Release (2016)*

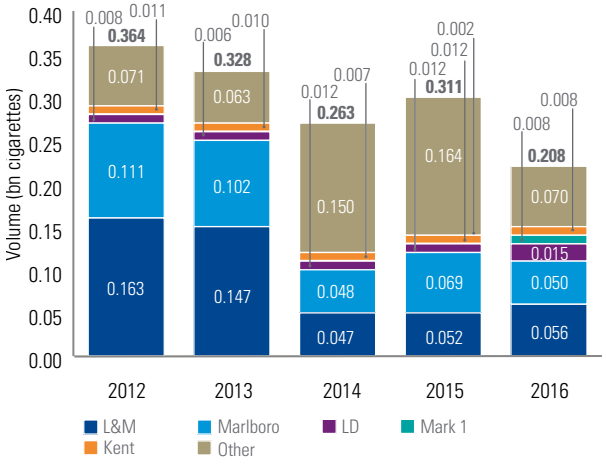
ND(L) and C&C flows

- ND(L) has decreased against the backdrop of a 12% decline of overall travel flows in 2016[1]
  - Marlboro and L&M continued to be the largest ND(L) brands, accounting for 51% of the market
- Total C&C declined by 11%, which may be due to greater regulation and improving personal disposable income in Finland[2]
  - The largest decline came from Russia (46%)
- C&C flows from Estonia increased by 9%, largely consisting of Marlboro, L&M and LD

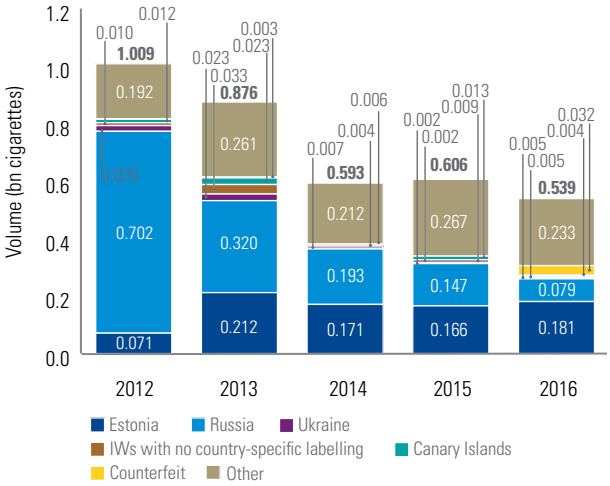
ND(L) by country of origin – 2012-2016[1](a)(b)



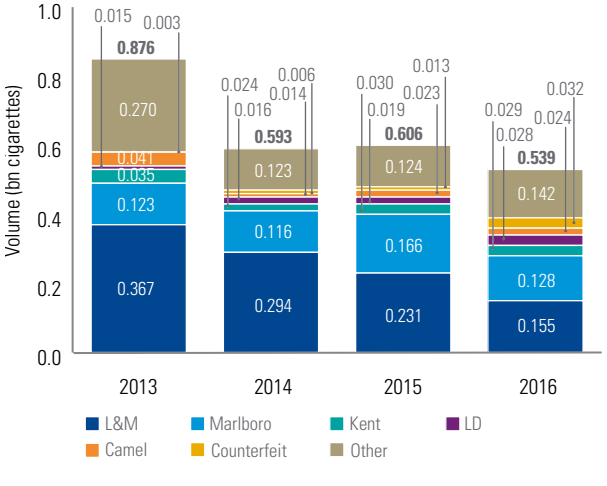
ND(L) by brand – 2012-2016[1](a)(b)



C&C by country of origin – 2012-2016[1](a)



C&C by brand – 2013-2016[1](a)



Notes: *(a) KPMG calculates the split between C&C and ND(L) by calculating the ND(L) volumes and subtracting from the total inflows (b) In 2014 to 2016 the ND(L) analysis was undertaken using border crossings and regional sales data provided by manufacturers; detail surrounding methodology changes is provided in the appendix*

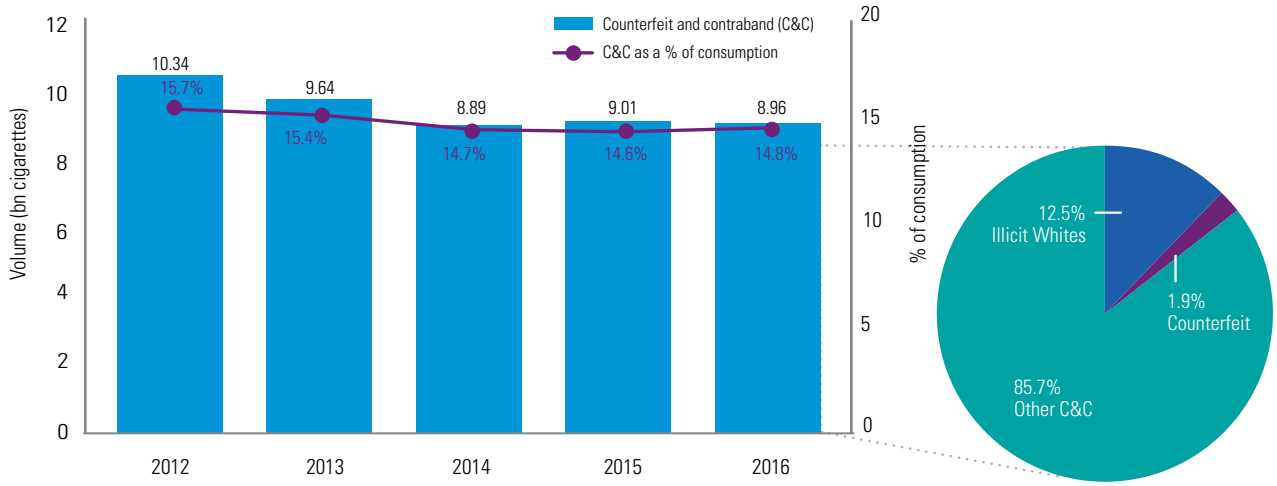
Sources: *(1) KPMG analysis of UNWTO Factbook 2012-2015, EU flows model and data sources provided by manufacturers (2) OECD data, 2017*

France

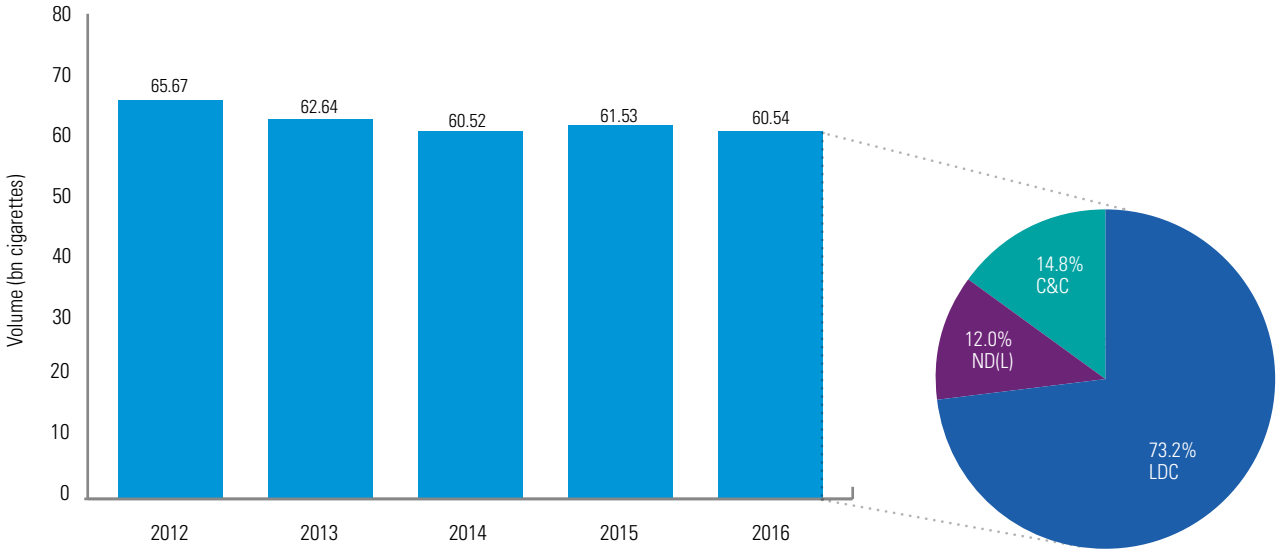
Overview

- C&C volumes in France remained the highest in the EU, at almost 9.0 billion cigarettes, while C&C as a share of total consumption remained stable at 14.8%
- Algeria was the highest source of C&C, accounting for 31% of total flows in 2016
- Despite declining by 19%, Illicit White brand flows continued to account for 12% of C&C
- Inflows from neighbouring countries declined against a backdrop of stable prices in France and lower border travel

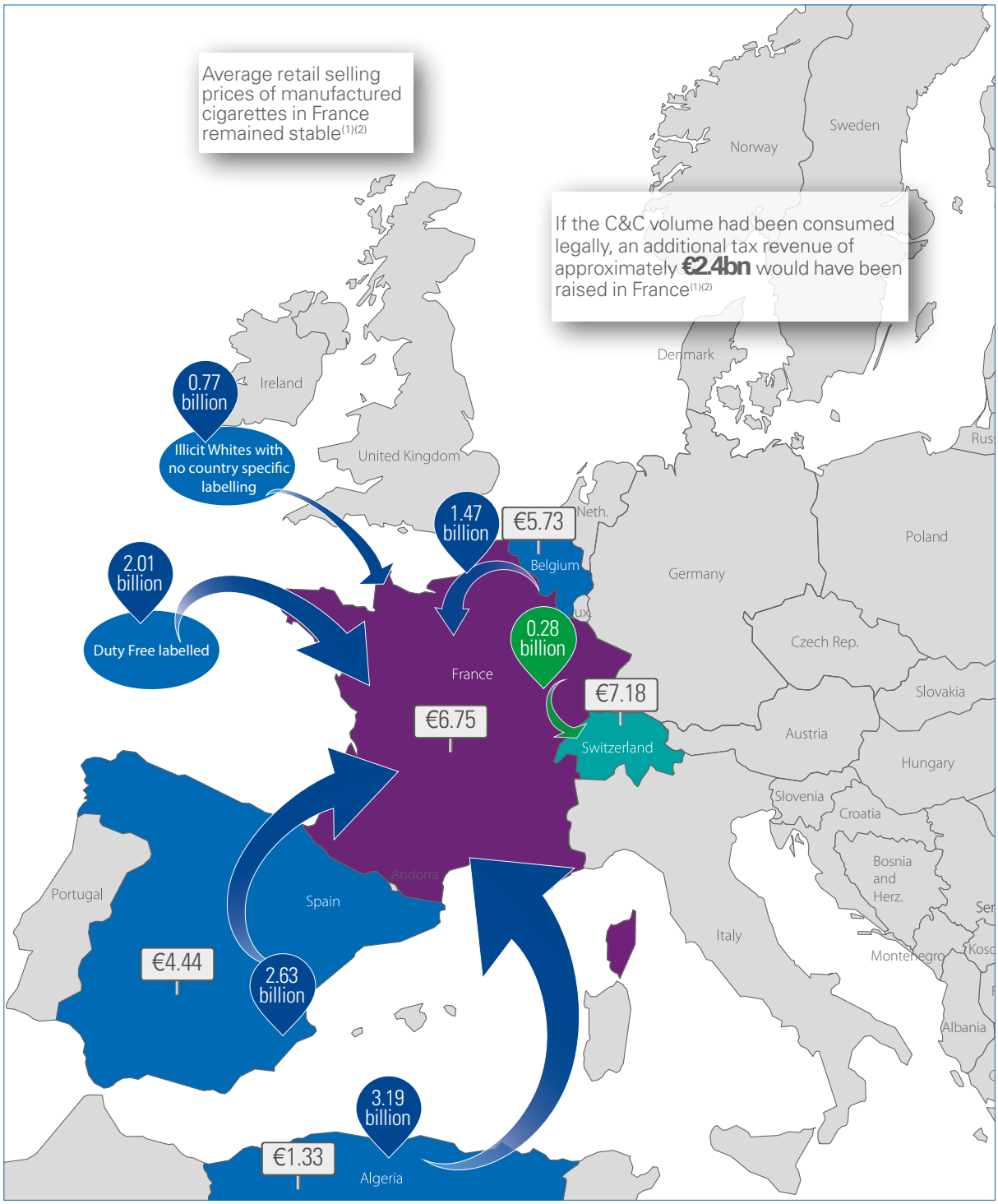
Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2012-2016



Manufactured cigarette consumption – 2012-2016



Key inflows and outflows



Note: *(a) Map shows major flows. Countries which are both source and destination countries are coded according to the larger flow*

Sources: *(1) KPMG EU Flows Model (2) EC Excise Duty tables (Part III – Manufactured Tobacco) and analysis of data sources provided by manufacturers*

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2012-2016[1][2][a][b]

TOTAL FRANCE CONSUMPTION						
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**	**2015-16 %**
Legal domestic sales (LDS)	51.46	47.53	45.08	45.46	44.93	(1%)
Outflows	-0.63	-0.66	-0.47	-0.60	-0.61	2%
Legal domestic consumption (LDC)	50.83	46.87	44.61	44.85	44.31	(1%)
Non-domestic legal (ND(L))	4.50	6.13	7.02	7.67	7.50	(2%)
Counterfeit and contraband (C&C)	10.34	9.64	8.89	9.01	8.96	(1%)
Total non-domestic	14.84	15.77	15.91	16.68	16.46	(1%)
Total consumption	**65.67**	**62.64**	**60.52**	**61.53**	**60.77**	**(1%)**

- Overall consumption remained stable, as the market experienced no price rises and phased changes driven by the EU TPDII (Tobacco Products Directive)
  - Firms were allowed to sell branded packs until January 2017 before switching to plain packaging[4]
- Inflows from neighbouring countries declined, against a backdrop of lower travel and narrowing price gaps
  - A price increase of 4% in Belgium, which narrowed the price gap to €1 per pack, and lower levels of border travel may have resulted in the 13% decline in Belgian inflows
  - Spanish inflows remained stable, as tourism to Spain declined by 3% along with a 5% fall in reported border sales

Total inflows by country of origin – 2012-2016[1][c][d]

Following a review of production volumes in Algeria in 2016 the flow has been further down-weighted by 0.3 billion cigarettes

ND INFLOWS TO FRANCE					
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**
Algeria	1.08	2.00	2.68	3.22	3.19
Spain	2.33	1.84	2.70	2.70	2.63
Duty Free Labelled	3.11	2.59	2.68	1.99	2.01
Belgium	1.01	2.00	2.08	1.69	1.47
Luxembourg	1.11	1.08	1.11	0.93	0.84
Other	6.19	6.26	4.65	6.15	6.31
Total inflows	**14.84**	**15.77**	**15.91**	**16.68**	**16.46**

Total outflows by destination country – 2012-2016[1]

OUTFLOWS FROM FRANCE					
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**
Switzerland			0.04	0.09	0.28
Netherlands	0.16	0.14	0.13	0.10	0.08
Italy	0.14	0.07	0.05	0.10	0.04
UK	0.09	0.02	0.03	0.04	0.03
Ireland	0.02	0.01	0.02	0.01	0.03
Other	0.22	0.42	0.20	0.27	0.14
Total outflows	**0.63**	**0.66**	**0.47**	**0.60**	**0.61**

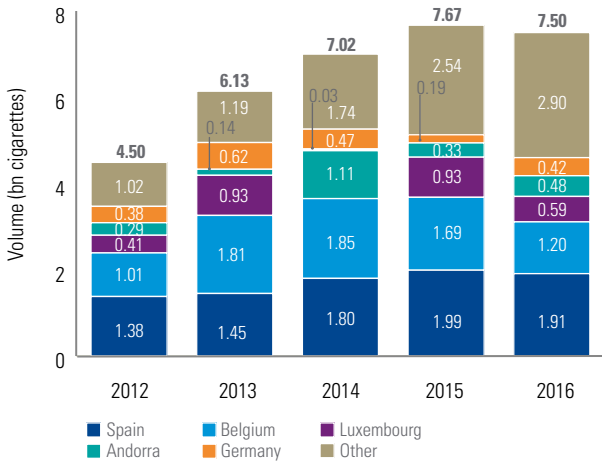
Note: *(a) In years 2012-2016 non-domestic incidence is stated on sticks basis; prior to this a packs basis was used (b) Illicit Whites with no country specific labelling comprise Illicit Whites labelled as "Duty free" and "Unspecified". Data from previous years reflects the same definition; please refer to the appendix for full methodology (c) The Duty Free and Unspecified inflows exclude Illicit Whites which have Duty Free labelling and unspecified labelling (d) Duty Free labelled product was adjusted in 2016 to be bring French duty free labelled product in line with market sales*

Sources: *(1) KPMG EU Flows Model and analysis of data sources provided by manufacturers (2) KPMG analysis of UNWTO Factbook 2012-2015 (3) KPMG analysis of EC Excise Duty tables, January 2017 (Part III – Manufactured Tobacco) and data sources provided by manufacturers (4) The transposition of the Tobacco Directive entered into force on May 20th 2016 with a 6-month transition period until November 20th. Retailers had until January 1st 2017 to deplete their stocks of branded and capsules products*

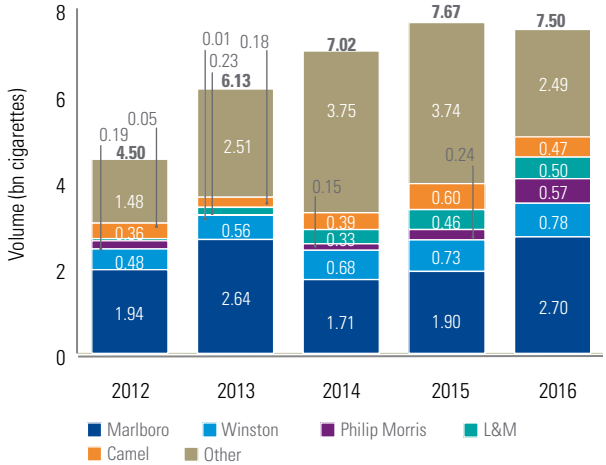
ND(L) and C&C flows

- Non-domestic legal flows from Spain, France, and Luxembourg declined reflecting travel trends in 2016
- Romania and Senegal, which accounted for 1.09 billion cigarettes of C&C in 2015, declined by 32% and 50% respectively to 0.67 billion cigarettes
- Despite declining by 36%, American Legend remained the largest Illicit White brand, accounting for 44% of total Illicit White brand flows
- In 2016, 441 tonnes of tobacco and cigarettes were seized by customs, the third highest total in 25 years[2]
- Flows from Algeria accounted for 31% of total C&C, with the majority of the product identified as Marlboro. Travel volumes and the limit of 200 cigarettes per trip do not support the volumes identified in France, resulting in 87% of the Algerian flow reported as contraband

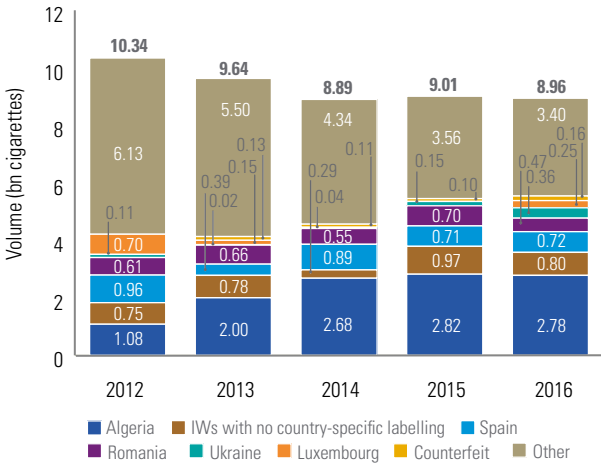
ND(L) by country of origin – 2012-2016[1](a)(b)



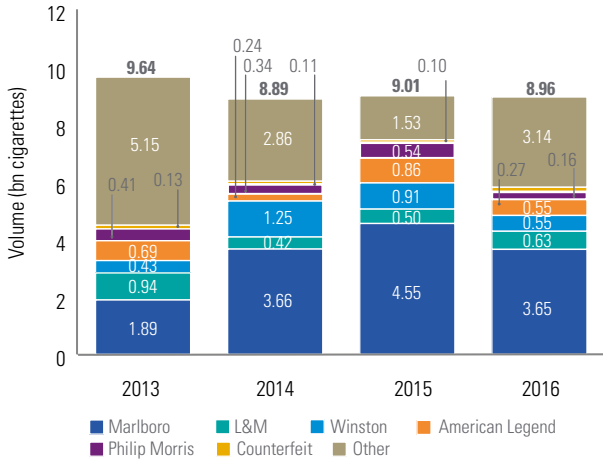
ND(L) by brand – 2012-2016[1](a)(b)



C&C by country of origin – 2012-2016[1](a)



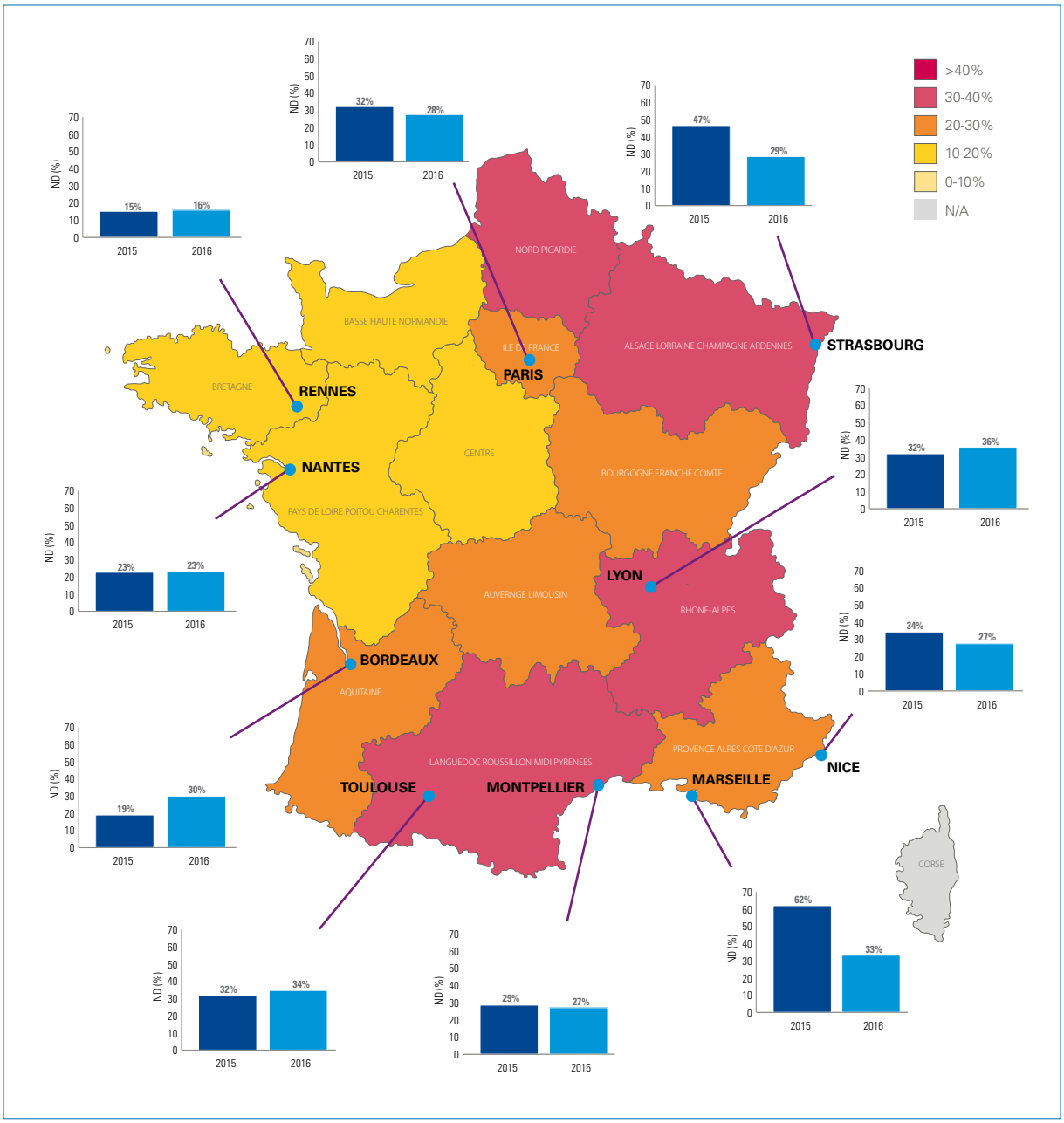
C&C by brand – 2013-2016[1](a)



Notes: *(a) KPMG calculates the split between C&C and ND(L) by calculating the ND(L) volumes and subtracting from the total inflows (b) In years 2014-2016 the ND(L) analysis was undertaken using border crossings and regional sales data provided by manufacturers; detail surrounding methodology changes is provided in the appendix (c) Additional information about the process for identifying Illicit Whites is provided in the appendix*

Sources: *(1) KPMG analysis of UNWTO Factbook 2012-2015, EU flows model and data sources provided by manufacturers (2) Douane et droits indirect, Results 2016*

Non-domestic incidence by region and cities



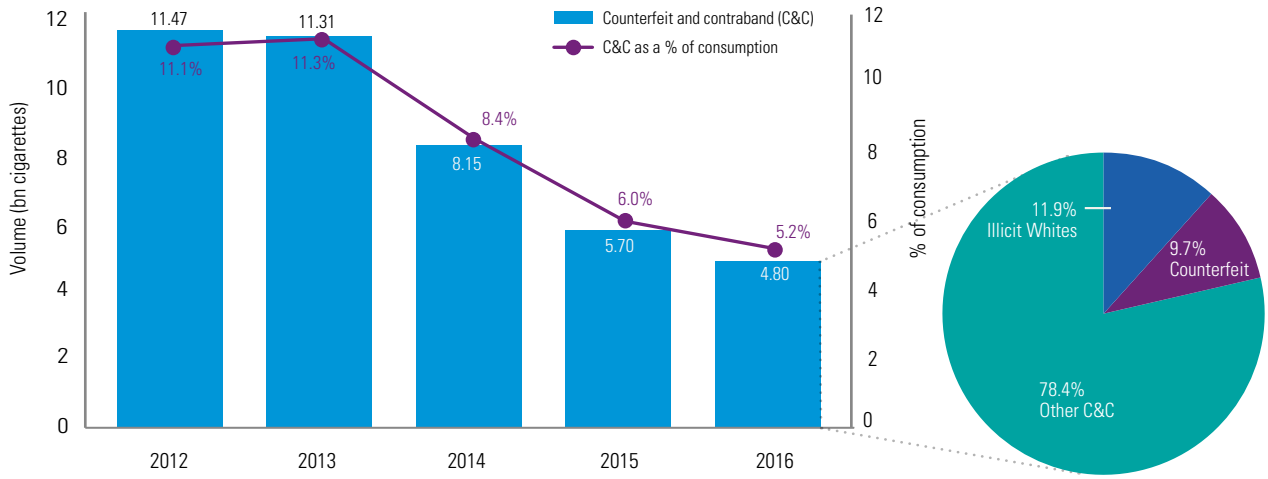
Source: *Independent agency Empty Pack Survey, 2016*

Germany

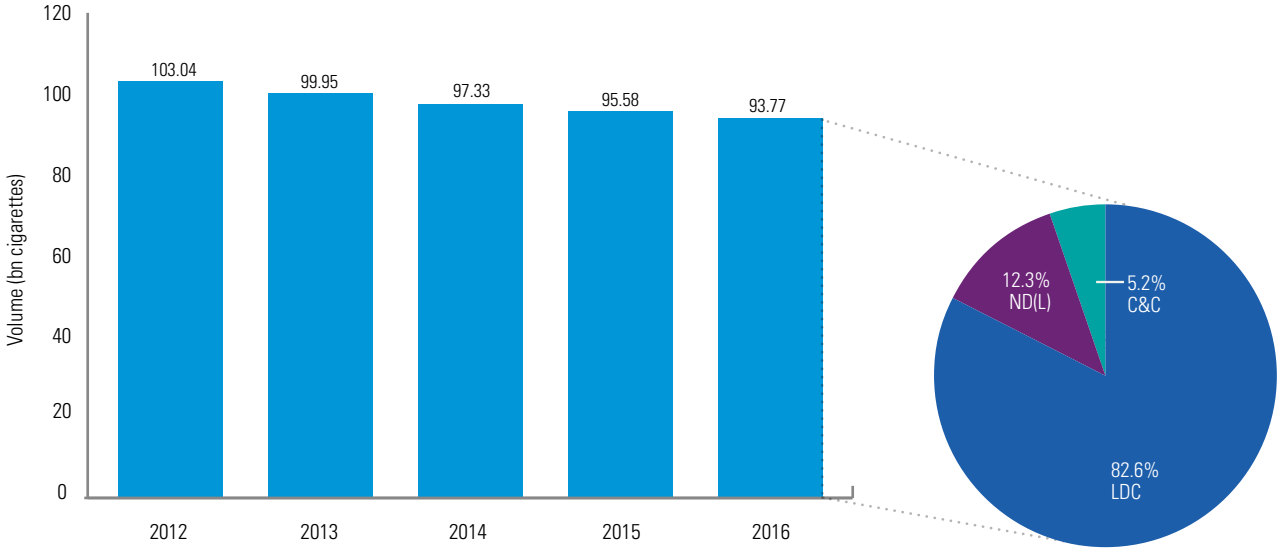
Overview

- Illicit cigarette consumption declined to 5.2% of total consumption, representing a total volume of 4.8 billion cigarettes
- The majority of illicit cigarettes were contraband from lower priced countries such as Poland, Czech Republic Belarus and Ukraine which together accounted for 52% of total C&C inflows
- Legal domestic consumption declined by 3% against a backdrop of limited price increases and a stable macro economic environment[1]

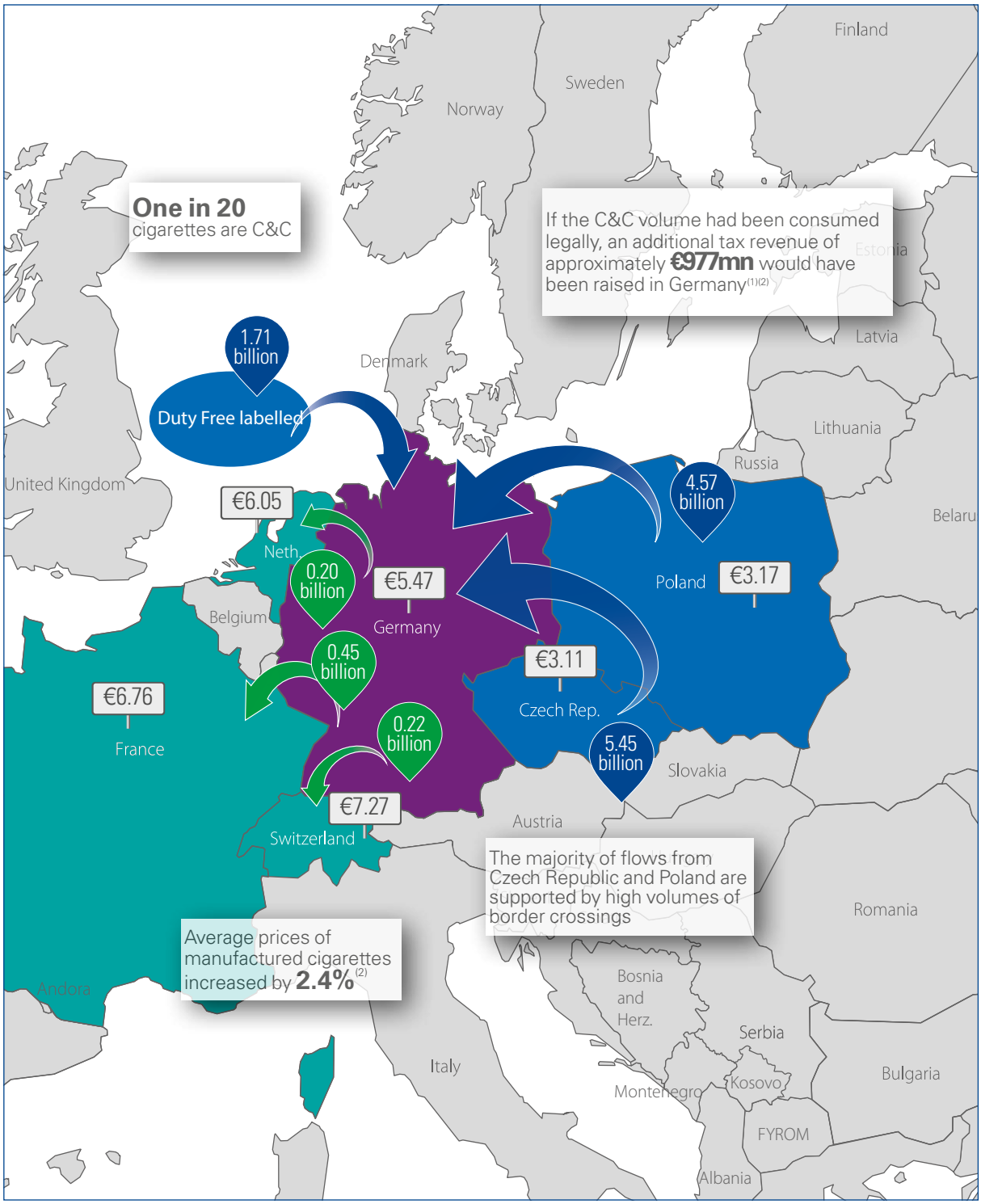
Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2012-2016



Manufactured cigarette consumption – 2012-2016



Key inflows and outflows



Note: *(a) Map shows major flows. Countries which are both source and destination countries are coded according to the larger flow*

Sources: *(1) KPMG EU Flows Model and analysis of data sources provided by manufacturers (2) EC Excise Duty tables (Part III – Manufactured Tobacco)*

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2012-2016[1][2][a][b]

TOTAL GERMANY CONSUMPTION						
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**	**2015-16 %**
Legal domestic sales (LDS)	83.44	79.63	80.35	80.04	78.13	(2%)
Outflows	-1.37	-1.42	-1.49	-1.42	-1.27	(11%)
Legal domestic consumption (LDC)	82.07	78.21	78.86	78.62	76.86	(2%)
Non-domestic legal (ND(L))	9.50	10.43	10.32	11.26	11.42	1%
Counterfeit and contraband (C&C)	11.47	11.31	8.15	5.70	4.80	(16%)
Total non-domestic	20.98	21.73	18.47	16.96	16.22	(4%)
Total consumption	**103.04**	**99.95**	**97.33**	**95.58**	**93.08**	**(3%)**

Additional information has been provided in the Yellow Bag Survey results this year and this has allowed us to more accurately estimate cigarette consumption in Germany

- Approximately 62% of the non-domestic product coming into Germany is from the neighbouring Czech Republic and Poland
- The Czech Republic overtook Poland to become the highest inflow country in 2015, and this trend continued in 2016, reflecting greater price increases in Poland over the past 3 years, compared to the Czech Republic
- The Czech Republic average price increased by 8% over 3 years to €3.11, whereas the Polish average price increased 13% to €3.17[3]
- Outflows are reflective of cross-border purchases to higher priced neighbouring countries such as France, Switzerland and Netherlands

Total inflows by country of origin – 2012-2016[1][b][c][d]

ND INFLOWS TO GERMANY					
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**
Czech Republic	5.01	6.14	5.45	5.24	5.45
Poland	8.54	7.54	5.67	4.79	4.57
Duty Free Labelled	1.67	1.92	1.84	1.81	1.71
Belarus	0.64	0.96	0.98	0.72	0.48
Luxembourg	0.46	0.45	0.48	0.31	0.48
Other	4.66	4.72	4.06	4.09	3.54
Total inflows	**20.98**	**21.73**	**18.47**	**16.96**	**16.22**

Total outflows by destination country – 2012-2016[1]

OUTFLOWS FROM GERMANY					
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2015**
France	0.52	0.62	0.47	0.45	0.45
Switzerland			0.17	0.26	0.22
Netherlands	0.33	0.33	0.36	0.27	0.20
Austria	0.05	0.05	0.14	0.06	0.06
Other	0.47	0.41	0.36	0.13	0.33
Total Outflows	**1.37**	**1.42**	**1.49**	**1.42**	**1.27**

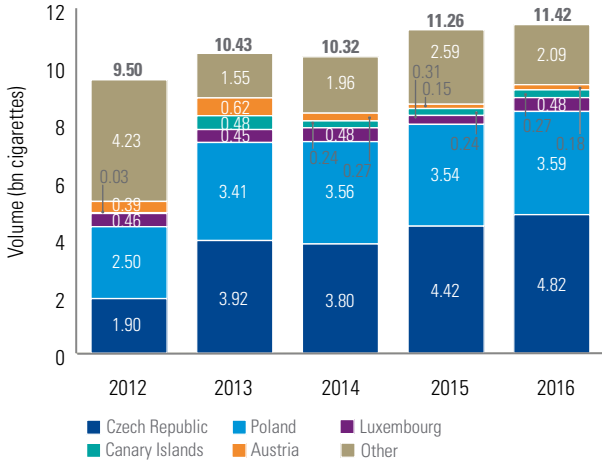
Notes: *(a) Additional information has been provided in the Yellow Bag Survey results this year and this has allowed us to more accurately estimate cigarette consumption in Germany (b) In 2014 and 2015 a refined pack collection methodology was implemented. This technical change accounted for approximately two thirds of the decline in C&C volume between 2013-14 and approximately one fifth of the decline in C&C volume between 2014-15 (c) The Duty Free and Unspecified inflows exclude Illicit Whites which have Duty Free labelling and unspecified labelling*

Sources: *(1) KPMG EU Flows Model and analysis of data sources provided by manufacturers; Switzerland was included in the study for the first time in 2014 (2) KPMG analysis of UNWTO Factbook 2012-2015 (3) KPMG analysis of EC Excise Duty tables, January 2014-2017 (Part III – Manufactured Tobacco) and data sources provided by manufacturers*

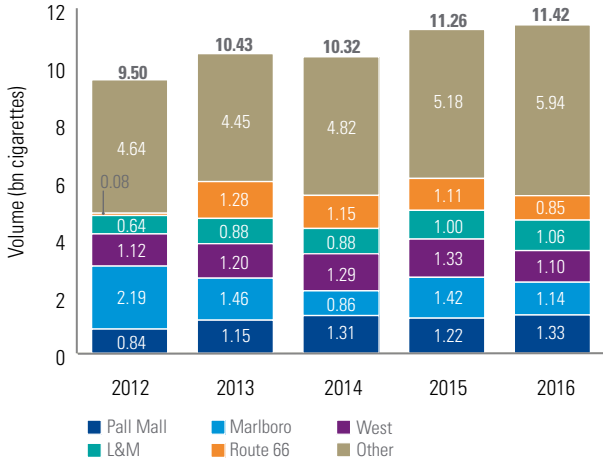
ND(L) and C&C flows

- The Czech Republic and Poland remained the biggest source countries for ND(L) flows, together contributing over 74% to the total ND(L) volumes in 2016. This is reflective of the high volume of border crossings between Germany and the two countries
  - Over 35 million people from Germany travelled to the Czech and Poland in 2016, representing an increase of approximately 6% over 2015[1]
- C&C declined by 16% driven primarily by reduced flows of cigarettes from Poland, Czech Republic and Belarus
  - C&C volumes from Belarus, particularly of Belarusian brand FEST, have almost halved in the last two years which may be explained by the tightened security on the Eastern EU border

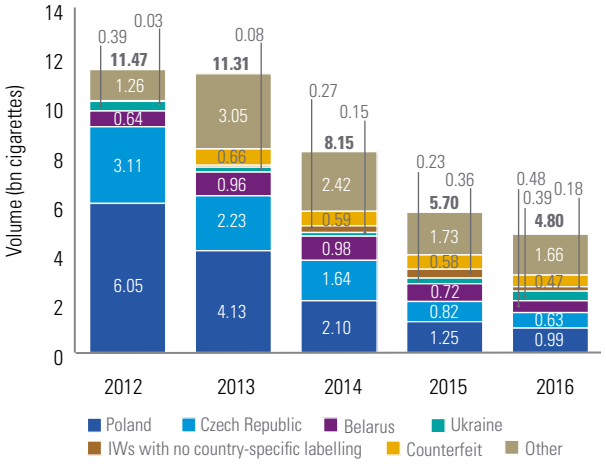
ND(L) by country of origin – 2012-2016[1](a)(b)



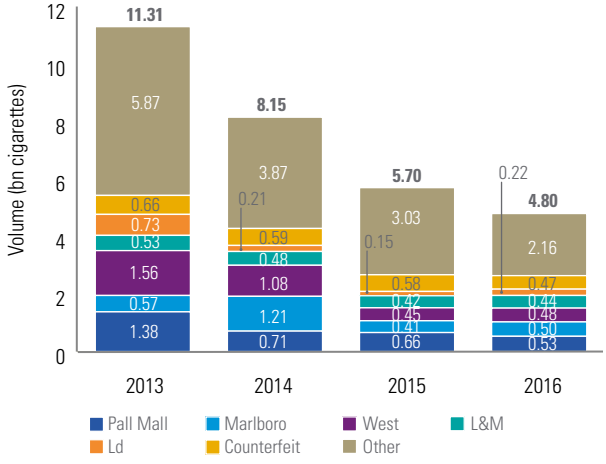
ND(L) by brand – 2012-2016[1](a)(b)



C&C by country of origin – 2012-2016[1](a)



C&C by brand – 2013-2016[1](a)



Notes: *(a) KPMG calculates the split between C&C and ND(L) by calculating the ND(L) volumes and subtracting from the total inflows (b) In years 2014-2016 the ND(L) analysis was undertaken using border crossings and regional sales data provided by manufacturers; detail surrounding methodology changes is provided in the appendix*

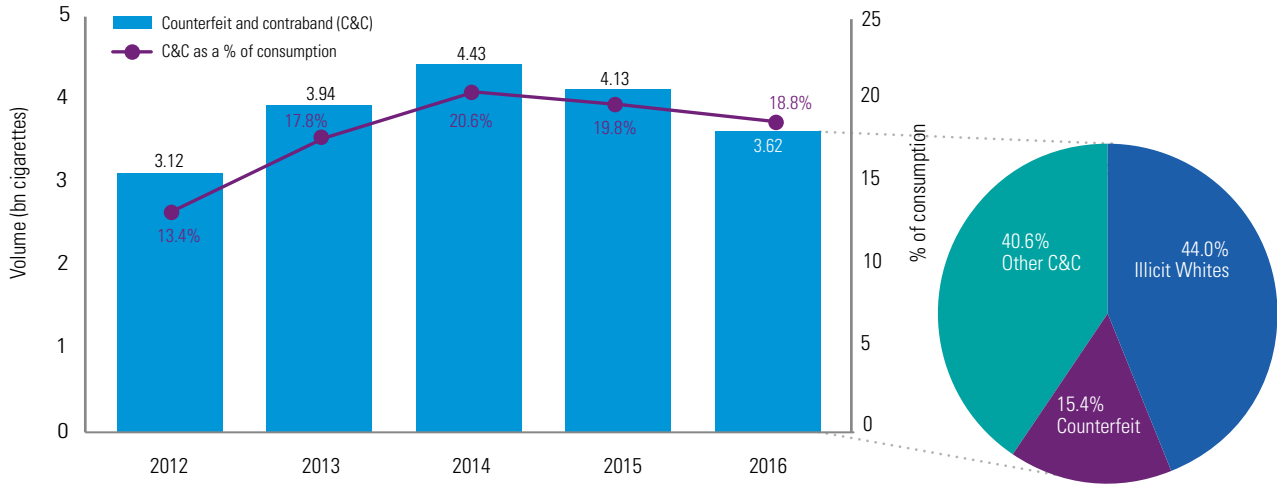
Sources: *(1) KPMG analysis of UNWTO Factbook 2012-2015, EU flows model and data sources provided by manufacturers*

Greece

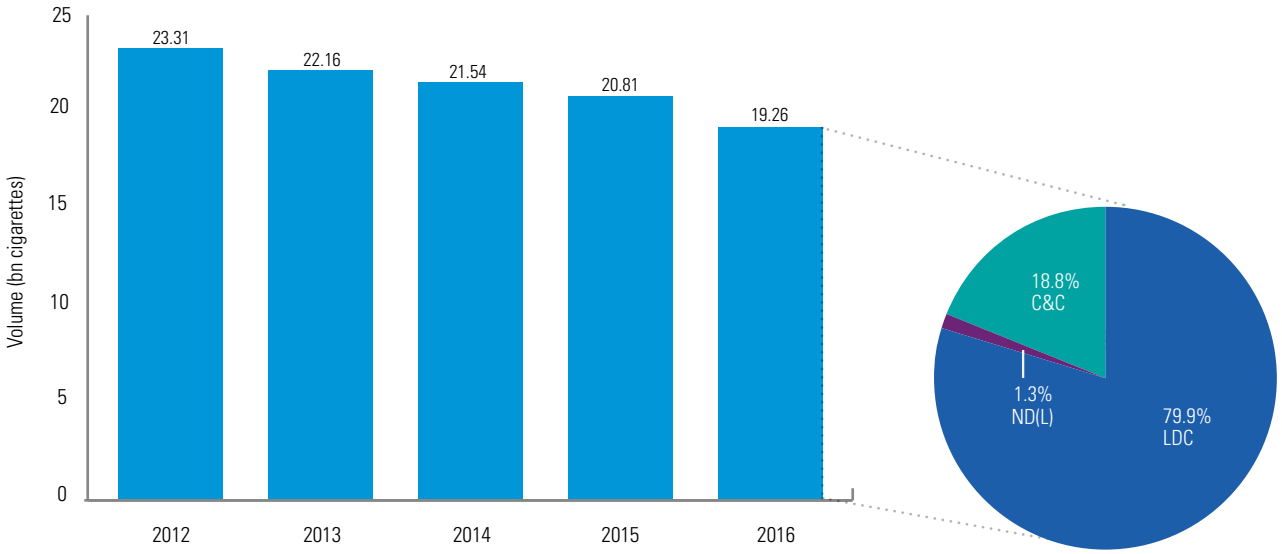
Overview

- Greece continued to have the 2nd highest rate of C&C consumption in the EU, at 19% of total consumption
- The volume of C&C fell by 12% against a backdrop of sustained law enforcement activity
- Ongoing economic and political uncertainty, including capital controls since June 2015, may have had an impact on the level of legal domestic cigarette consumption
- Illicit Whites brand flows remained the main source of C&C, accounting for 44% of the total illicit volume

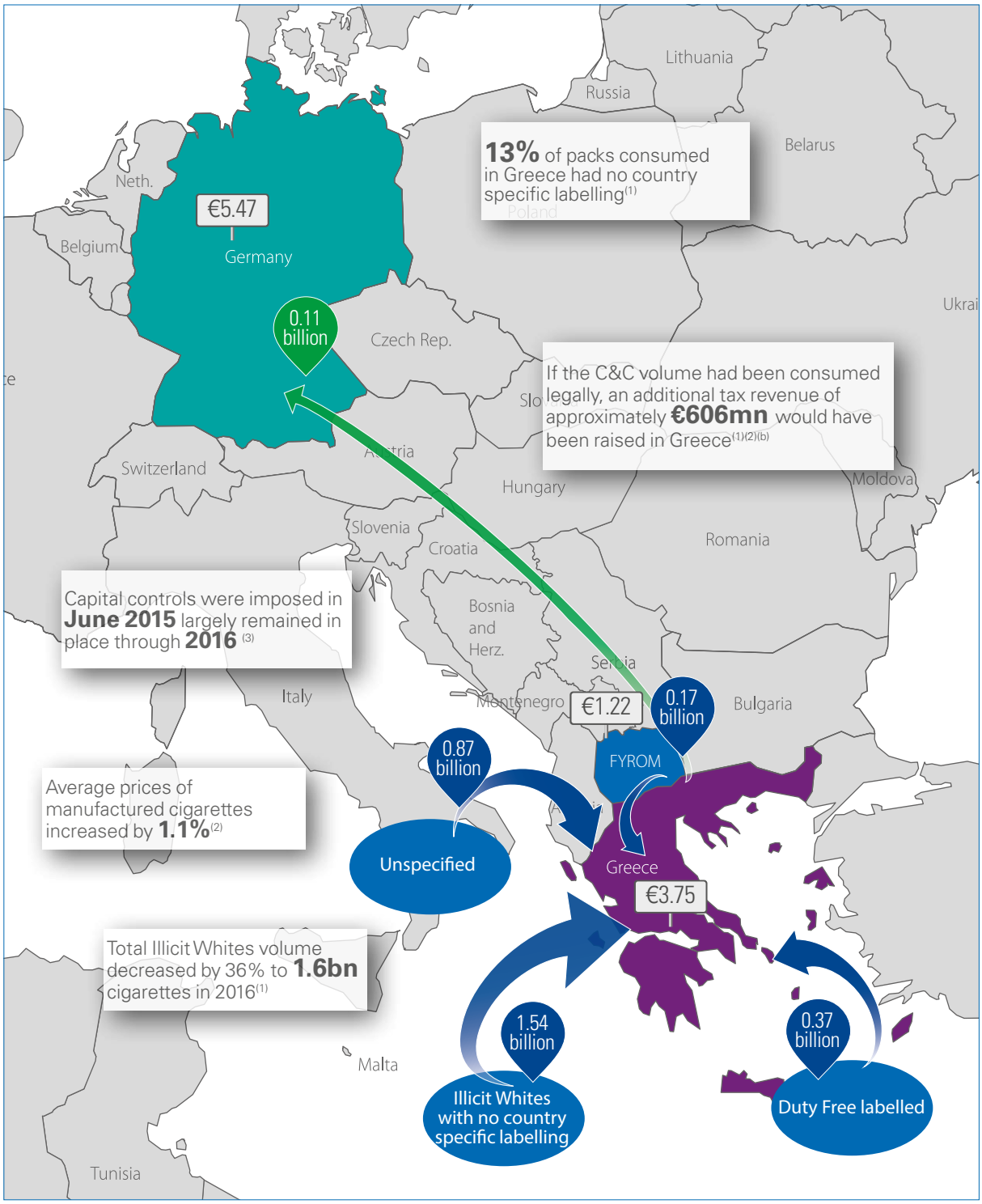
Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2012-2016



Manufactured cigarette consumption – 2012-2016



Key inflows and outflows



Note: *(a) Map shows major flows. Countries which are both source and destination countries are coded according to the larger flow (b) Analysis of tax revenues lost due to illicit bulk tobacco has not been included in this report*

Source: *(1) KPMG EU Flows Model (2) EC Excise Duty tables (Part III – Manufactured Tobacco) and analysis of data sources provided by manufacturers (3) Greece eases back on capital controls in bid to reverse currency flight, The Guardian, August 2016*

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2012-2016[1][2][3][a]

TOTAL GREECE CONSUMPTION						
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**	**2014-15 %**
Legal domestic sales (LDS)	20.45	18.46	17.27	16.79	15.77	(6%)
Outflows	-0.50	-0.47	-0.33	-0.34	-0.38	12%
Legal domestic consumption (LDC)	19.94	17.99	16.93	16.45	15.39	(6%)
Non-domestic legal (ND(L))	0.25	0.23	0.18	0.24	0.25	5%
Counterfeit and contraband (C&C)	3.12	3.94	4.43	4.13	3.62	(12%)
Total non-domestic	3.37	4.17	4.61	4.36	3.87	(11%)
Total consumption	**23.31**	**22.16**	**21.54**	**20.81**	**19.26**	**(7%)**

- Legal domestic sales continued their long term decline, falling 6% against a backdrop of sustained political and economic uncertainty, with ongoing capital controls impacting consumer spending
- Three quarters of flows into Greece came from cigarettes with no country-specific labelling or counterfeit cigarettes
- Greece also had high volumes of cigarettes with no country specific labelling where there was legal distribution in the country, including the brands Cooper, GR and Karelia
- Outflows from Greece were mainly driven by tourists, who represented 87% of trips from Greece to EU countries in 2016

Total inflows by country of origin – 2012-2016[1][b][c]

ND INFLOWS TO GREECE					
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**
IWs with no country-specific labelling	2.50	2.72	2.65	2.38	1.54
Unspecified	0.05	0.64	1.00	0.74	0.87
Counterfeit		0.02	0.03	0.41	0.56
Duty Free Labelled	0.33	0.53	0.59	0.42	0.37
FYROM	0.02	0.02	0.05	0.07	0.17
Other	0.47	0.71	0.29	0.35	0.35
Total inflows	**3.37**	**4.65**	**4.61**	**4.36**	**3.87**

Total outflows by destination country – 2012-2016[1]

OUTFLOWS FROM GREECE					
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**
Germany	0.18	0.15	0.11	0.12	0.11
France	0.07	0.12	0.02	0.03	0.09
UK	0.16	0.11	0.08	0.05	0.08
Austria	0.01	0.00	0.01	0.02	0.02
Italy	0.02	0.02	0.03	0.02	0.01
Other	0.07	0.06	0.10	0.11	0.08
Total Outflows	**0.50**	**0.47**	**0.33**	**0.34**	**0.38**

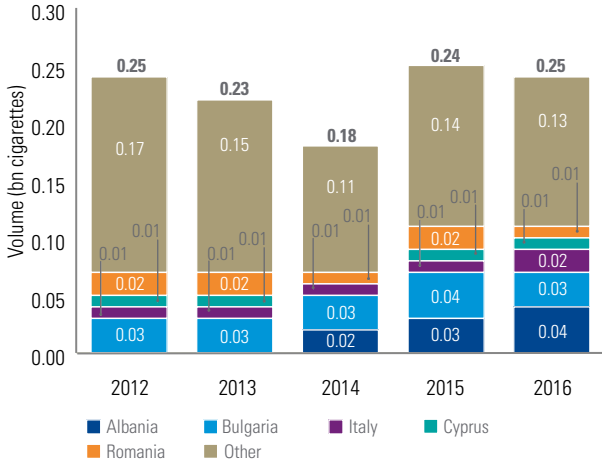
Note: *(a) In years 2012-2016 non-domestic incidence is stated on sticks basis; prior to this a packs basis was used (b) Illicit Whites with no country specific labelling comprise Illicit Whites labelled as "Duty free" and "Unspecified". Data from previous years reflects the same definition; please refer to the appendix for full methodology (c) The Duty Free and Unspecified inflows exclude Illicit Whites which have Duty Free labelling and unspecified labelling*

Sources: *(1) KPMG EU Flows Model and analysis of data sources provided by manufacturers (2) KPMG analysis of UNWTO Factbook 2012-2015*

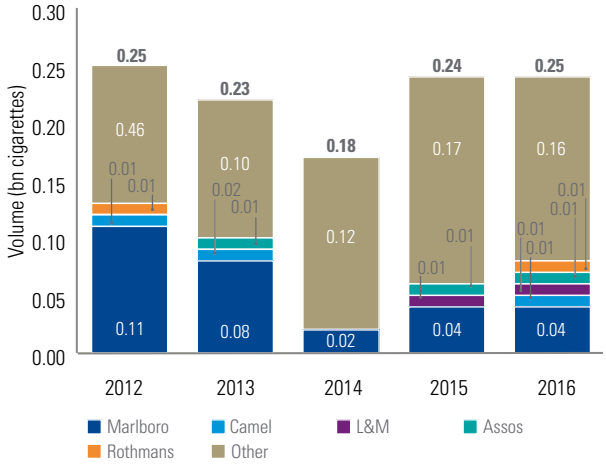
ND(L) and C&C flows

- While ND(L) remained stable in 2016, C&C declined by 12% amidst sustained law enforcement activity
- Cooperation between OLAF and the Greek authorities led to seizures of over 100 million cigarettes in Greece within the first half of 2016[3][4]
- Illicit White brand flows with no country specific labelling decreased by 0.84 billion cigarettes
- The main brands were Raquel, Royal and Gold Mount brands
- 67% of Gold Mount identified were variants trademark-owned by Kaanee American International Tobacco, a company known to operate from UAE based Free Trade Zones[1][2]
- Counterfeit product increased by 0.15 billion, consisting mainly of Assos and Marlboro with duty free labelling

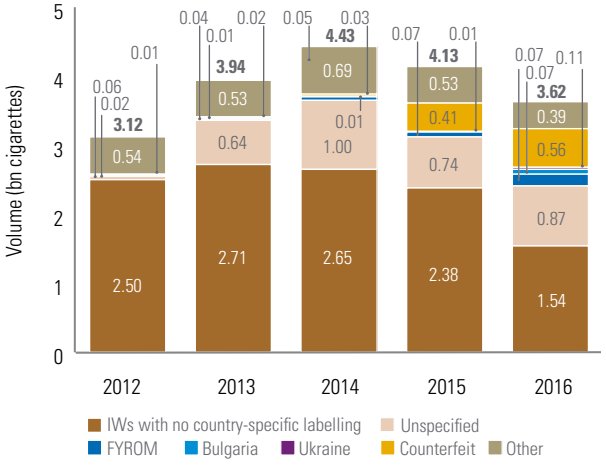
ND(L) by country of origin – 2012-2016[1][a][b]



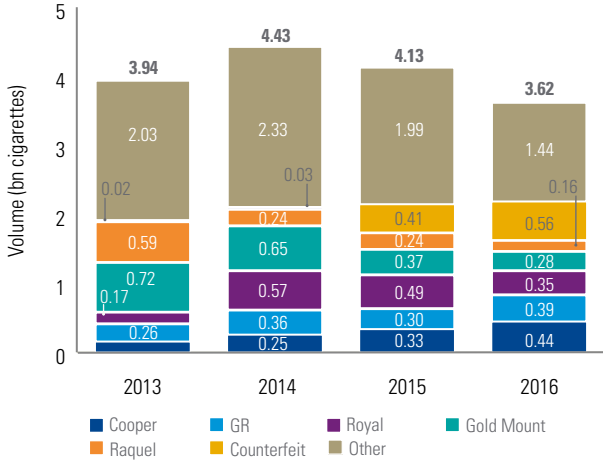
ND(L) by brand – 2012-2016[1][a][b]



C&C by country of origin – 2012-2016[1][a]



C&C by brand – 2012-2016[1][a]



Notes: *(a) KPMG calculates the split between C&C and ND(L) by calculating the ND(L) volumes and subtracting from the total inflows (b) In 2014-2016, the ND(L) analysis was undertaken using border crossings and regional sales data provided by manufacturers; detail surrounding methodology changes is provided in the appendix (c) Additional information about the process for identifying Illicit Whites is provided in the appendix*

Sources: *(1) KPMG analysis of UNWTO Factbook 2012-2015, EU flows model and data sources provided by manufacturers (2) KPMG analysis of manufacturers operating in Free Trade Zones (3) Smugglers' New Year's plans blow up in smoke: OLAF helps seize over 75 million cigarettes at the turn of the year, OLAF, Feb 2016 (4) All hands on deck – OLAF helps national authorities seize 100 million cigarettes, OLAF, June 2016*

RUSI Analysis: Organised Crime and the Illicit Cigarette Trade in Greece

The following analysis is based on RUSI fieldwork completed in 2015-16

Groups

Few disagree that OCGs are behind the vast majority of C&C smuggling in Greece. Yet specific information on these groups is limited. This results, in part, from **strong pressure on enforcement resources** and a resultant focus on short-term operational priorities over long-term strategic approaches. Seizures are often the end goal, with few follow-on investigations taking place.

Despite a limited intelligence picture, a number of trends can be identified. In many ways, the shifting nature of the OCGs involved reflects patterns witnessed elsewhere in Europe. **Authorities have noted a move from hierarchical to networked, 'enterprise' OCG models**, where membership fluctuates with the task at hand. As elsewhere, OCGs in Greece are known to move between products as profits dictate, though a clear shift from high- to lower-risk commodities is not yet apparent.

Other OCGs specialise in illicit cigarettes. Many smugglers give themselves a nickname – tsigarades – suggesting a sense of status attached to the trade. Whether broad or more specialised, however, a range of nationalities are typically involved. Division of labour by nationality is also apparent; foreigners are mainly involved in the import and onward transport of C&C while Greeks run domestic distribution.

Routes

On land, **illicit cigarettes enter Greece via 'ant smuggling'** across the borders with Albania, Turkey and Bulgaria. At sea, similar 'little and often' smuggling takes place: Greece has almost 14,000 km of coastline, 2,000 islands and more than 500 vessels around the country at any one time, according to the Hellenic Coast Guard. These characteristics make smuggling by boat particularly challenging to monitor; sea routes change quickly as OCGs identify stretches of coast unlikely to be policed.

However, **the majority of C&C smuggling appears to occur via Piraeus and Thessaloniki ports**. These are known to receive shipments of illicit whites from China and the UAE – often via Egypt, Cyprus or Lebanon, often **having transited free trade zones (FTZs)**. Between March and May 2014, five containers carrying illicit cigarettes were seized in Piraeus, having transited (between them) the FTZs of Jebel Ali in the UAE, Pasir Gudang and Port Klang in Malaysia. The World Customs Organization's 2014 Illicit Trade Report notes that over 61% of total cigarette brands seized in Greece that year originated from FTZs.[1]

Meanwhile, a 2015 report by the Joint Research Centre on Transnational Crime suggests that as much as **70–75% of illicit cigarettes arriving in Greece are intended for other countries**.[2] On arrival via sea or land, Greece's numerous smaller ports allow for their easy movement on to the rest of Europe. The country's porous land borders and Schengen Area membership further facilitate the re-export of C&C on to the continent's more lucrative markets.

Sources: *(1) World Customs Organization, 'Illicit Trade Report 2014', November 2015. (2) Transcrime, 'European Outlook on the Illicit Trade in Tobacco Products' (Trento: Transcrime, 2015).*

RUSI Analysis: Organised Crime and the Illicit Cigarette Trade in Greece (cont.)

Methods

Where using sea routes, OCGs employ particular techniques to evade detection. A **growing trend has seen large vessels beyond territorial waters feeding smaller boats**, which move C&C into Greece in lesser volumes.

This technique takes advantage of the Hellenic Coast Guard's limited area of operations: due to territorial disputes with Turkey, Greece's territorial waters extend 6 nautical miles, rather than the 12 nautical mile standard, with Greek coast guard action limited to these waters. **An emerging OCG tactic is thus to combine small- and large-scale smuggling**, as numerous, high-speed boats transport C&C from larger vessels beyond Greek waters to small ports or isolated beaches, where lorries await for onward transport.

Those cigarettes that remain in Greece are supplied to street sellers, kiosks and small shops, and sold openly in city centres. A 2016 Eurobarometer survey found that **76% of respondents in Greece had been offered illicit cigarettes in the street**, compared to a 60% EU average[3]. Increasingly, illicit cigarettes are also sent directly to customers' homes using Internet-based postal and courier services.

There is disagreement over the extent of illicit cigarette production in Greece. Recently there have been police operations to close down **illegal production facilities** in Athens and Thessaloniki, which were found to be supplying counterfeit products to the Greek market. However, some argue that these were **isolated incidents** and there is limited intelligence suggesting that further factories exist.

Outlook

Greece has among the highest seizure rates for illicit tobacco in Europe. Yet **progress beyond seizures is hampered by financial austerity and the prioritisation of organised immigration crime** since 2015. This depletion of resources has impacted authorities' intelligence coverage. The response is further limited by inadequate equipment: there are no fixed x-ray scanners in any Greek port – not even in Piraeus, the third largest in Europe.

Corruption within a range of public and private organisations is also recognised as a key challenge.[4] In 2014, a Eurobarometer report from the European Commission found that 99% of Greek respondents considered corruption to be a widespread problem in their country, and 63% believed it affected their daily lives.[5] However, the introduction of the National Anti-Corruption Plan and establishment of the General Secretariat Against Corruption have made efforts to tackle the issue more transparent.

As in other EU states, **social acceptability persists as an enabler**. Consumers are quick to excuse complicity, blaming reductions in personal disposable income since the 2008 economic crisis. An emerging consumer taste for illicit loose tobacco plays into this: reports suggest substantial growth in Greece's illicit tobacco market, though clear data are lacking and greater research is required.

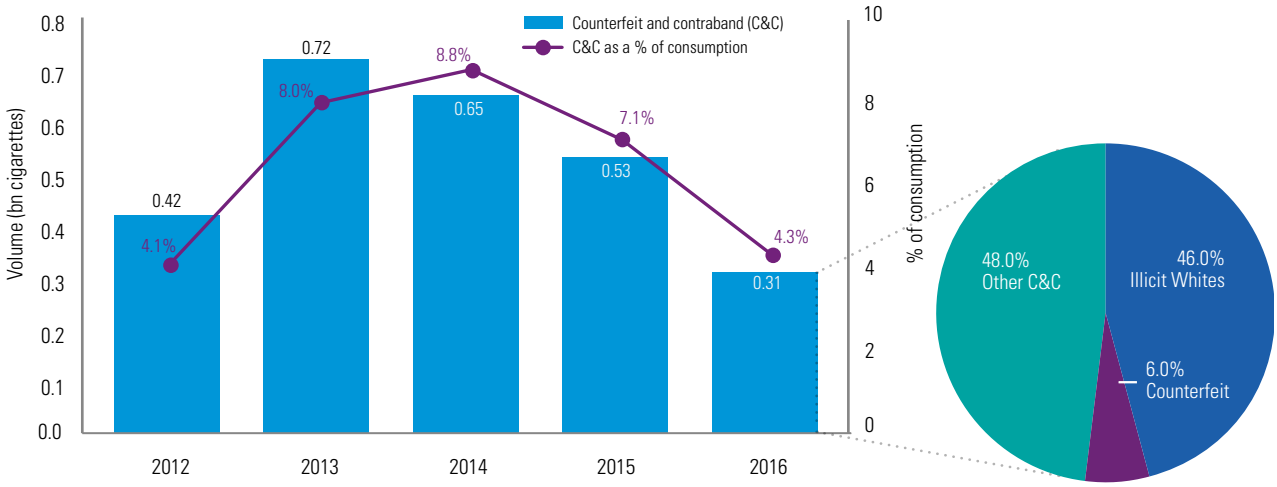
Sources: *(3) European Commission, 'Public Perception of Illicit Tobacco Trade', Special Eurobarometer 443, July 2016. (4) Jeffray, 'On Tap Europe: Organised Crime and Illicit Trade in Greece', p. 34. (5) European Commission, 'Corruption', Special Eurobarometer 397, February 2014.*

Hungary

Overview

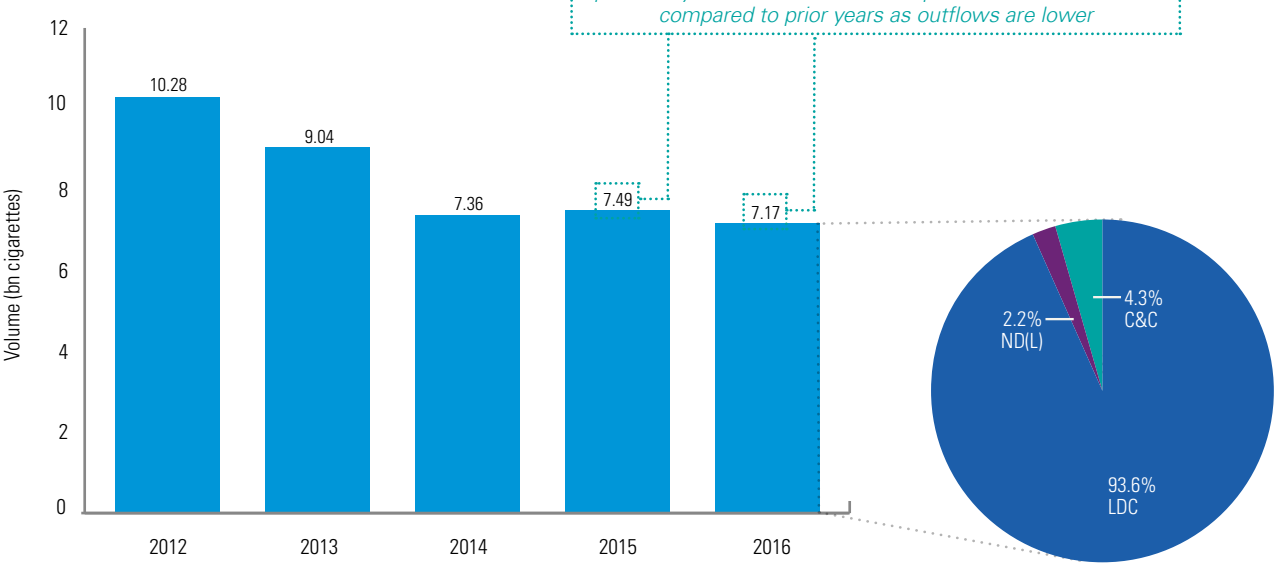
- C&C fell by 42% in 2016, dropping to a five-year low of 4.3% of total consumption against a backdrop of additional law enforcement on the Eastern EU border
- Flows from Ukraine increased by 67%, making the country the largest single source of C&C in 2016
- Illicit white brand flows declined by 59%, accounting for the majority of C&C decline

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2012-2016

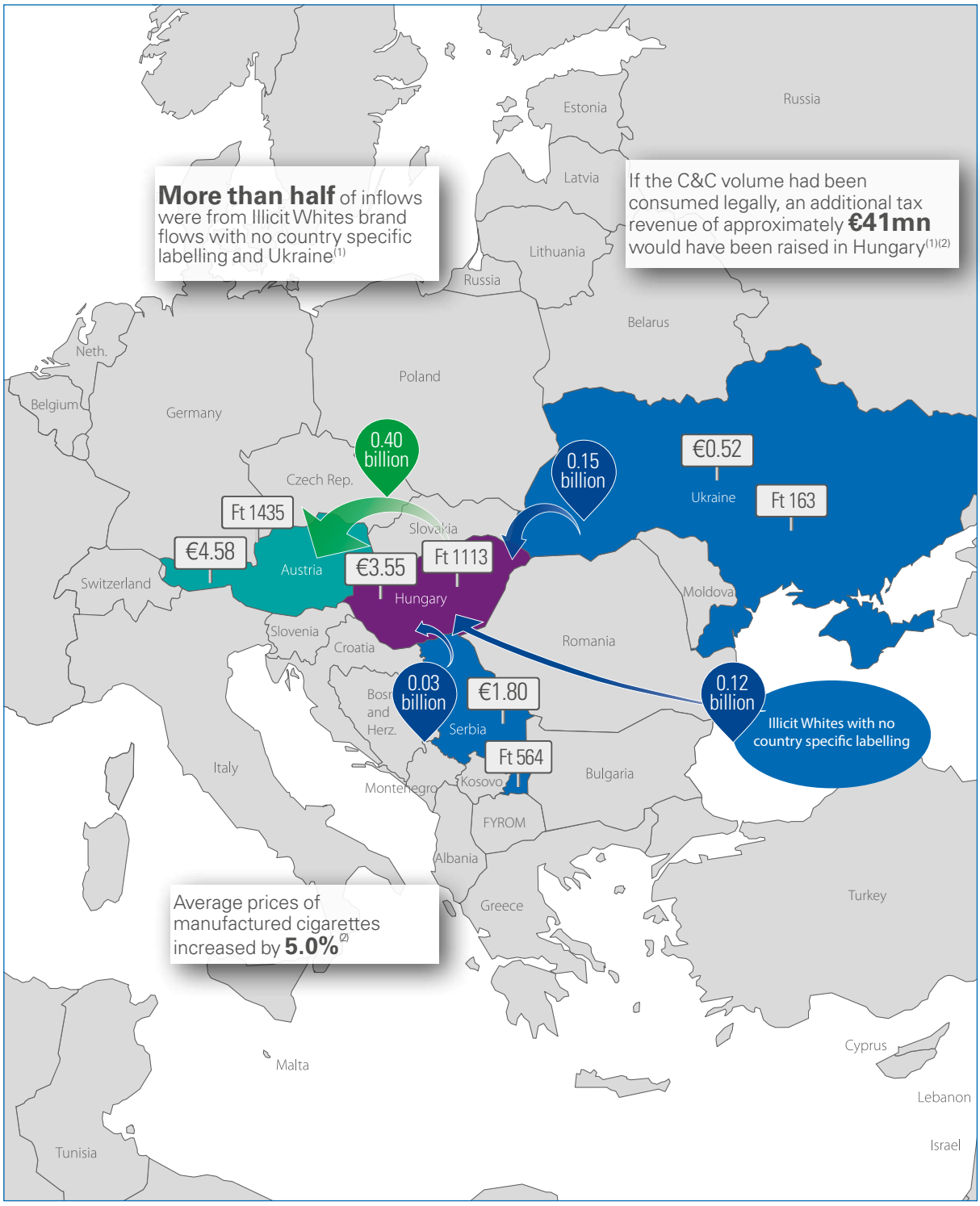


Manufactured cigarette consumption – 2012-2016

The new pack sampling plan in Austria from 2015 has resulted in lower outflows from Hungary to Austria compared to previous years – therefore consumption volumes cannot be compared to prior years as outflows are lower



Key inflows and outflows



Note: *(a) Map shows major flows. Countries which are both source and destination countries are coded according to the larger flow*

Sources: *(1) KPMG EU Flows Model, (2) EC Excise Duty tables (Part III – Manufactured Tobacco) and analysis of data sources provided by manufacturers*

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2012-2016[1][2][a]

TOTAL HUNGARY CONSUMPTION						
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**	**2015-16 %**
Legal domestic sales (LDS)	11.21	9.36	7.47	7.34	7.44	1%
Outflows	-1.41	-1.13	-0.87	-0.56	-0.73	31%
Legal domestic consumption (LDC)	9.80	8.24	6.60	6.78	6.71	(1%)
Non-domestic legal (ND(L))	0.06	0.08	0.11	0.17	0.15	(11%)
Counterfeit and contraband (C&C)	0.42	0.72	0.65	0.53	0.31	(42%)
Total non-domestic	0.48	0.80	0.76	0.71	0.46	(34%)
Total consumption	**10.28**	**9.04**	**7.36**	**7.49**	**7.17**	**(4%)**

- Legal domestic sales remained stable against a back drop of economic growth, lower unemployment and rising personal disposable income[4][5]
- Outflows from Hungary increased by 31%, driven by increased outflows to Austria and the UK
  - Outflows to the UK may have been influenced by the number of Hungarian nationals living in the UK, estimated at 100,000 in 2016[6]
  - Austrian outflows were supported as consumers on the border had the opportunity to purchase cigarettes that were €1 cheaper
- Inflows continued to decline, reducing by 34%, possibly related to tighter border controls in 2016[7]

The new pack sampling plan in Austria from 2015 has resulted in lower outflows from Hungary to Austria compared to previous years – therefore it can not be compared to prior years

Total inflows by country of origin – 2012-2016[1][b][c]

ND INFLOWS TO HUNGARY					
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**
Ukraine	0.13	0.07	0.04	0.09	0.15
IWs with no country-specific labelling	0.01	0.15	0.23	0.22	0.12
Serbia	0.14	0.06	0.03	0.04	0.03
Duty Free Labelled	0.02	0.02	0.03	0.03	0.02
Counterfeit	0.03	0.03	0.04	0.04	0.02
Other	0.15	0.47	0.40	0.29	0.13
Total Inflows	**0.48**	**0.80**	**0.76**	**0.70**	**0.46**

Total outflows by destination country – 2012-2016[1]

OUTFLOWS FROM HUNGARY					
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**
Austria	0.86	0.71	0.56	0.25	0.40
UK	0.12	0.03	0.08	0.08	0.15
Germany	0.20	0.22	0.11	0.12	0.09
Ireland	0.06	0.05	0.02	0.01	0.02
Netherlands	0.04	0.03	0.02	0.02	0.02
Other	0.12	0.09	0.08	0.08	0.06
Total Outflows	**1.41**	**1.13**	**0.87**	**0.56**	**0.73**

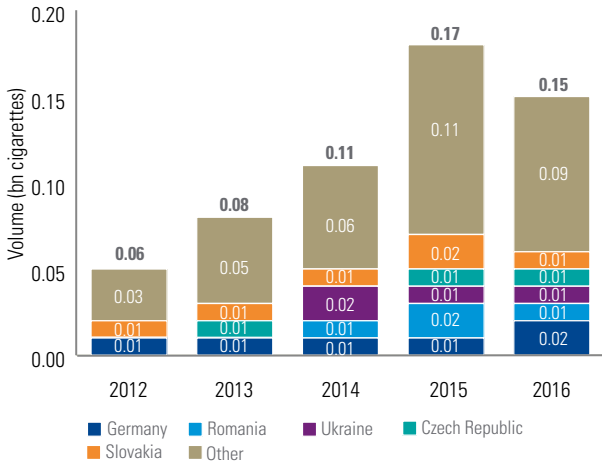
Notes: *(a) In years 2012-2016 non-domestic incidence is stated on sticks basis; prior to this a packs basis was used (b) Illicit Whites with no country specific labelling comprise Illicit Whites labelled as "Duty free" and "Unspecified". Data from previous years reflects the same definition; please refer to the appendix for full methodology (c) The Duty Free and Unspecified inflows exclude Illicit Whites which have Duty Free labelling and unspecified labelling*

Sources: *(1) KPMG EU Flows Model and analysis of data sources provided by manufacturers (2) KPMG analysis of UNWTO Factbook 2012-2015 (3) KPMG analysis of EC Excise Duty tables, January 2017 (Part III – Manufactured Tobacco) and data sources provided by manufacturers (4) OECD Data, Country profile of Hungary, accessed May, 2017 (5) Economic Intelligence Unit, Hungary Fact Sheet, April 24, 2017 (6) Daily News Hungary: The Number Of Hungarians Living In London Increased To 100,000, April, 2016 (7) Balkan Insights: Hungarian Border Closure Hits Serbian Refugee Efforts, July, 2016*

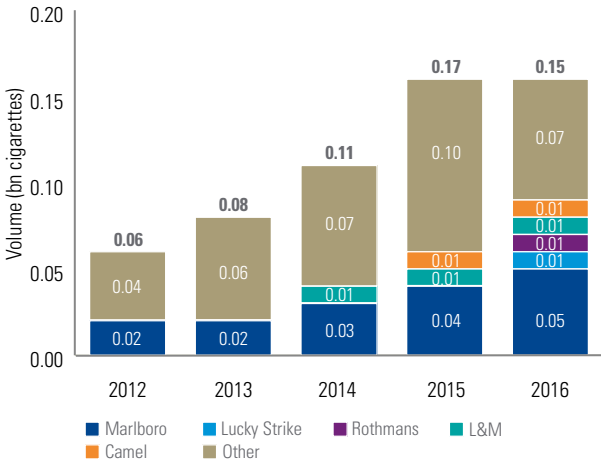
ND(L) and C&C flows

- ND(L) flows were reflective of travel to neighbouring countries
- C&C decreased by 0.22 billion cigarettes in 2016, potentially linked to the border controls introduced
- Illicit Whites brand flows decreased by 44%, driven by Compliment and Lifa, which declined by 37% and 16% respectively
- The volume of Belarusian product also fell, as consumption of the brands NZ and Fest reduced by 0.14 billion
- A 0.02 billion decrease in Ukrainian labeled counterfeit was offset by a 0.05 billion increase in Ukrainian contraband product

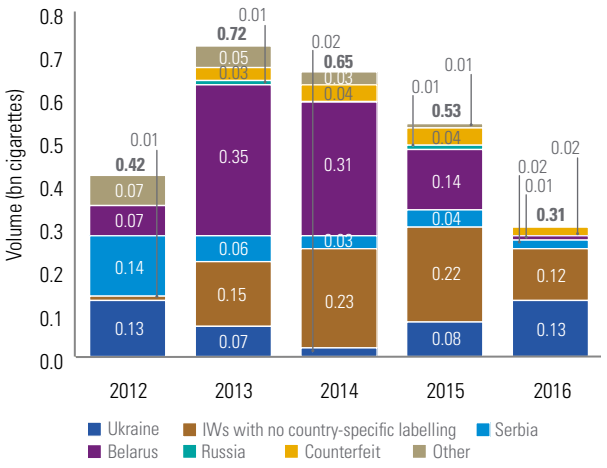
ND(L) by country of origin – 2012-2016[(1)(a)(b)]



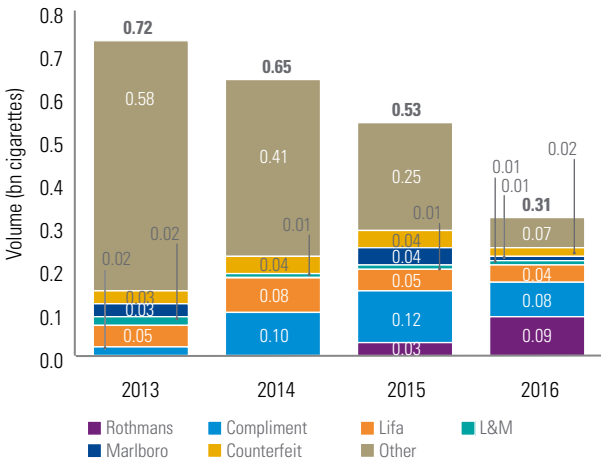
ND(L) by brand – 2012-2016[(1)(a)(b)]



C&C by country of origin – 2012-2016[(1)(a)(c)]



C&C by brand – 2013-2016[(1)(a)]



Notes: *(a) KPMG calculates the split between C&C and ND(L) by calculating the ND(L) volumes and subtracting from the total inflows (b) In years 2014-2016 the ND(L) analysis was undertaken using border crossings and regional sales data provided by manufacturers; detail surrounding methodology changes is provided in the appendix*

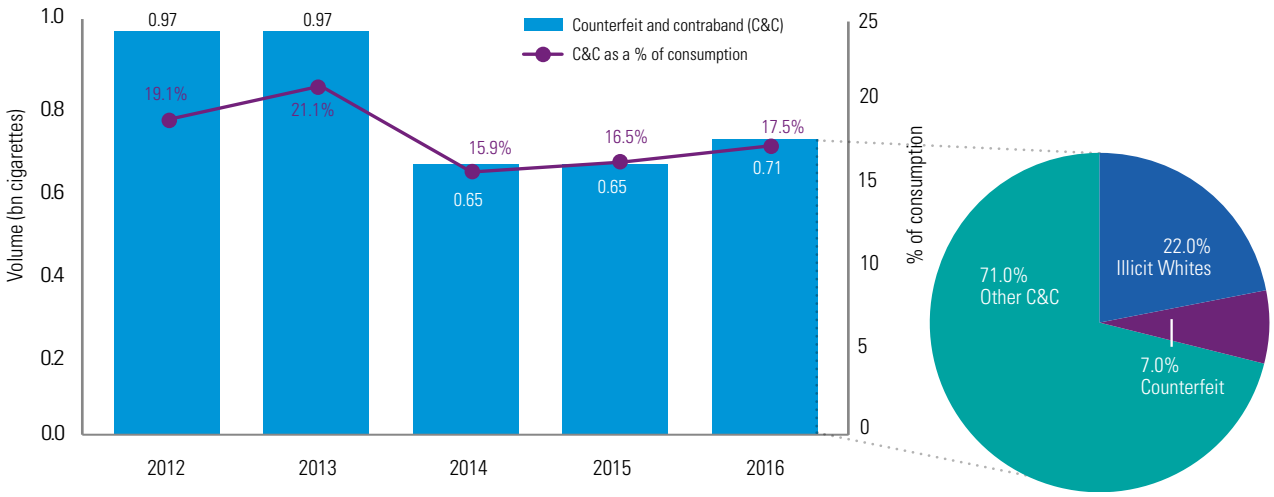
Sources: *(1) KPMG analysis of UNWTO Factbook 2012-2015, EU flows model and data sources provided by manufacturers*

Ireland

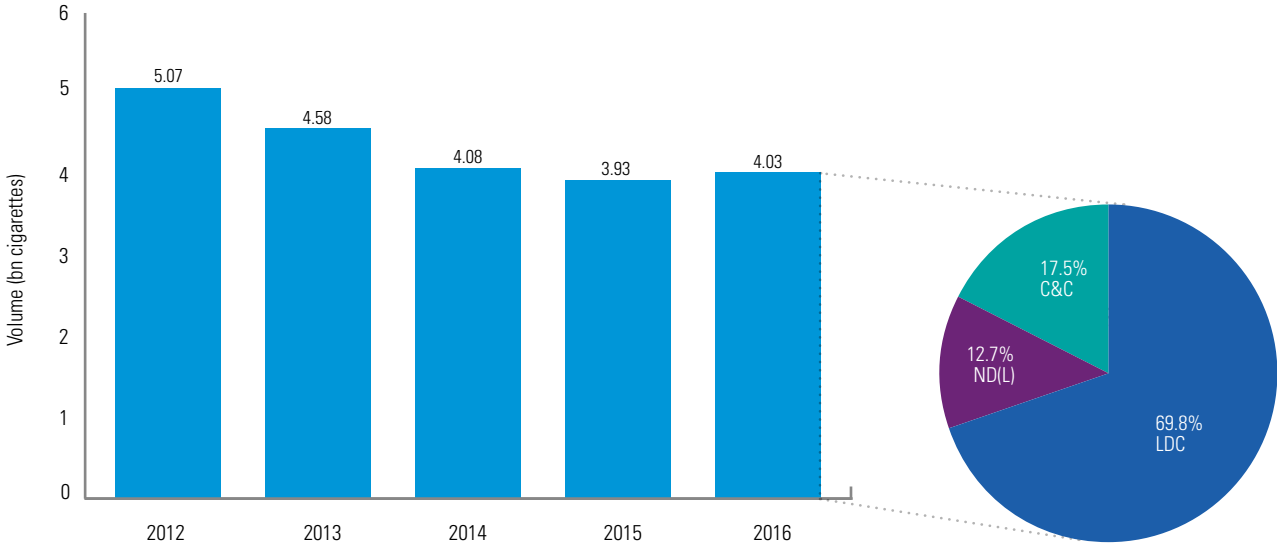
Overview

- Ireland had the third highest rate of C&C consumption in the EU at 17.5%
- C&C volumes increased by 9% in 2016, mainly as a result of an increase of counterfeit identified
- Total consumption increased following a rise in non-domestic legal consumption, mainly from countries which are popular tourist destinations (e.g. Spain)

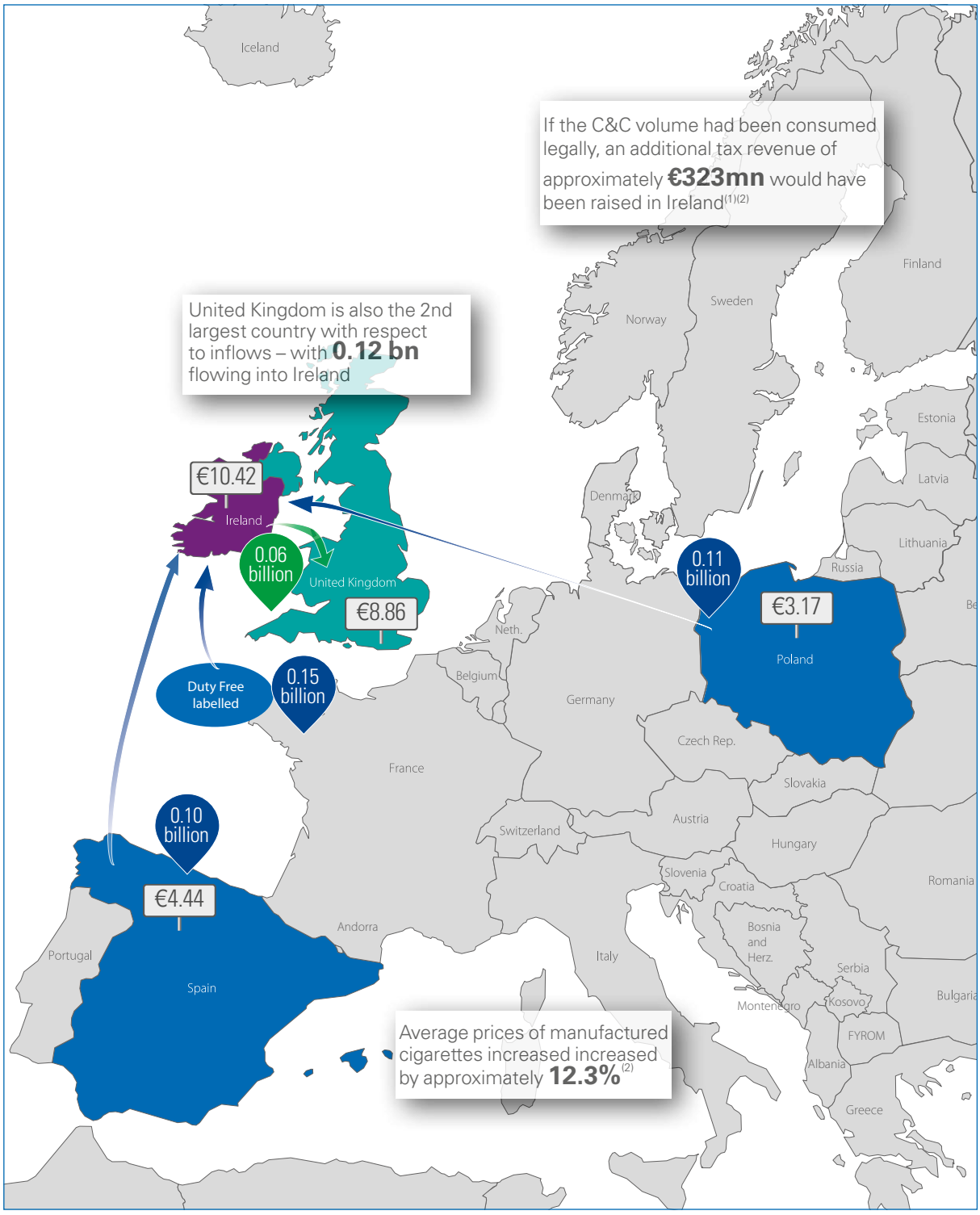
Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2012-2016



Manufactured cigarette consumption – 2012-2016



Key inflows and outflows



Notes: *(a) Map shows major flows. Countries which are both source and destination are coded according to the larger flow*

Sources: *(1) KPMG EU Flows Model, (2) EC Excise Duty tables, January 2017 (Part III – Manufactured Tobacco) and analysis of data sources provided by manufacturers*

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2012-2016[1][2][a][d]

TOTAL IRELAND CONSUMPTION						
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**	**2015-16 %**
Legal domestic sales (LDS)	3.70	3.37	3.18	3.05	2.90	(5%)
Outflows	-0.07	-0.09	-0.07	-0.12	-0.09	(23%)
Legal domestic consumption (LDC)	3.63	3.28	3.11	2.93	2.81	(4%)
Non-domestic legal (ND(L))	0.47	0.33	0.33	0.35	0.51	46%
Counterfeit and contraband (C&C)	0.97	0.97	0.65	0.65	0.71	9%
Total non-domestic	1.43	1.30	0.97	1.00	1.22	22%
Total consumption	**5.07**	**4.58**	**4.08**	**3.93**	**4.03**	**2%**

- Legal domestic consumption declined, reflecting a shift in consumer demand to cheaper alternatives such as RYO tobacco, despite improving economic factors[3][4]
- UK inflows increased by 45%, as a fall in the value of the pound made UK cigarettes cheaper than domestic cigarettes during 2016
- Total outflows declined by 23%, reflecting price increases which made Ireland the second most expensive country in the study (after Norway)[5]

Total inflows by country of origin – 2012-2016[1][b][c][d]

ND INFLOWS TO IRELAND					
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**
Duty Free Labelled	0.12	0.17	0.13	0.16	0.15
UK	0.14	0.06	0.08	0.08	0.12
Poland	0.19	0.16	0.11	0.12	0.11
Spain	0.14	0.07	0.08	0.05	0.10
IWs with no country-specific labelling	0.11	0.16	0.09	0.11	0.09
Other	0.74	0.67	0.50	0.48	0.65
Total Inflows	**1.43**	**1.30**	**0.97**	**1.00**	**1.22**

Total outflows by destination country – 2012-2016[1][d]

OUTFLOWS FROM IRELAND					
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**
UK	0.05	0.06	0.05	0.10	0.06
Netherlands	0.00	0.02	0.01	0.01	0.02
Belgium	0.00	0.00	0.00	0.00	0.00
Switzerland			0.00	0.00	0.00
Germany	0.00	0.00	0.00	0.00	0.00
Other	0.01	0.01	0.01	0.00	0.00
Total Outflows	**0.07**	**0.09**	**0.07**	**0.12**	**0.09**

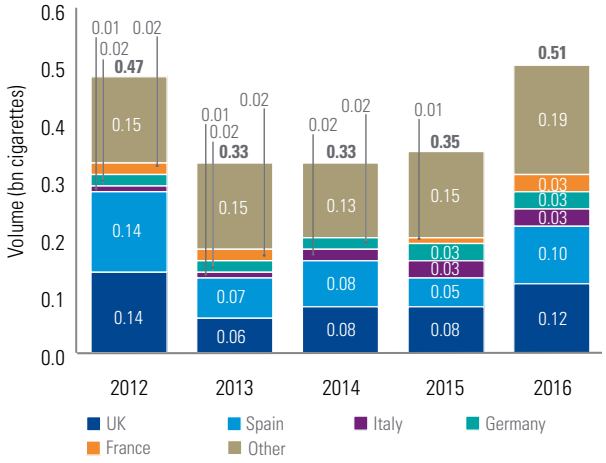
Notes: *(a) In years 2012-2016 non-domestic incidence is stated on sticks basis; prior to this a packs basis was used (b) Illicit Whites with no country specific labelling comprise Illicit Whites labelled as "Duty free" and "Unspecified". Data from previous years reflects the same definition; please refer to the appendix for full methodology (c) The Duty Free and Unspecified inflows exclude Illicit Whites which have Duty Free labelling and unspecified labelling (d) KPMG EU Flows Model methodology differs to that used by the Irish Government, causing different estimates of non-domestic consumption*

Sources: *(1) KPMG EU Flows Model and analysis of data sources provided by manufacturers (2) KPMG analysis of UNWTO Factbook 2012-2015 (3) Euromonitor: Cigarettes in Ireland, August 2016 (4) KPMG EU Flows Model methodology differs to that used by the Irish Government, causing different results to be produced (5) KPMG analysis of EC Excise Duty tables, January 2017 (Part III – Manufactured Tobacco) and data sources provided by manufacturers*

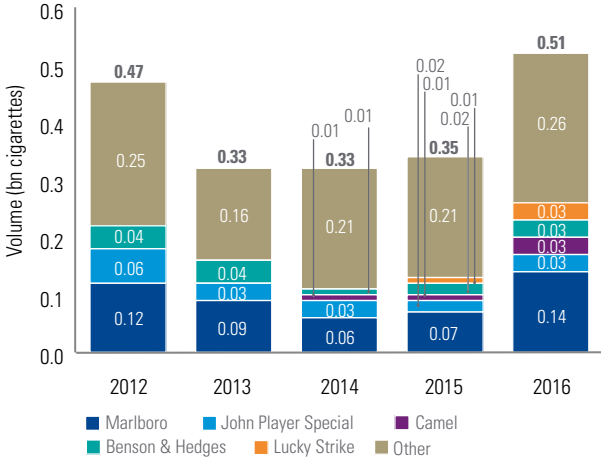
ND(L) and C&C flows

- Contraband flows from Poland and Romania increased by 22% and 6% respectively
- Whilst some of the product identified in Ireland is legal, travel volumes suggested a low proportion of ND(L) compared to the overall flow. Therefore, the majority of cigarettes from Romania and Poland were contraband[2]
- Illicit Whites brand flows with limited or no legal distribution in Ireland decreased by 17% in 2016
  - MG inflows increased by 35% as it continued to be the largest source of Illicit Whites brand flows.
  - Many of the brands identified had no country specific labelling

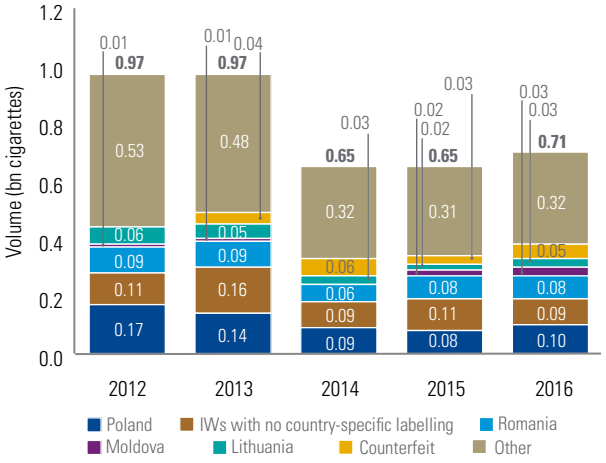
ND(L) by country of origin – 2012-2016[1][a][b]



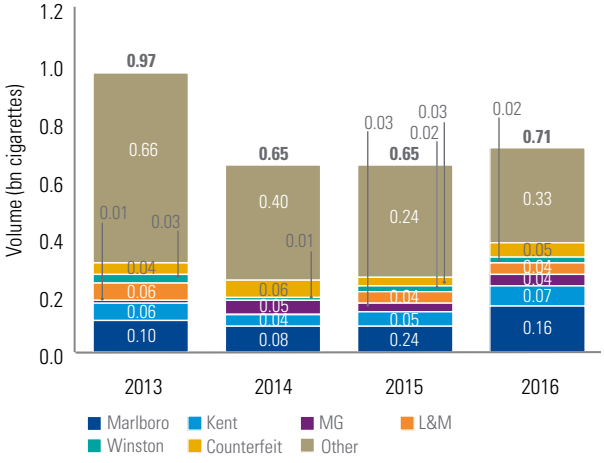
ND(L) by brand – 2012-2016[1][a][b]



C&C by country of origin – 2012-2016[1][a]



C&C by brand – 2013-2016[1][a][c]



Notes: *(a) KPMG calculates the split between C&C and ND(L) by calculating the ND(L) volumes and subtracting from the total inflows (b) In years 2014 -2016 the ND(L) analysis was undertaken using border crossings and regional sales data provided by manufacturers; detail surrounding methodology changes is provided in the appendix*

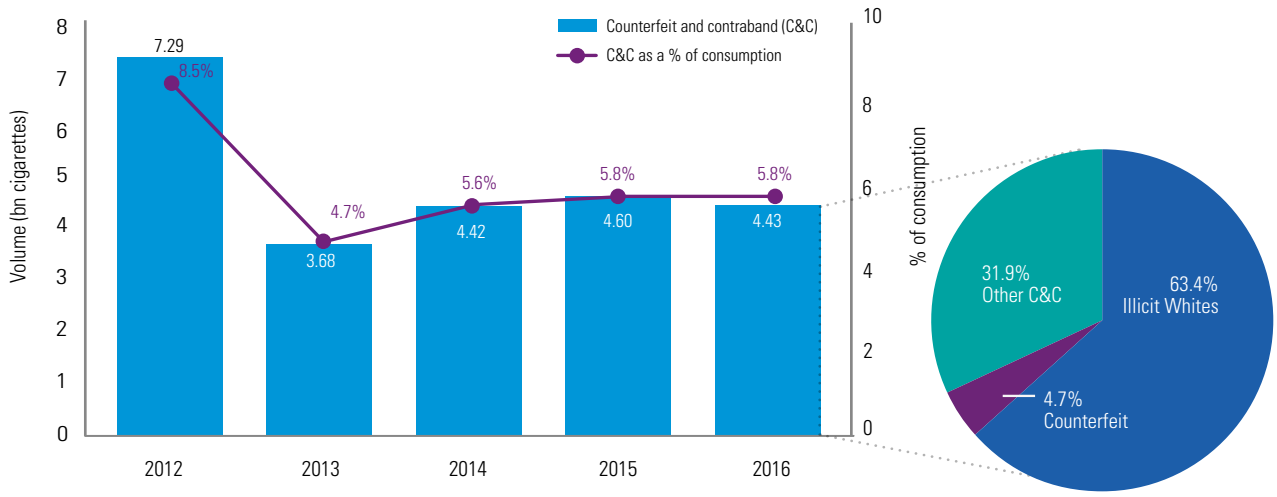
Sources: *(1) KPMG analysis of UNWTO Factbook 2012-2015, EU flows model and data sources provided by manufacturers (2) WTO data, 2016*

Italy

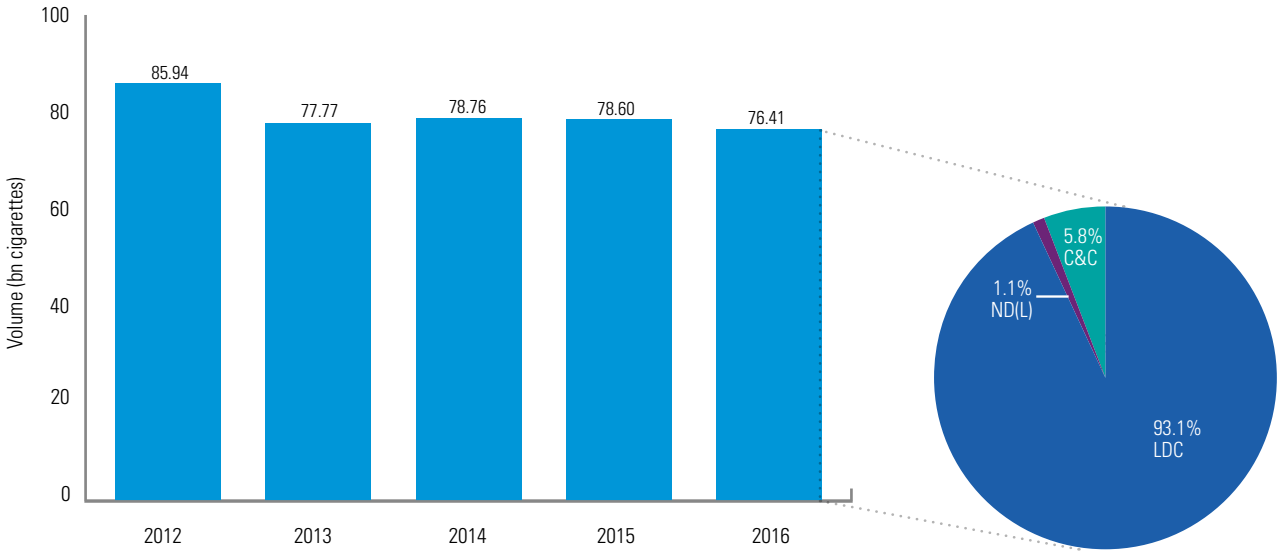
Overview

- C&C remained stable at 5.8% of total consumption, however the sources of product continued to evolve, demonstrating the flexibility of illicit trade in Italy
- Illicit Whites brand flows increased by 17% to 2.68 billion cigarettes and accounted for 63.4% of C&C, replacing Belarusian and counterfeit cigarettes
- Ukraine became the largest source country of contraband as the flow more than trebled to 0.99 billion cigarettes

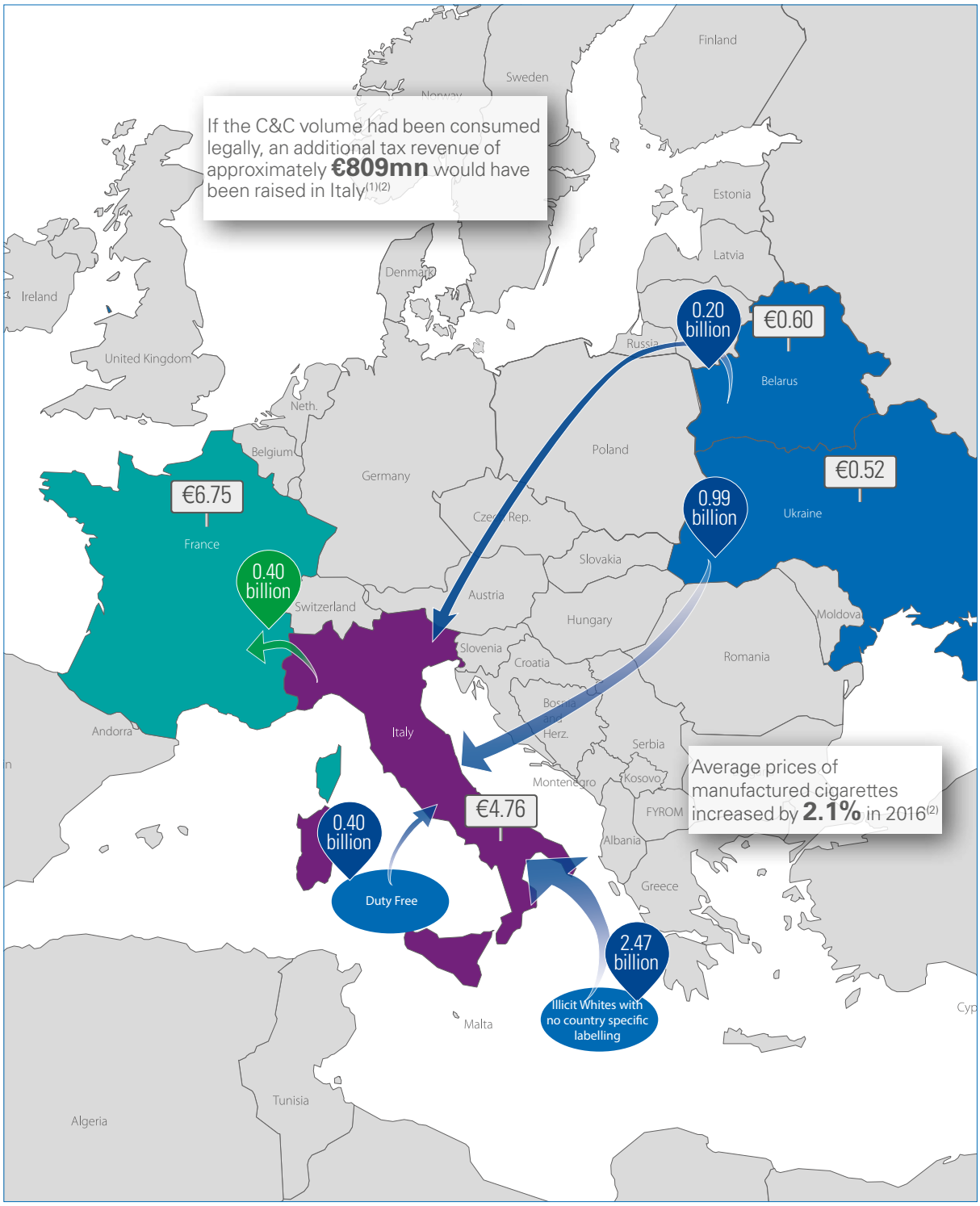
Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2012-2016



Manufactured cigarette consumption – 2012-2016



Key inflows and outflows



Note: *(a) Map shows major flows. Countries which are both source and destination countries are coded according to the larger flow*

Source: *(1) KPMG EU Flows Model and analysis of data sources provided by manufacturers (2) EC Excise Duty tables (Part III – Manufactured Tobacco)*

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2012-2016[1][2][a]

TOTAL ITALY CONSUMPTION						
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**	**2015-16 %**
Legal domestic sales (LDS)	78.74	74.04	74.44	73.82	72.05	(2%)
Outflows	-0.93	-0.78	-1.08	-0.98	-0.91	(7%)
Legal domestic consumption (LDC)	77.81	73.25	73.36	72.85	71.14	(2%)
Non-domestic legal (ND(L))	0.84	0.84	0.99	1.16	0.83	(28%)
Counterfeit and contraband (C&C)	7.29	3.68	4.42	4.60	4.43	(4%)
Total non-domestic	8.13	4.52	5.41	5.75	5.26	(9%)
Total consumption	**85.94**	**77.77**	**78.76**	**78.60**	**76.41**	**(3%)**

- Legal domestic sales declined by 2% following the implementation of EU TPD II guidelines
  - The production of 10 packs was banned in May 2016, but sales were permitted for 12 months[4]
- Illicit White brand flows with no country specific labelling and Ukrainian product increased by 78% to become the main sources of inflows
- Cigarettes from Belarus, Duty Free labelled and Counterfeit product declined by 53% as the sources of inflows changed
- Outflows from Italy declined by 7%, mainly to neighbouring countries with higher prices

Total inflows by country of origin – 2012-2016[1][b][c]

ND INFLOWS TO ITALY					
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**
IWs with no country-specific labelling	1.27	0.86	2.27	1.67	2.47
Ukraine	1.83	0.32	0.12	0.32	0.99
Duty Free Labelled	1.52	0.91	0.86	0.68	0.40
Belarus	0.76	0.50	0.19	0.59	0.20
Counterfeit		0.33	0.31	0.76	0.20
Other	2.73	1.60	1.65	1.73	1.00
Total inflows	**8.13**	**4.52**	**5.41**	**5.75**	**5.26**

Total outflows by destination country – 2012-2016[1]

OUTFLOWS FROM ITALY					
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**
France	0.31	0.39	0.47	0.33	0.40
Switzerland			0.12	0.18	0.11
Germany	0.10	0.10	0.08	0.10	0.10
Netherlands	0.17	0.13	0.13	0.13	0.07
UK	0.16	0.03	0.04	0.05	0.05
Other	0.18	0.13	0.24	0.19	0.18
Total outflows	**0.93**	**0.78**	**1.08**	**0.98**	**0.91**

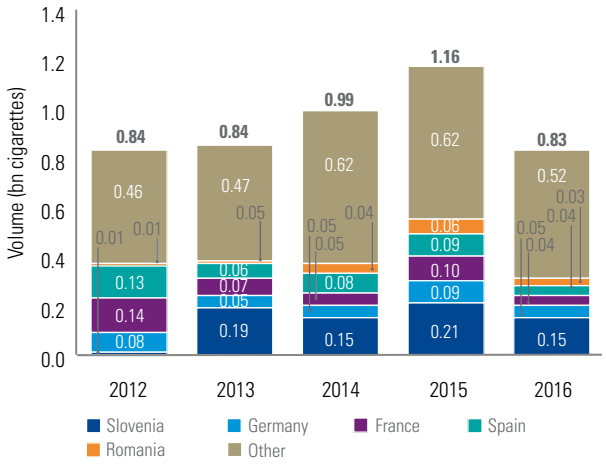
Note: *(a) In years 2012-2016 non-domestic incidence is stated on sticks basis; prior to this a packs basis was used (b) Illicit Whites with no country specific labelling comprise Illicit Whites labelled as "Duty free" and "Unspecified". Data from previous years reflects the same definition; please refer to the appendix for full methodology (c) The Duty Free and Unspecified inflows exclude Illicit Whites which have Duty Free labelling and unspecified labelling*

Sources: *(1) KPMG EU Flows Model and analysis of data sources provided by manufacturers (2) KPMG analysis of UNWTO Factbook 2012-2015 (3) KPMG analysis of EC Excise Duty tables, January 2017 (Part III – Manufactured Tobacco) and data sources provided by manufacturers (4) Sigarette, cosa cambia? Addio pacchetto da 10 e nuova batosta in arriv, Money.IT ,May 2016*

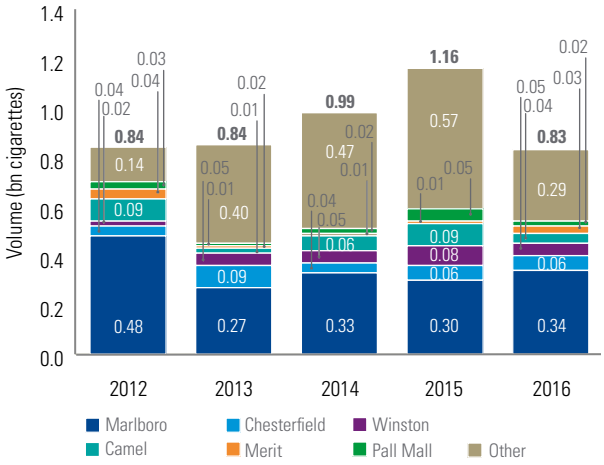
ND(L) and C&C flows

- Non-domestic legal declined by 28% in 2016
- While C&C remained stable, sources and brands again evolved in 2016, indicating the flexibility of illicit trade in Italy
  - Duty free labelled Regina increased by 0.99 billion cigarettes to become the largest contributor to Illicit Whites brand flows, while Belarusian labelled product declined by 66%
  - Ukrainian labelled cigarettes increased by 0.67 billion, mainly Chesterfield, Marlboro and Winston
  - Counterfeit declined by 74%, behind an 88% fall in Ukrainian and Russian labelled packs identified
  - 46% of Regina and 43% of Ukrainian product were identified in Naples, which continues to account for 45% of illicit cigarettes in Italy

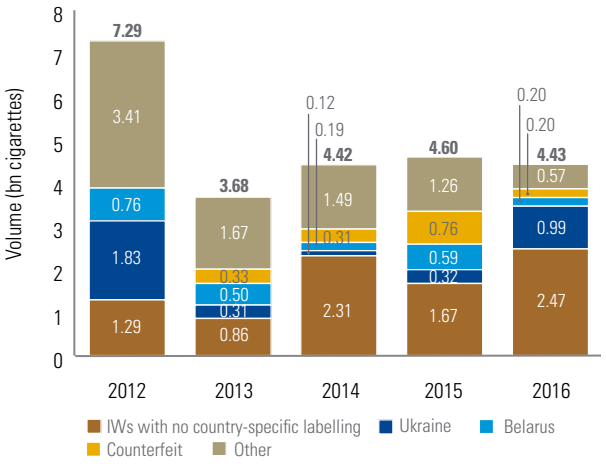
ND(L) by country of origin – 2012-2016[(1)(a)(b)]



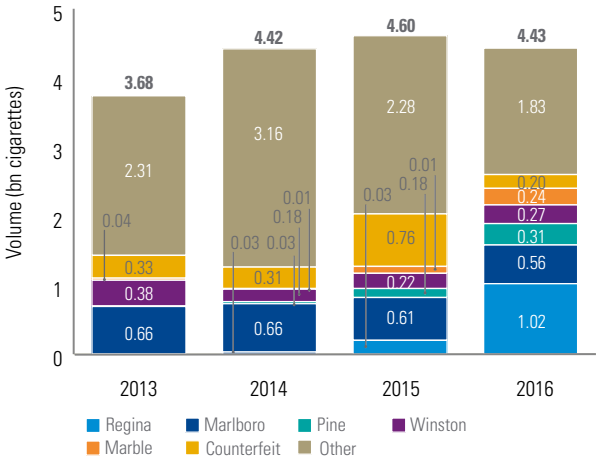
ND(L) by brand – 2012-2016[(1)(a)(b)]



C&C by country of origin – 2012-2016[(1)(a)]



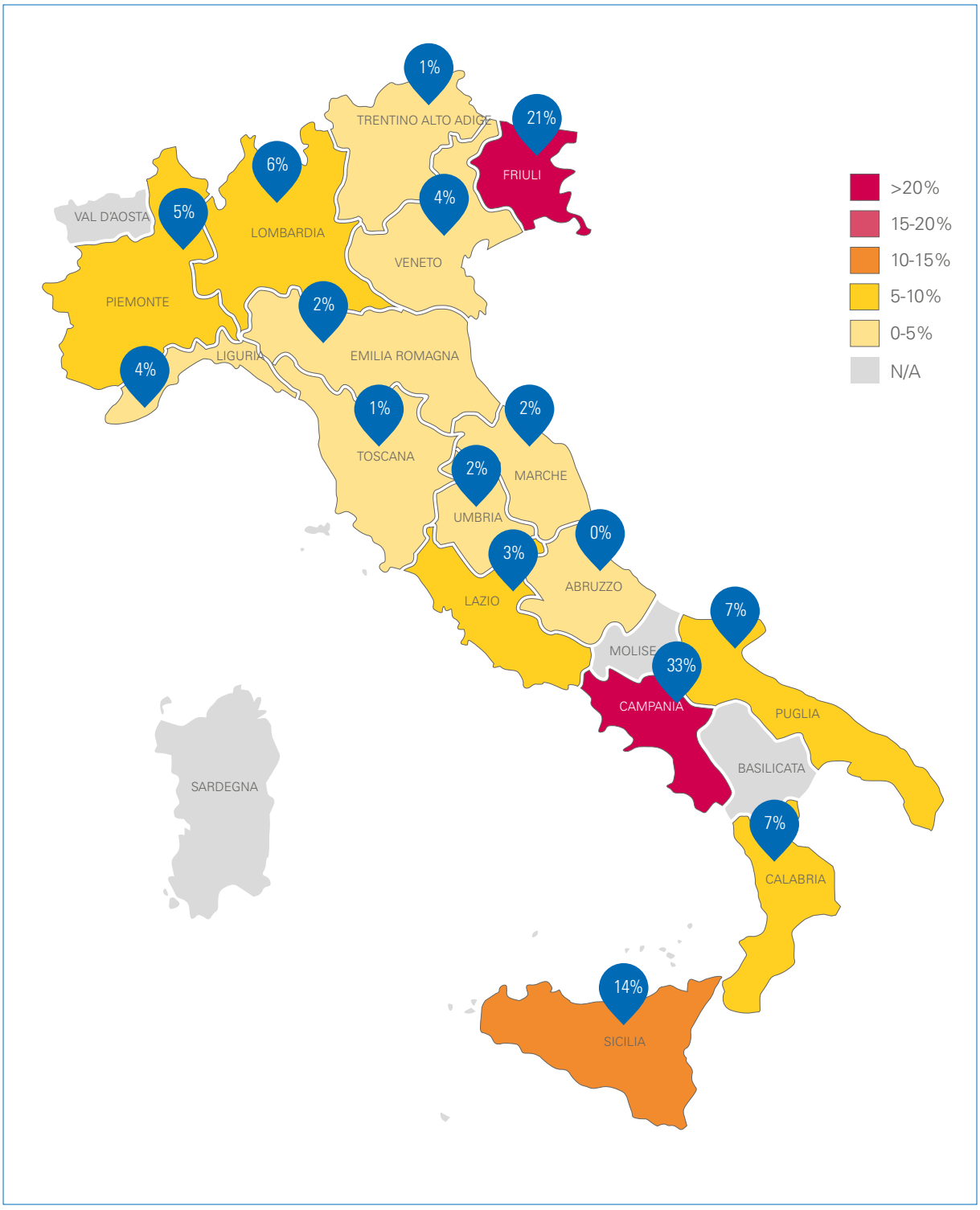
C&C by brand – 2013-2016[(1)(a)]



Notes: *(a) KPMG calculates the split between C&C and ND(L) by calculating the ND(L) volumes and subtracting from the total inflows (b) In years 2014-2016 the ND(L) analysis was undertaken using border crossings and regional sales data provided by manufacturers; detail surrounding methodology*

Sources: *(1) KPMG analysis of UNWTO Factbook 2012-2015, EU flows model and data sources provided by manufacturers*

Non-domestic incidence heat map



Source: *Independent agency Empty Pack Survey, 2016*

RUSI Analysis: Organised Crime and the Illicit Cigarette Trade in Italy

The following analysis is based on RUSI fieldwork completed in 2015-16

Groups

OCGs involved in C&C smuggling in Italy operate within a complex, highly active and longstanding organised crime community. Notably, **cigarette smuggling played an important role in the evolution of the Italian mafias** – from the Camorra to Cosa Nostra and the Sacra Corona Unita. Research suggests that some mafia groups continue to deal in illicit tobacco, whilst controlling strategic areas of arrival and transit for further distribution in Italy. In other cases, local mafias do not participate directly, but allow foreign OCGs to smuggle C&C under their supervision, whilst demanding a percentage of the profits.

For instance, the Camorra maintains strong control over territory in Naples, imposing taxes and rent for properties used by other groups engaged in the illicit cigarette trade. At times, it contributes facilities and expertise from its networks to support these operations. **Within Italy, the illicit cigarette market is highly concentrated in this region**; the port of Naples has long been the country's major hub for inflows of C&C. In Campania the illicit market is estimated at 33% of the total market.

There is also evidence of cooperation between OCGs operating in Italy and overseas counterparts. This concerns, most notably, counterparts in Eastern Europe and the UK. Recent investigations have revealed cooperation between OCGs in Italy and Montenegro in importing illicit cigarettes into Bari, as well as an international network exporting C&C from a production plant near Turin.

Routes

Italy's geographic position and extensive coastline make it an attractive transit country for OCGs wishing to transport C&C on to other European countries. In recent years, China, Pakistan and India have emerged as the main sources of counterfeit products entering Italy.

These and other types of illicit cigarettes typically arrive by sea: the ports of Naples and Genova are key entry points for illicit whites concealed within shipping containers. C&C from North Africa (particularly Algeria) is also known to enter through Palermo, whilst other products transit Greece en route to Italy's Adriatic ports.

C&C also enters Italy by land. Cigarettes from Eastern Europe enter by truck via the north-eastern border through Trieste, typically destined for the Italian market. Russia, Poland, Belarus and Ukraine have typically been the main sources of C&C entering Italy via the north-east, with lorry loads also originating from Bulgaria and Romania.

RUSI Analysis: Organised Crime and the Illicit Cigarette Trade in Italy (cont.)

Methods

As elsewhere, **OCGs conceal C&C among legal, declared products, with 'little and often' smuggling increasingly in evidence**. By sea, C&C enters Italy not just by container, but in lesser volumes by smaller boats. Corfu to Bari is a known route for small-scale smuggling by ferry, while boats are also known to drop illicit cigarettes on beaches by night.

By land, small volumes entering northern Italy have been found in hidden compartments and false floors, as well as travelling by commercial passenger bus. Lower prices in neighbouring countries such as Slovenia also encourage low-level 'ant smuggling' at borders. In addition, **a 'little and often' modality is increasingly seen in consignments by post**: customs are aware of C&C posted from parts of Asia, with Italy acting as a transit point.

Once in Italy, **illicit cigarettes are sold in markets and on the street**, with vendors concealing supplies nearby. In Naples, illicit cigarettes are sold openly from private apartments, with children and the elderly seen selling C&C from ground-floor windows. In stores, illicit cigarettes are also sold openly, always in quantities of less than 10 kg, to keep this activity firmly in the category of 'administrative crime'.

Unlike some other European countries, **there is little online trade in C&C in Italy**. The country lacks a sophisticated IT infrastructure and even legal online sales channels are less frequently used than elsewhere. Finally, despite Italy being the largest grower of tobacco in Europe, it is not a major source country for illicit cigarettes. Though illicit factories have been uncovered in the past, new discoveries of such facilities are rare.

Outlook

There is a strong law-enforcement response to the illicit cigarette trade in Italy. The country's longstanding battle against organised crime means that substantial state machinery exists to combat the threat – there are dedicated task forces responsible for targeting OCGs engaged in C&C smuggling, and specialized prosecutors in the judiciary.

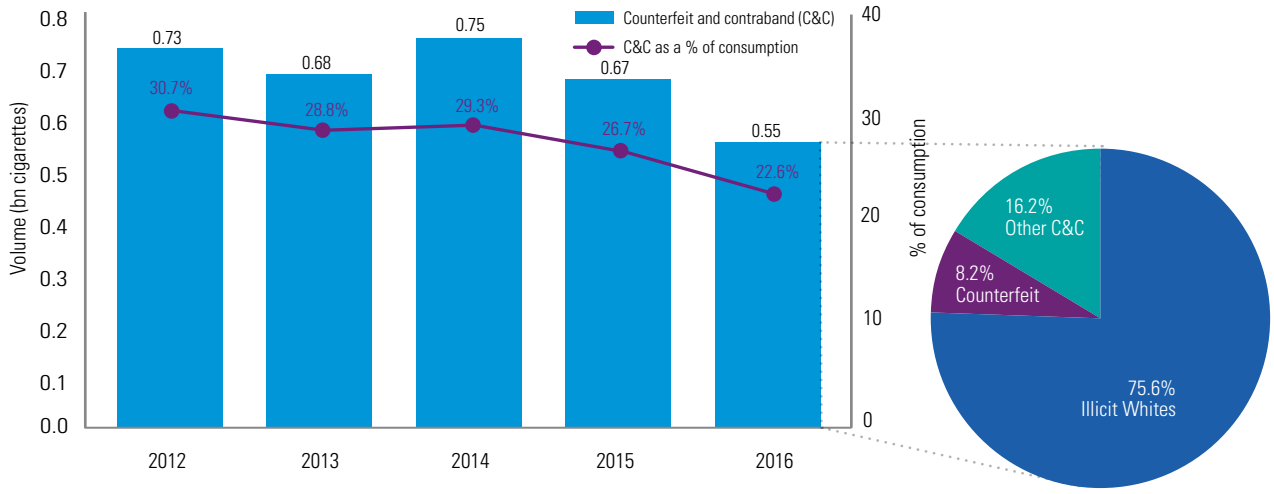
The creation of a bi-cameral Anti-Counterfeit Committee within Parliament further supports efforts to respond to the illicit cigarette trade. Yet new legislation decriminalising low-level illicit trade also indicates that **efforts to tackle the illicit cigarette trade are at risk of deprioritisation** in relation to those targeting other forms of organised crime. As in other countries studied, the need to prioritise organised migration crime has taken precedence over less immediate security threats since 2015, impacting law-enforcement capacity to disrupt the illicit cigarette trade.

Latvia

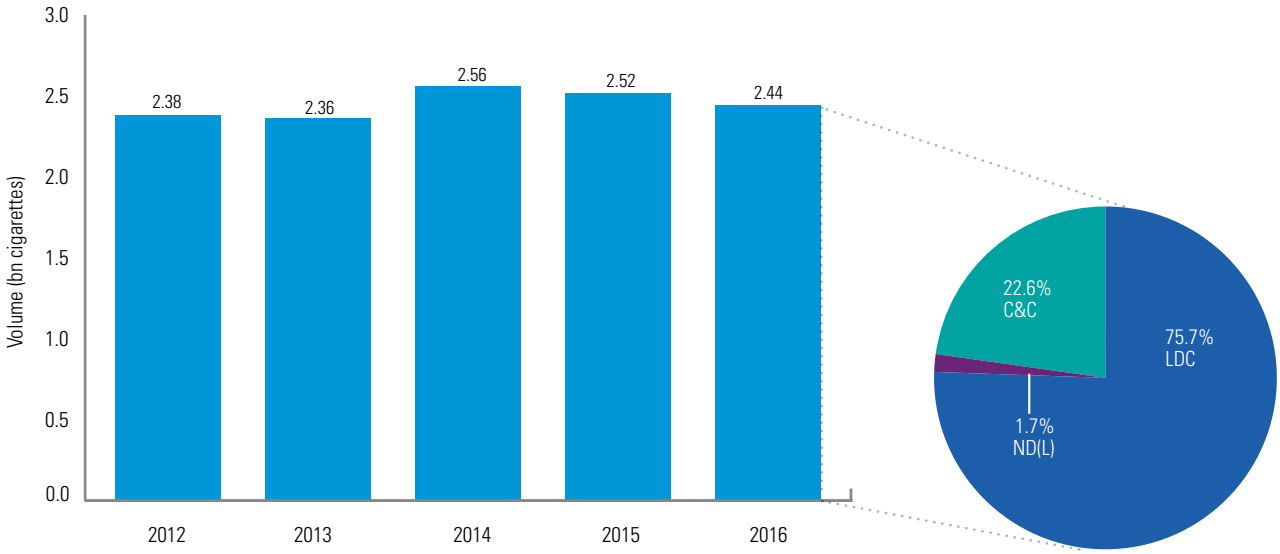
Overview

- Latvia had the highest rate of C&C as a percentage of total consumption, at 22.6%
- 75.6% of C&C was identified as Illicit White brand flows, compared to 67.2% in 2015
- Total consumption declined by 3% against the backdrop of net migration out of Latvia, which resulted in a decline in the adult population

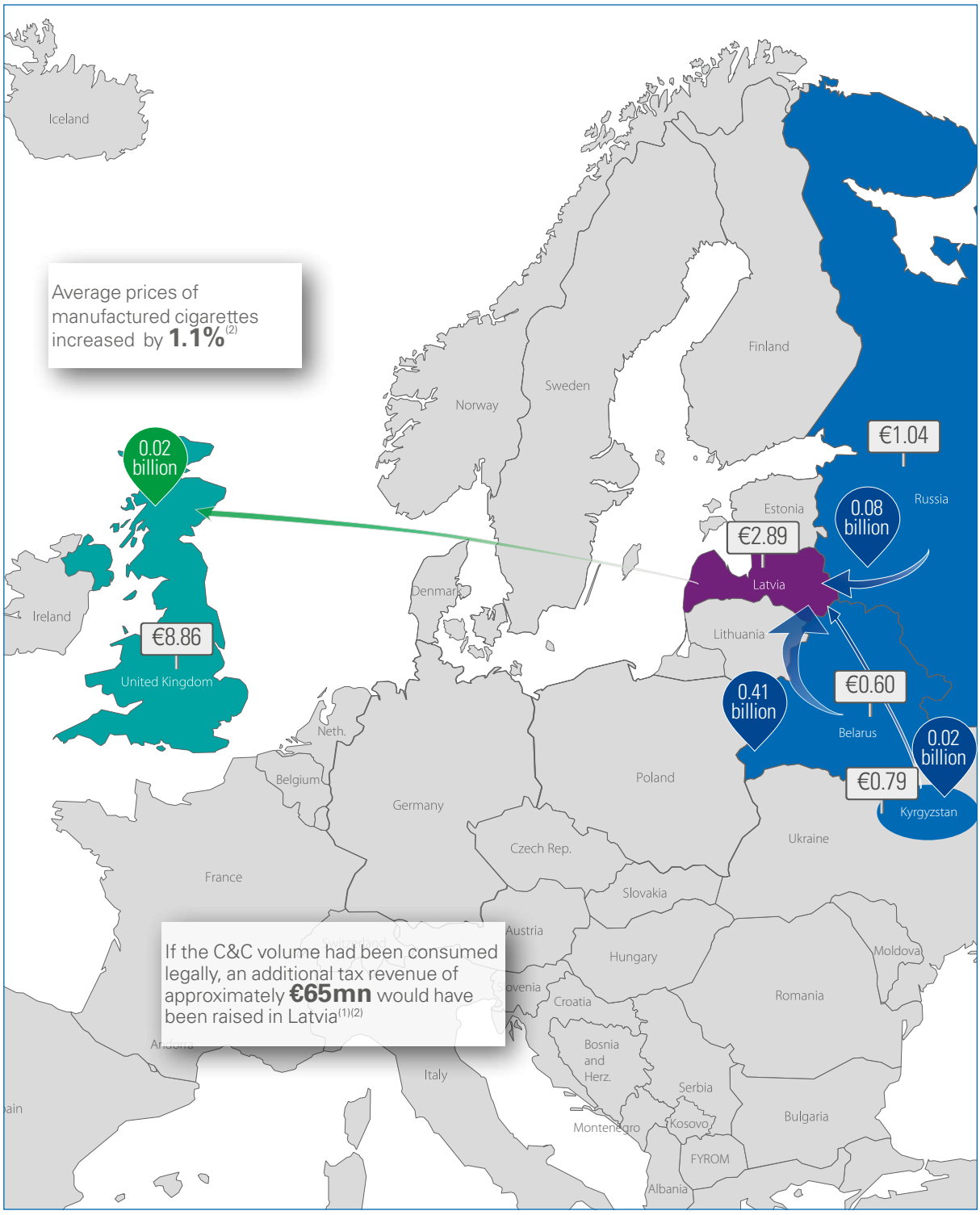
Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2012-2016



Manufactured cigarette consumption – 2012-2016



Key inflows and outflows



Notes: *(a) Map shows major flows. Countries which are both source and destination countries are coded according to the larger flow*

Sources: *(1) KPMG EU Flows Model and analysis of data sources provided by manufacturers (2) EC Excise Duty tables, January 2017 (Part III – Manufactured Tobacco)*

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2012-2016[1][2][a]

TOTAL LATVIA CONSUMPTION						
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**	**2015-16 %**
Legal domestic sales (LDS)	1.677	1.673	1.860	1.915	1.947	2%
Outflows	-0.102	-0.046	-0.063	-0.092	-0.097	5%
Legal domestic consumption (LDC)	1.575	1.628	1.797	1.823	1.851	2%
Non-domestic legal (ND(L))	0.072	0.052	0.014	0.021	0.041	95%
Counterfeit and contraband (C&C)	0.728	0.681	0.749	0.671	0.552	(18%)
Total non-domestic	0.800	0.732	0.764	0.692	0.593	(14%)
Total consumption	**2.375**	**2.360**	**2.560**	**2.515**	**2.444**	**(3%)**

- The overall total consumption decline was attributed to falling C&C
- Inflows reduced by 14% following a 13% decline in Belarusian inflows and a 29% decline in counterfeit, possibly due to increased law enforcement activity, illustrated by greater seizure volumes[3]
- Outflows to Estonia increased as the price-gap between Estonia and Latvia widened from €0.21 to €0.35[4]

Total inflows by country of origin – 2012-2016[1][b][c]

ND INFLOWS TO LATVIA					
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**
Belarus	0.334	0.416	0.505	0.467	0.408
Russia	0.433	0.303	0.208	0.121	0.085
Counterfeit	0.000	0.004	0.028	0.064	0.045
Kyrgyzstan	0.000	0.000	0.003	0.012	0.018
Duty Free Labelled	0.007	0.002	0.006	0.013	0.013
Other	0.026	0.007	0.013	0.015	0.024
Total inflows	**0.800**	**0.732**	**0.764**	**0.692**	**0.593**

Total outflows by destination country – 2012-2016[1]

OUTFLOWS FROM LATVIA					
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**
UK	0.036	0.008	0.010	0.030	0.022
Estonia	0.003	0.004	0.007	0.003	0.015
Germany	0.002	0.003	0.006	0.016	0.012
Sweden	0.007	0.011	0.006	0.007	0.012
France	0.002	0.005	0.003	0.001	0.008
Other	0.051	0.016	0.033	0.033	0.027
Total outflows	**0.102**	**0.046**	**0.063**	**0.092**	**0.097**

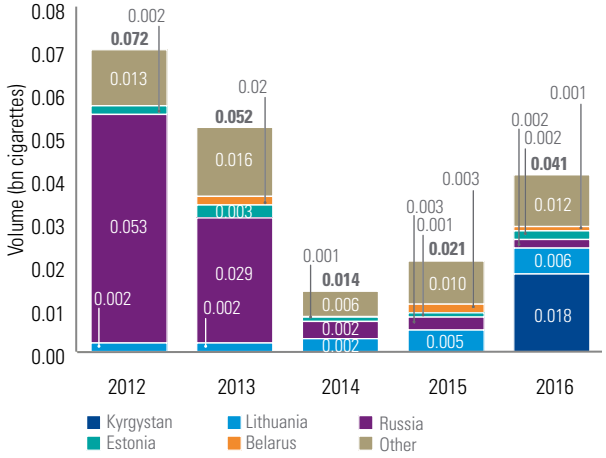
Notes: *(a) In years 2012-2016 non-domestic incidence is stated on sticks basis (b) Illicit Whites with no country specific labelling comprise Illicit Whites labelled as "Duty free" and "Unspecified". Data from previous years reflects the same definition; please refer to the appendix for full methodology (c) The Duty Free and Unspecified inflows exclude Illicit Whites which have Duty Free labelling and unspecified labelling*

Sources: *(1) KPMG EU Flows Model and analysis of data sources provided by manufacturers (2) KPMG analysis of UNWTO Factbook 2012-2015 (3) 'Progress Report on the implementation of the Commission communication "Stepping up the fight against cigarette smuggling and other forms of illicit trade in tobacco products'"' European Commission report*

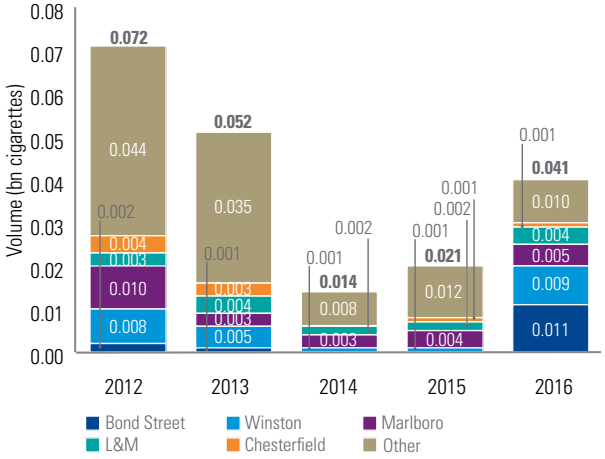
ND(L) and C&C flows

- ND(L) volumes almost doubled following a steep increase in ND(L) originating from Kyrgyzstan, reflecting an increase in travel between each country as a result of closer cooperation between the two countries in transport, transit and logistics[2]
- C&C declined by 18%, mostly as a result of reduced flows from Belarus
- Belarus remained the main source of Illicit Whites, predominantly trademark-owned by Grodno Tobacco
- Consumption of the Belarusian brands, NZ and Premier, increased and accounted for 56% of C&C

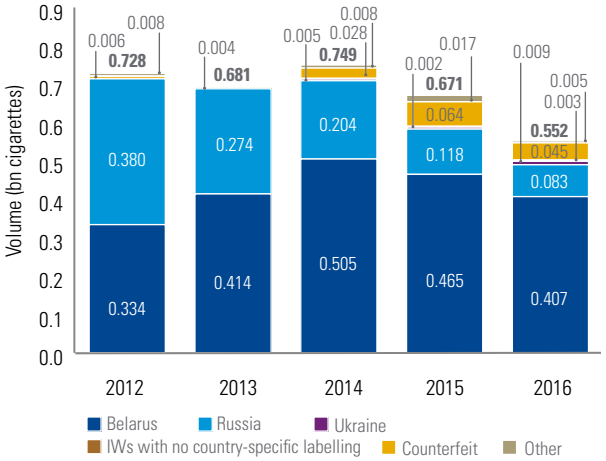
ND(L) by country of origin – 2012-2016[1][a][b]



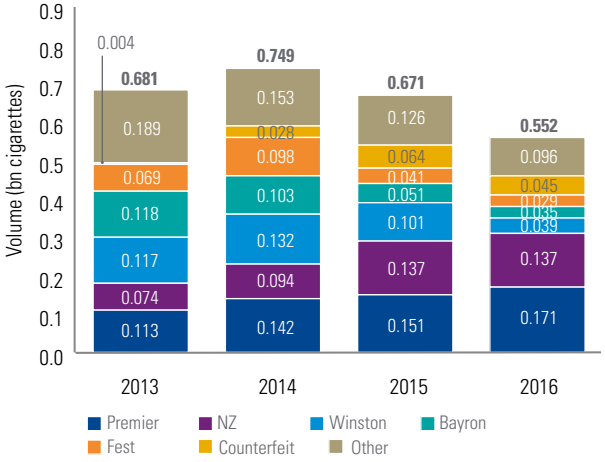
ND(L) by brand – 2012-2016[1][a][b]



C&C by country of origin – 2012-2016[1][a]



C&C by brand – 2013-2016[1][a]



Notes: *(a) KPMG calculates the split between C&C and ND(L) by calculating the ND(L) volumes and subtracting from the total inflows (b) In 2014 to 2016 the ND(L) analysis was undertaken using border crossings and regional sales data provided by manufacturers; detail surrounding methodology changes is provided in the appendix*

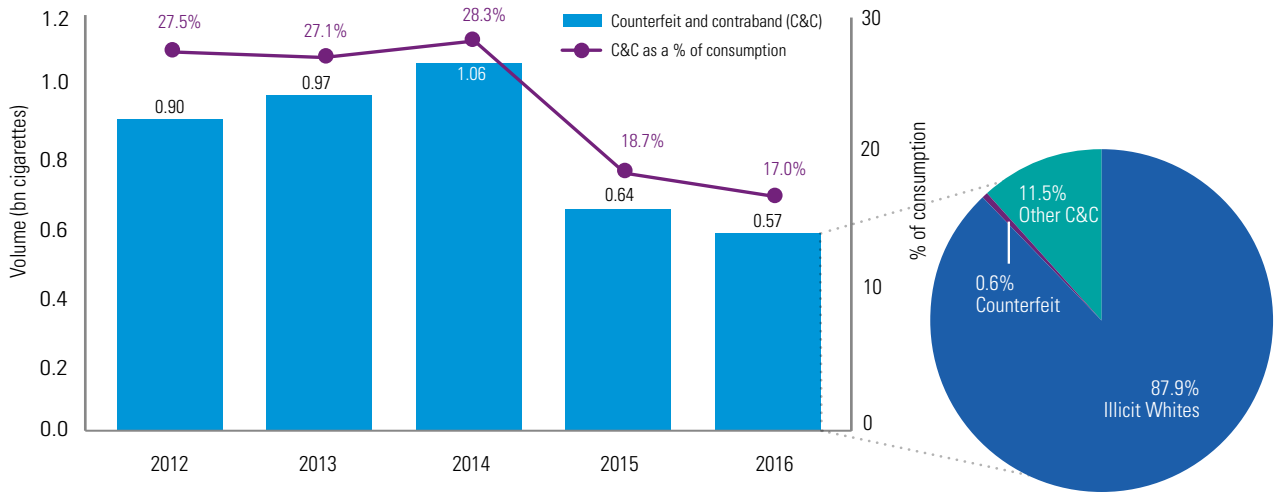
Sources: *(1) KPMG analysis of UNWTO Factbook 2012-2015, EU flows model and data sources provided by manufacturers (2) "Transport Ministry invites Kyrgyzstan to use advantages of Latvia's special economic zones' Baltic News Network, 2017*

Lithuania

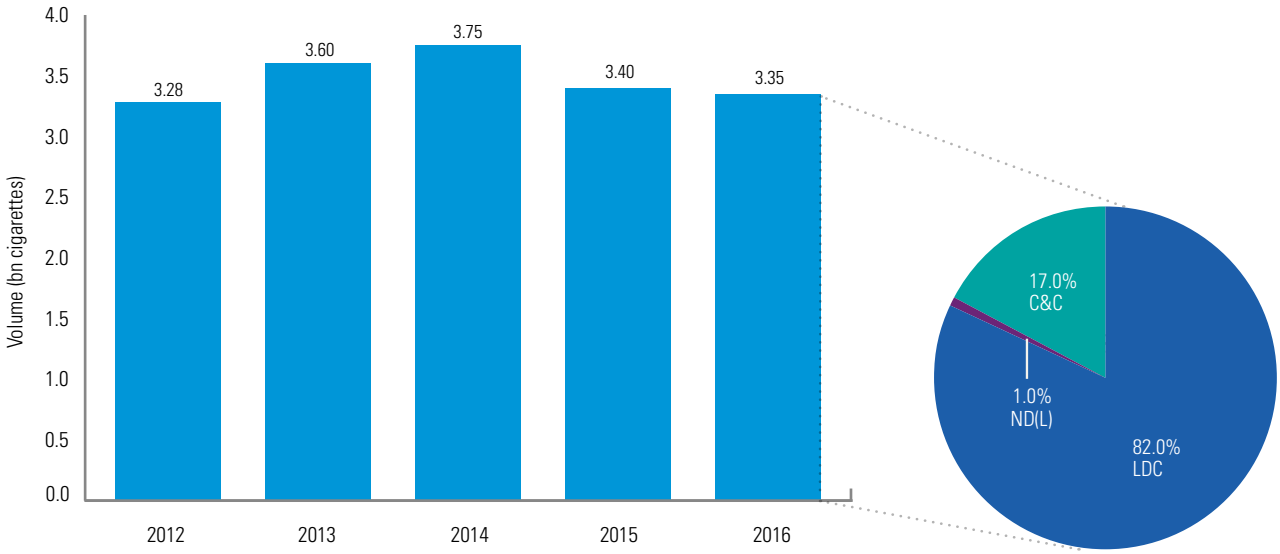
Overview

- C&C declined by 11% in 2016 following a combined approach from law enforcement agencies and customs
- Total consumption also decreased as smoking prevalence fell and net migration out of Lithuania increased
- The high levels of C&C in Lithuania can be explained by its proximity to cheaper-priced countries outside the EU
- Illicit Whites flows from Belarus continued to be the largest component of C&C consumption

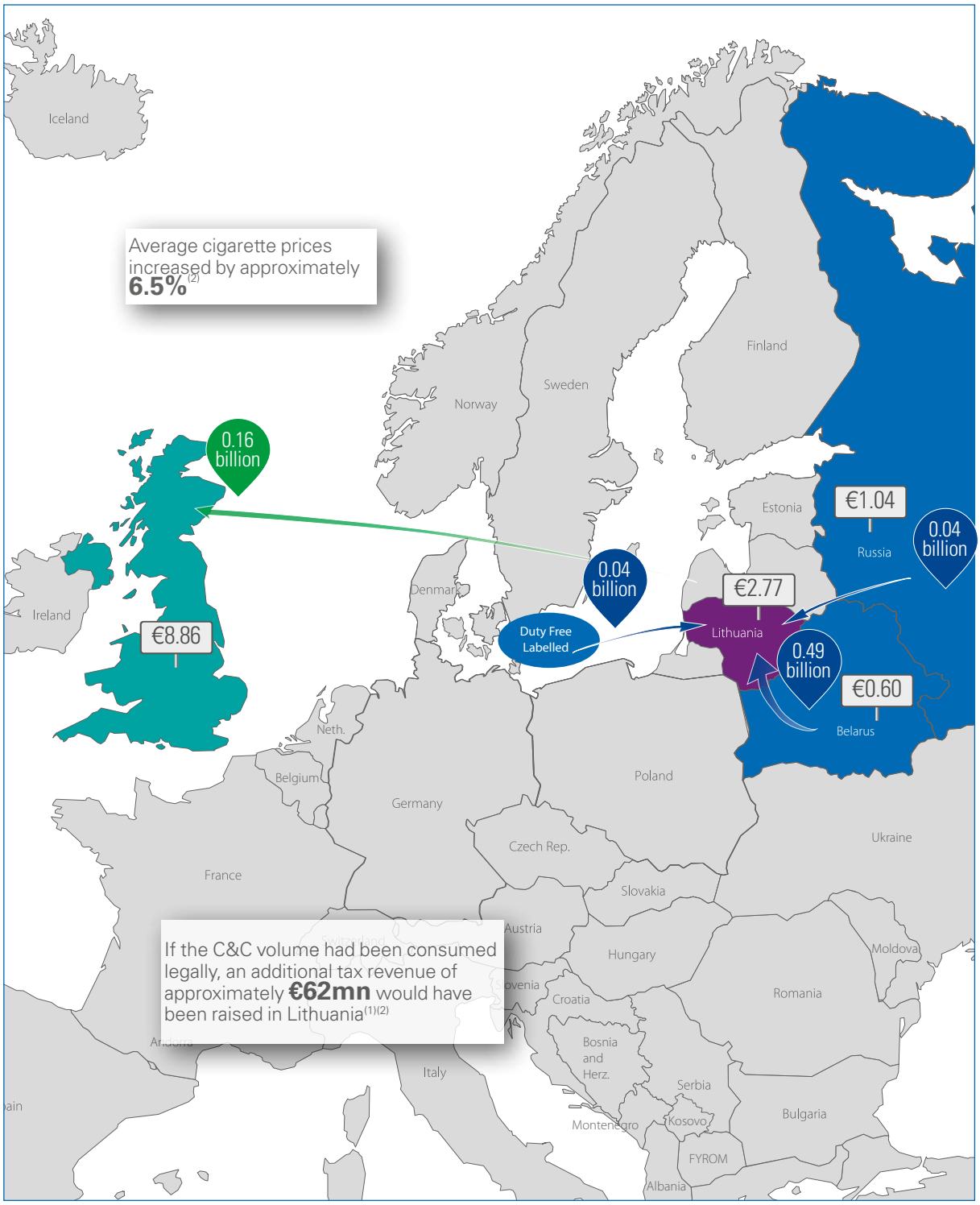
Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2009-2016



Manufactured cigarette consumption – 2009-2016



Key inflows and outflows



Notes: *(a) Map shows major flows. Countries which are both source and destination countries are coded according to the larger flow*

Sources: *(1) KPMG EU Flows Model and analysis of data sources provided by manufacturers (2) EC Excise Duty tables, January 2017 (Part III – Manufactured Tobacco)*

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2012-2016[1][2][a]

TOTAL LITHUANIA CONSUMPTION						
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**	**2015-16 %**
Legal domestic sales (LDS)	2.623	2.787	2.918	3.173	3.129	(1%)
Outflows	-0.402	-0.252	-0.257	-0.446	-0.385	(14%)
Legal domestic consumption (LDC)	2.221	2.535	2.661	2.727	2.744	1%
Non-domestic legal (ND(L))	0.160	0.087	0.023	0.037	0.033	(10%)
Counterfeit and contraband (C&C)	0.904	0.974	1.062	0.637	0.570	(11%)
Total non-domestic	1.064	1.061	1.085	0.674	0.603	(11%)
Total consumption	**3.285**	**3.596**	**3.746**	**3.401**	**3.347**	**(2%)**

- Non-domestic consumption declined against a backdrop of the decline in travel flows of Lithuanian residents[3]
- Non-domestic inflows from Belarus declined, possibly as a result of continued regulation which limits the number of cigarettes an individual can bring into the Lithuania from non-EU countries[4]
- Outflows to the UK and Norway declined over the year following the impact of TPD2, introduced in May 2016, which enforces pack compliance of tobacco products sold in the EU[5]

Total inflows by country of origin – 2012-2016[1][b][c]

ND INFLOWS TO LITHUANIA					
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**
Belarus	0.764	0.813	0.867	0.529	0.487
Duty Free Labelled	0.087	0.082	0.074	0.049	0.036
Russia	0.178	0.124	0.064	0.018	0.035
IWs with no country-specific labelling	0.014	0.023	0.052	0.049	0.014
Poland	0.002	0.002	0.003	0.005	0.006
Other	0.019	0.018	0.026	0.024	0.026
Total inflows	**1.064**	**1.061**	**1.085**	**0.674**	**0.603**

Total outflows by destination country – 2012-2016[1]

OUTFLOWS FROM LITHUANIA					
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**
UK	0.224	0.094	0.095	0.206	0.157
Norway			0.015	0.133	0.094
Ireland	0.059	0.049	0.029	0.024	0.031
France	0.047	0.038	0.030	0.018	0.029
Germany	0.031	0.026	0.049	0.022	0.023
Other	0.042	0.045	0.040	0.044	0.052
Total outflows	**0.402**	**0.252**	**0.257**	**0.446**	**0.385**

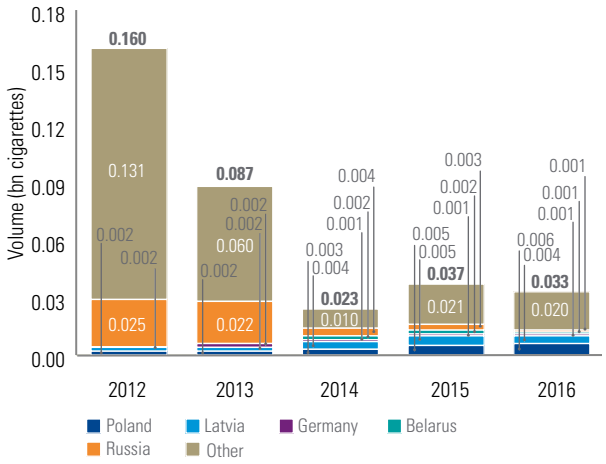
Notes: *(a) In years 2012-2016 non-domestic incidence is stated on sticks basis (b) Illicit Whites with no country specific labelling comprise Illicit Whites labelled as "Duty free" and "Unspecified". Data from previous years reflects the same definition; please refer to the appendix for full methodology (c) The Duty Free and Unspecified inflows exclude Illicit Whites which have Duty Free labelling and unspecified labelling*

Sources: *(1) KPMG EU Flows Model and analysis of data sources provided by manufacturers (2) KPMG analysis of UNWTO Factbook 2012-2015 (3) WTO data, 2016 (4) 'Lithuania Customs, Currency & Airport Tax regulations', IATA 2017 (5) '10 key changes for tobacco products sold in the EU', Europa, May 2016*

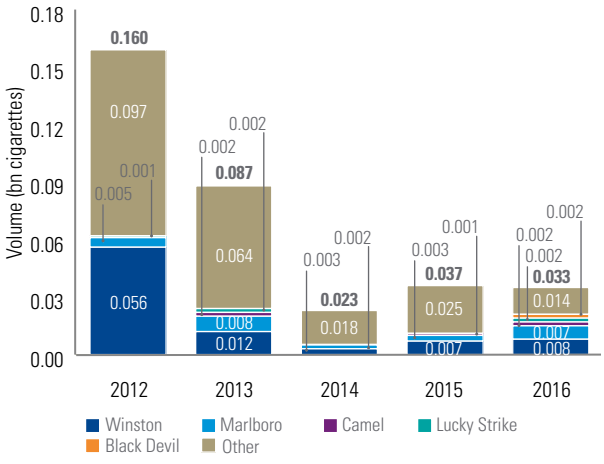
ND(L) and C&C flows

- ND(L) volumes remained low following the lowering of the legal limit of tax-free cigarettes to 40 cigarettes per month into Lithuania from non-EU countries
- 85% of contraband came from Belarus, where cigarettes are 4.6 times cheaper
- The three largest C&C brands, Fest, Minsk and NZ, are trademark-owned by Grodno Tobacco and are the cheapest brands available in Belarus
- Whilst consumption of other C&C brands decreased over the year, NZ increased by 8%

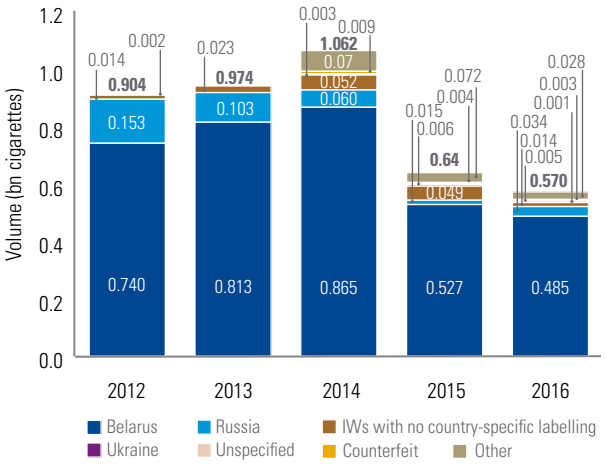
ND(L) by country of origin – 2012-2016[(1)(a)(b)]



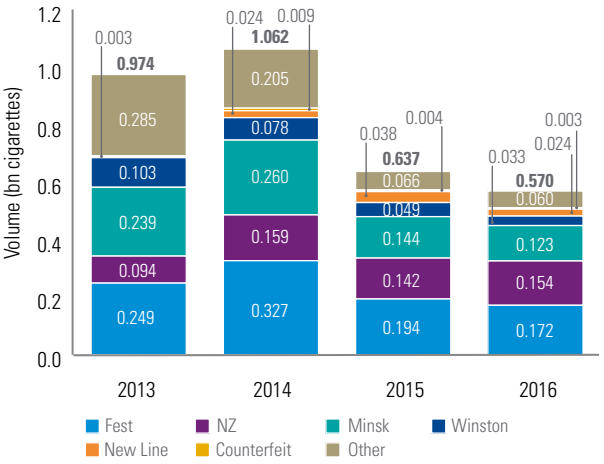
ND(L) by brand – 2012-2016[(1)(a)(b)]



C&C by country of origin – 2012-2016[(1)(a)]



C&C by brand – 2013-2016[(1)(a)]



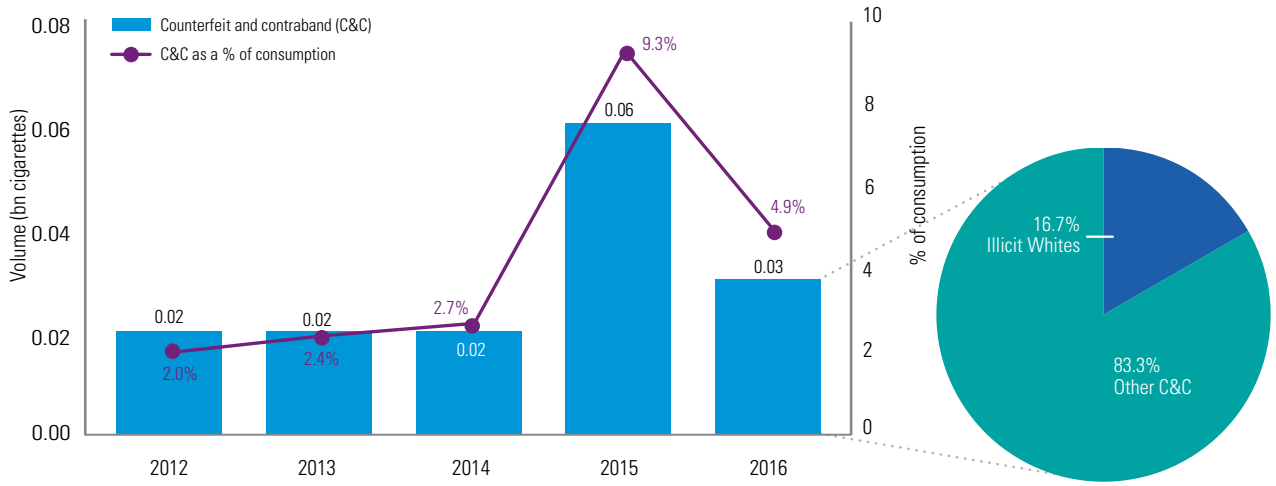
Notes: *(a) KPMG calculates the split between C&C and ND(L) by calculating the ND(L) volumes and subtracting from the total inflows (b) In 2014 and 2016 the ND(L) analysis was undertaken using border crossings and regional sales data provided by manufacturers; detail surrounding methodology changes is provided in the appendix*

Sources: *(1) KPMG analysis of UNWTO Factbook 2012-2015, EU flows model and data sources provided by manufacturers*

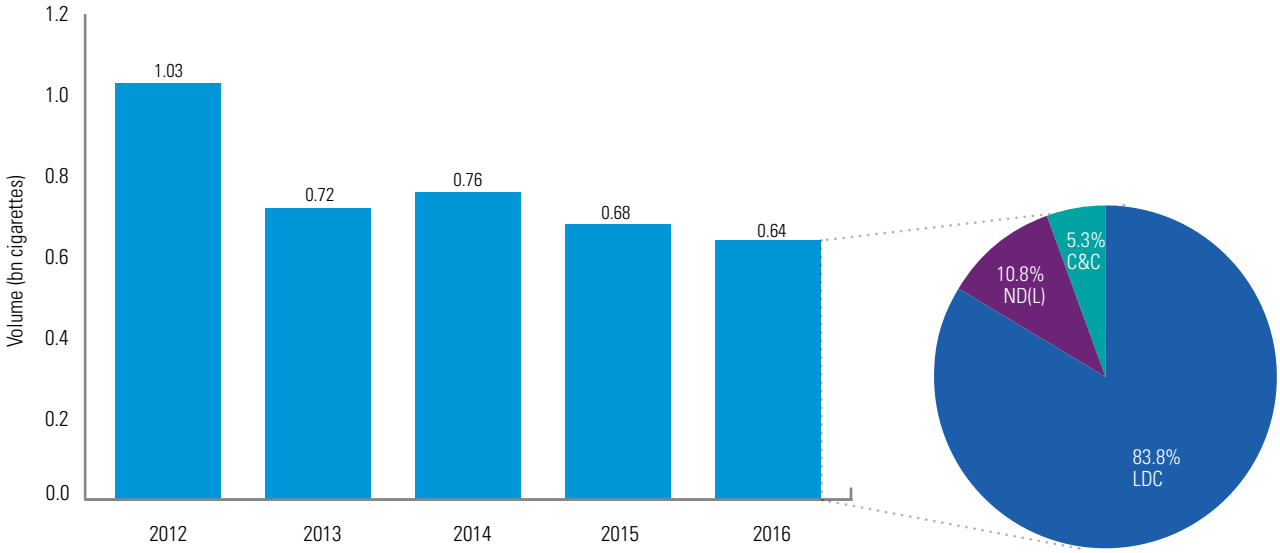
Luxembourg

- C&C declined, accounting for 4.9% of total consumption in 2016
  - Illicit Whites as a share of total C&C consumption has continued to increase to 16.7%
- C&C originated from lower priced countries, mainly in Eastern Europe
- Outflows from Luxembourg were 22 times greater than inflows, reflecting lower prices compared to surrounding countries

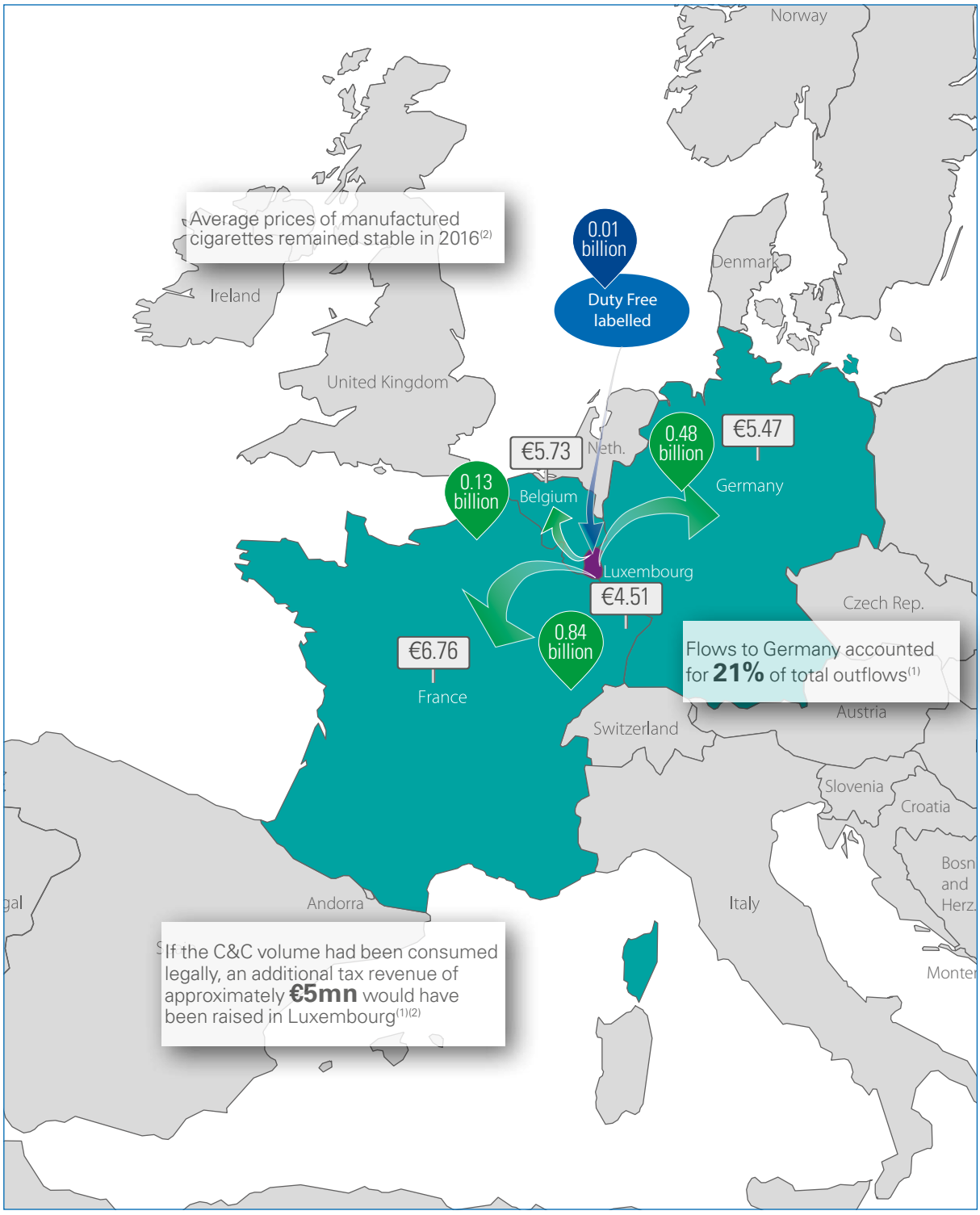
Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2012-2016



Manufactured cigarette consumption – 2012-2016



Key inflows and outflows



Note: *(a) Map shows major flows. Countries which are both source and destination are coded according to the larger flow*

Sources: *(1) KPMG EU Flows Model and analysis of data sources provided by manufacturers, (2) EC Excise Duty tables, January 2017 (Part III – Manufactured Tobacco)*

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2012-2016[1][2][a]

TOTAL LUXEMBOURG CONSUMPTION						
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**	**2015-16 %**
Legal domestic sales (LDS)	3.680	3.420	3.390	2.840	2.811	(1%)
Outflows	-2.720	-2.770	-2.740	-2.300	-2.276	(1%)
Legal domestic consumption (LDC)	0.960	0.660	0.650	0.540	0.534	(1%)
Non-domestic legal (ND(L))	0.050	0.040	0.090	0.070	0.069	(1%)
Counterfeit and contraband (C&C)	0.020	0.020	0.020	0.060	0.034	(43%)
Total non-domestic	0.068	0.058	0.106	0.136	0.103	(24%)
Total consumption	**1.030**	**0.720**	**0.760**	**0.680**	**0.638**	**(6%)**

- With the lowest price in the region, Luxembourg is predominantly an outflow country; 81% of legal domestic sales left the country and were consumed legally in neighbouring countries
- 64% of outflows went to the neighbouring countries of Germany, France and Belgium
  - French outflows accounted for 37% of total outflows, despite falling by 9% from 2015 as travel flows from France decreased
- Non domestic inflows decreased by 0.03 billion, driven by a reduction of flows from France and Duty Free labelled

Total inflows by country of origin – 2012-2016[1][b][c][d]

ND INFLOWS TO LUXEMBOURG					
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**
France	0.025	0.014	0.032	0.023	0.015
Duty Free Labelled	0.010	0.004	0.007	0.021	0.011
Germany	0.008	0.008	0.024	0.006	0.010
Belgium	0.004	0.012	0.017	0.020	0.009
Portugal	0.001	0.000	0.004	0.015	0.007
Other	0.021	0.021	0.023	0.052	0.051
Total inflows	**0.069**	**0.058**	**0.106**	**0.136**	**0.103**

Total outflows by destination country – 2012-2016[1]

OUTFLOWS FROM LUXEMBOURG					
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**
France	1.113	1.082	1.113	0.926	0.842
Germany	0.461	0.446	0.478	0.315	0.475
Belgium	0.515	0.420	0.247	0.168	0.132
Other	0.631	0.822	0.902	0.891	0.827
Total outflows	**2.720**	**2.770**	**2.740**	**2.300**	**2.276**

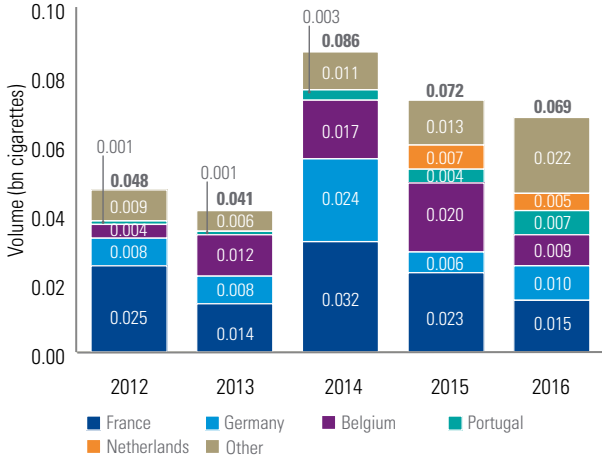
Notes: *(a) In years 2012-2016 non-domestic incidence is stated on sticks basis (b) Illicit Whites with no country specific labelling comprise Illicit Whites labelled as "Duty free" and "Unspecified". Data from previous years reflects the same definition; please refer to the appendix for full methodology (c) The Duty Free and Unspecified inflows exclude Illicit Whites which have Duty Free labelling and unspecified labelling respectively*

Sources: *(1) KPMG EU Flows Model and analysis of data sources provided by manufacturers (2) KPMG analysis of UNWTO Factbook 2012-2015*

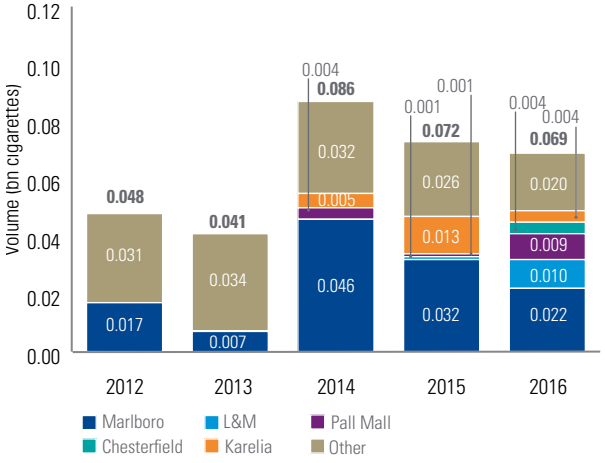
ND(L) and C&C flows

- Approximately 67% of inflows to Luxembourg are legal as the neighbouring countries of France, Belgium and Germany all have higher prices, with price differences of €2.24, €1.21 and of €0.96 respectively
- The remainder of ND(L) was reflective of tourist flows
- Similar volumes of C&C from Belarus were identified in 2016 as in 2015, with prices in Belarus over seven times cheaper than in Luxembourg

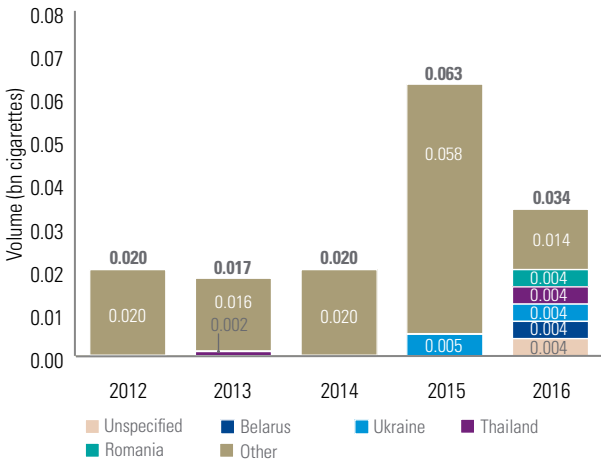
ND(L) by country of origin – 2012-2016[(1)(a)(b)]



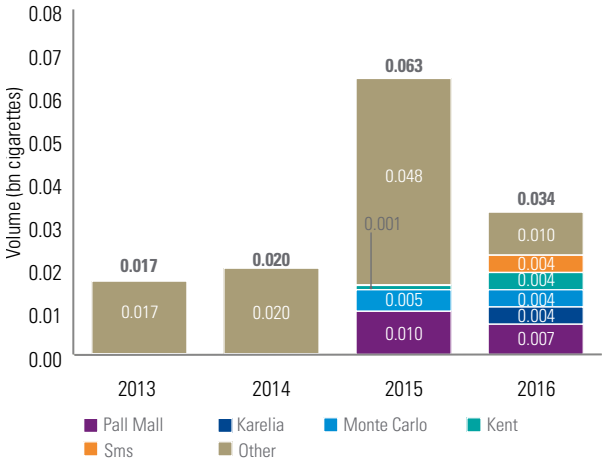
ND(L) by brand – 2012-2016[(1)(a)(b)]



C&C by country of origin – 2012-2016[(1)(a)]



C&C by brand – 2013-2016[(1)(a)]



Notes: *(a) KPMG calculates the split between C&C and ND(L) by calculating the ND(L) volumes and subtracting from the total inflows*
(b) In 2014-2016 the ND(L) analysis was undertaken using border crossings and regional sales data provided by manufacturers; detail surrounding methodology changes is provided in the appendix

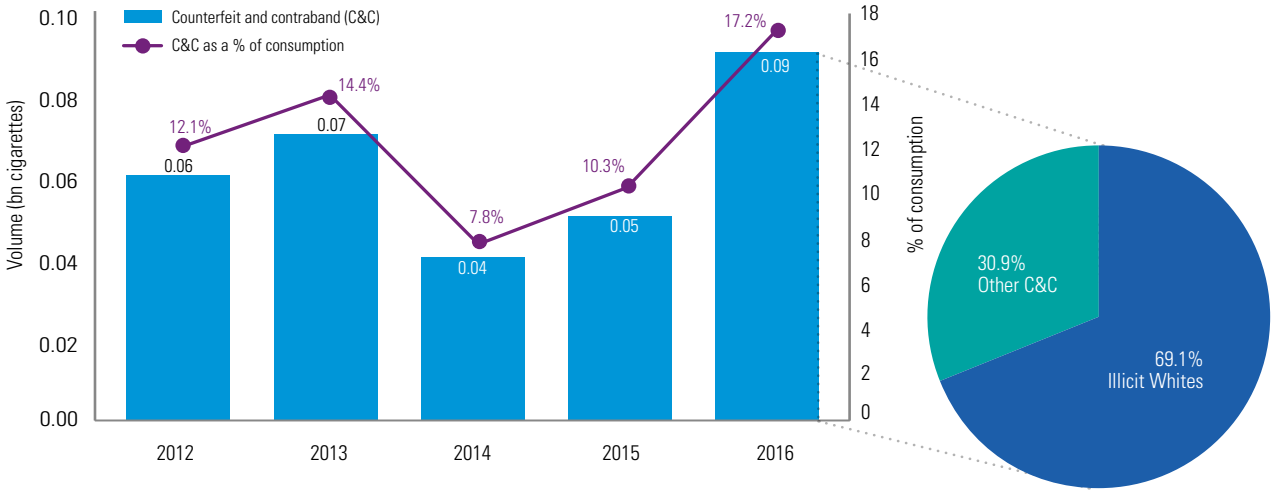
Sources: *(1) KPMG EU Flows Model and analysis of data sources provided by manufacturers*

Malta

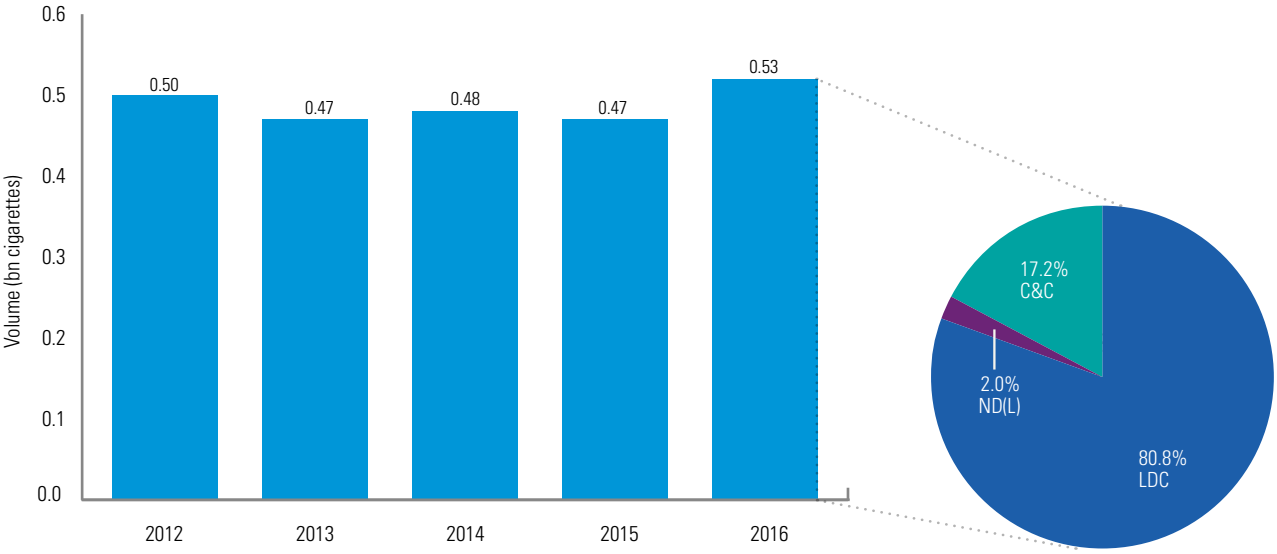
Overview

- C&C consumption in Malta increased to 17.2% of total consumption, making it one of the highest in the EU
- Illicit Whites brand flows were the main source of C&C volumes, representing 22% in 2014 of C&C and 69% in 2016
- The increase in C&C contributed to increasing cigarette consumption in 2016

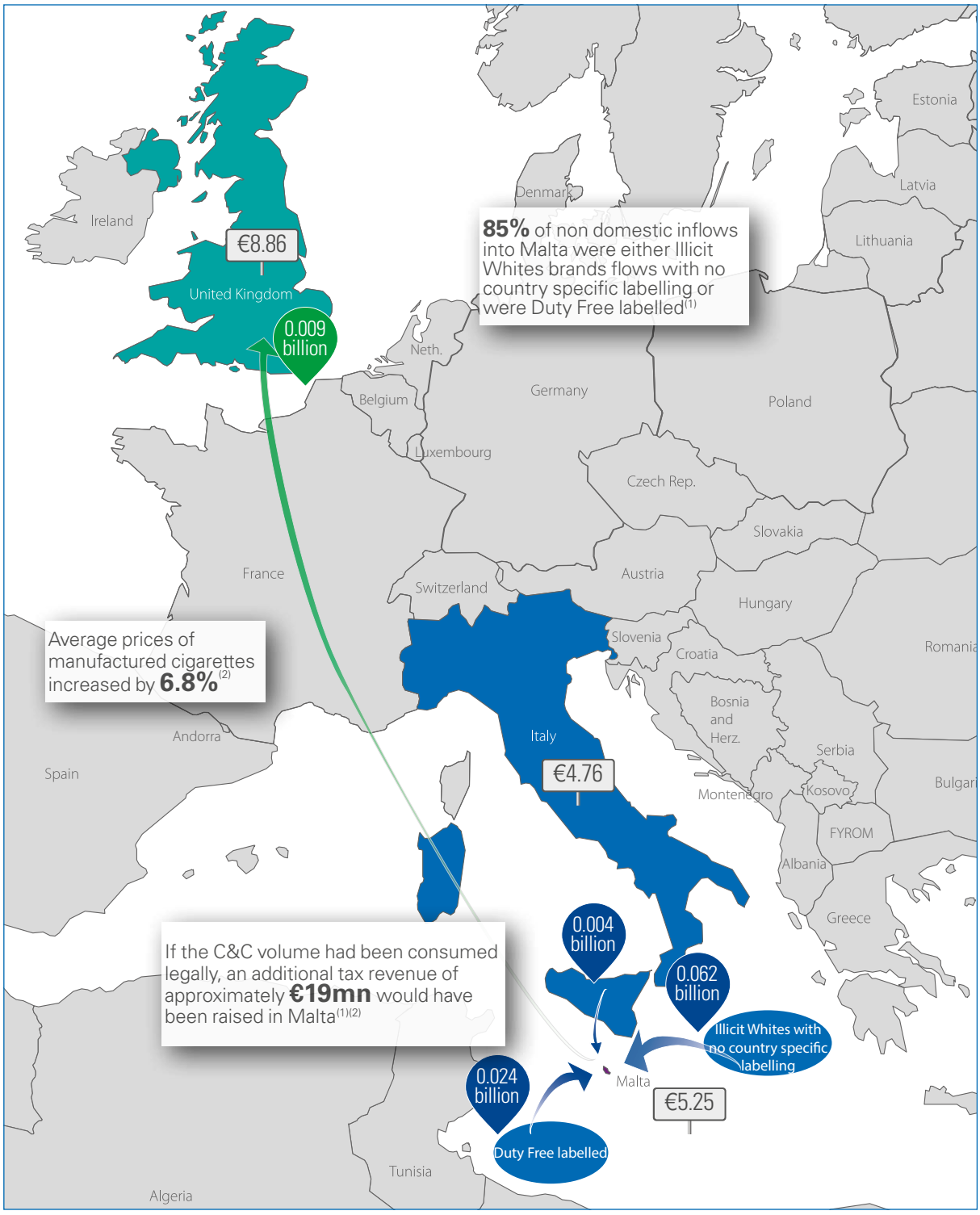
Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2012-2016



Manufactured cigarette consumption – 2012-2016



Key inflows and outflows



Note: *(a) Map shows major flows. Countries which are both source and destination are coded according to the larger flow*

Sources: *(1) KPMG EU Flows Model (2) EC Excise Duty tables, January 2017 (Part III – Manufactured Tobacco) and analysis of data sources provided by manufacturers*

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2012-2016[1][2][a]

TOTAL MALTA CONSUMPTION						
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**	**2015-16 %**
Legal domestic sales (LDS)	0.505	0.463	0.474	0.468	0.457	(2%)
Outflows	-0.071	-0.064	-0.039	-0.053	-0.033	(38%)
Legal domestic consumption (LDC)	0.434	0.399	0.435	0.415	0.424	2%
Non-domestic legal (ND(L))	0.007	0.005	0.011	0.007	0.010	42%
Counterfeit and contraband (C&C)	0.061	0.068	0.038	0.048	0.091	87%
Total non-domestic	0.068	0.073	0.048	0.056	0.101	81%
Total consumption	**0.502**	**0.472**	**0.483**	**0.471**	**0.525**	**12%**

- An increase in flows of Illicit Whites brands with no country specific labelling such Business Royal and American Legend, and of cigarettes with Duty Free labelling led to the 81% increase non domestic consumption
  - Illicit White brands are produced with limited legal distribution and typically have no country specific labelling
  - Malta is one of the main points of entry used by smugglers and illegal migrants to enter the EU and this may explain the increase in Illicit Whites brands flows[4][5]
- Outflows were mainly to the more expensive Western European markets of UK and France
  - Average prices in January 2017 were €8.86 in the UK and €6.76 in France, compared to €5.25 in Malta

Total inflows by country of origin – 2012-2016[1][b][c]

ND INFLOWS TO MALTA					
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**
IWs with no country-specific labelling	0.037	0.035	0.000	0.028	0.062
Duty Free Labelled	0.017	0.023	0.019	0.010	0.024
Italy	0.001	0.002	0.003	0.002	0.004
Bulgaria	0.000	0.001	0.000	0.001	0.002
Ukraine	0.000	0.001	0.000	0.000	0.001
Other	0.012	0.011	0.026	0.015	0.007
Total inflows	**0.068**	**0.073**	**0.048**	**0.056**	**0.101**

Total outflows by destination country – 2012-2016[1]

OUTFLOWS FROM MALTA					
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**
UK	0.051	0.020	0.023	0.020	0.009
France	0.000	0.010	0.003	0.008	0.008
Luxembourg	0.000	0.000	0.000	0.000	0.004
Netherlands	0.002	0.011	0.002	0.004	0.003
Germany	0.005	0.005	0.001	0.000	0.003
Other	0.013	0.018	0.010	0.022	0.006
Total outflows	**0.071**	**0.064**	**0.039**	**0.053**	**0.033**

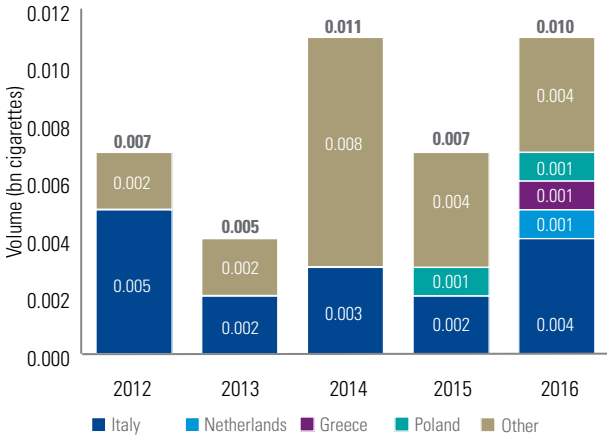
Notes: *(a) In years 2012-2016 non-domestic incidence is stated on a sticks basis; prior to this a packs basis was used (b) Illicit Whites with no country specific labelling comprise Illicit Whites labelled as "Duty free" and "Unspecified". Data from previous years reflects the same definition; please refer to the appendix for full methodology; (c) The Duty Free inflows exclude Illicit Whites which have Duty Free labelling*

Sources: *(1) KPMG EU Flows Model and analysis of data sources provided by manufacturers (2) KPMG analysis of UNWTO Factbook 2012-2015 (3) EC Excise Duty tables (Part III – Manufactured Tobacco) (4) A hub of crime and smuggling - The Malta Independent, January 2016 (5) Taking action on the Central Mediterranean route, European Commission, February 2017*

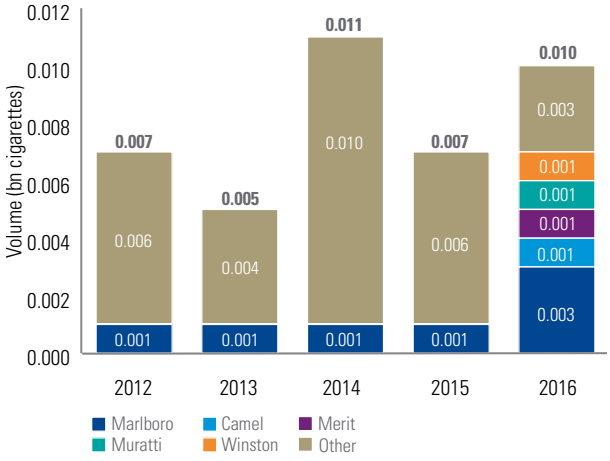
ND(L) and C&C flows

- ND(L) increased by 42%, mainly from Italy, as higher prices in Malta resulted in the price gap doubling to €0.49[(2)]
- C&C volumes increased by 87% in 2016 against a backdrop of a 6.8% increase in average prices in Malta
- Flows of Illicit White brands with no country specific labelling accounted for 69% C&C flows
  - Business Royal, trademark owned by Chelsea Tobacco, and American Legend, trademark owned by Karelia Tobacco, were the largest Illicit Whites brands, with their volumes almost doubling in 2016

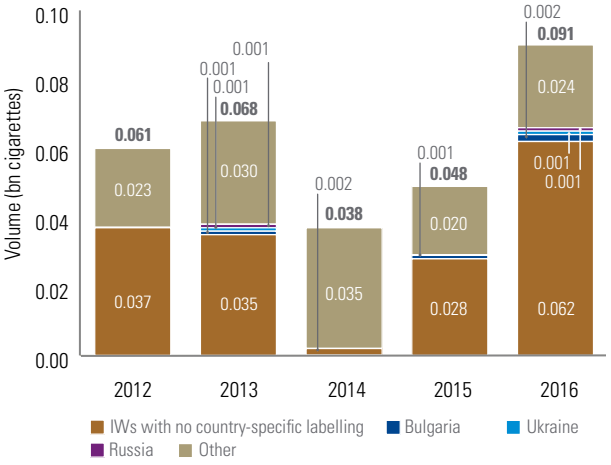
ND(L) by country of origin – 2012-2016[(1)(a)(b)]



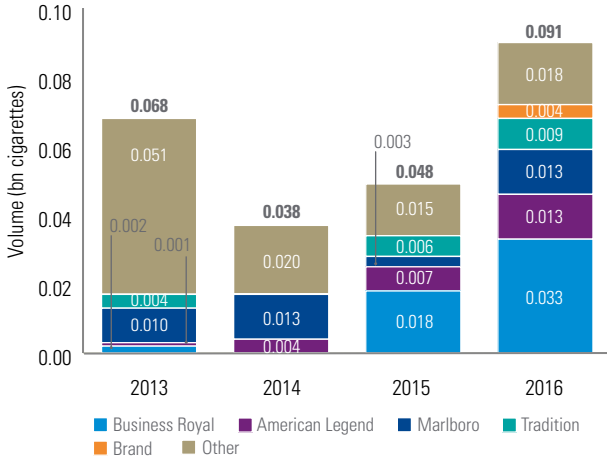
ND(L) by brand – 2012-2016[(1)(a)(b)]



C&C by country of origin – 2012-2016[(1)(a)]



C&C by brand – 2013-2016[(1)(a)(c)]



Notes: *(a) KPMG calculates the split between C&C and ND(L) by calculating the ND(L) volumes and subtracting from the total inflows (b) In years 2014-2016 the ND(L) analysis was undertaken using border crossings and regional sales data provided by manufacturers; detail surrounding methodology changes is provided in the appendix (c) Additional information about the process for identifying Illicit Whites is provided in the appendix*

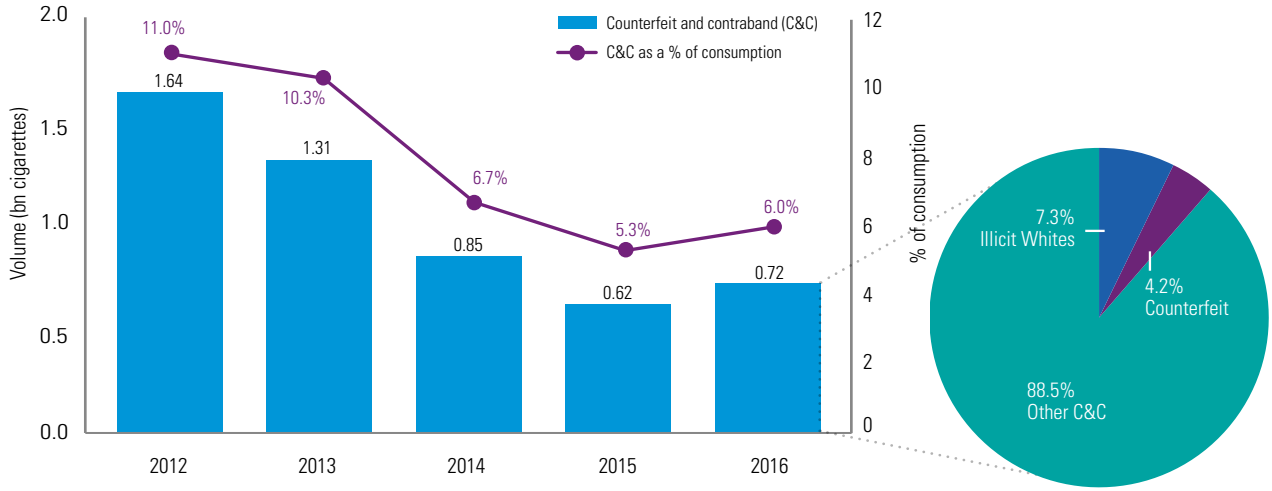
Sources: *(1) KPMG EU flows model and analysis of data sources provided by manufacturers (2) KPMG analysis of UNWTO Factbook 2012-2015*

Netherlands

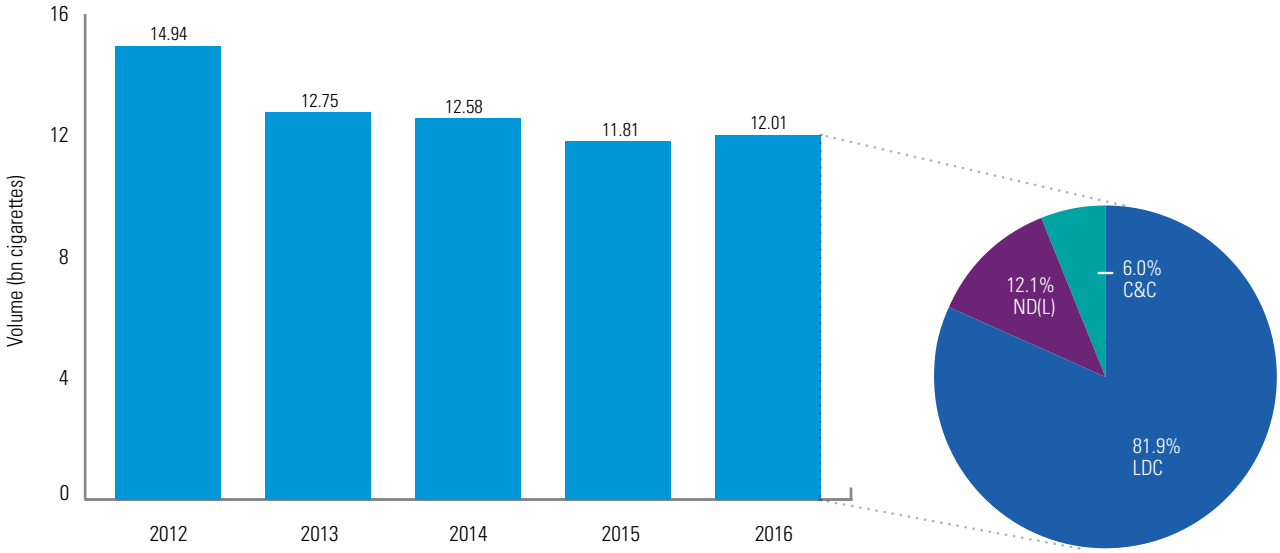
Overview

- C&C volumes increased from 0.62 billion to 0.72 billion reversing previous declines, representing 6.0% of total consumption
  - Counterfeit as a share of total C&C consumption doubled to 4.2%
- C&C flows were predominantly from Eastern-EU countries
- Legal domestic consumption was stable against a backdrop of improving economic conditions

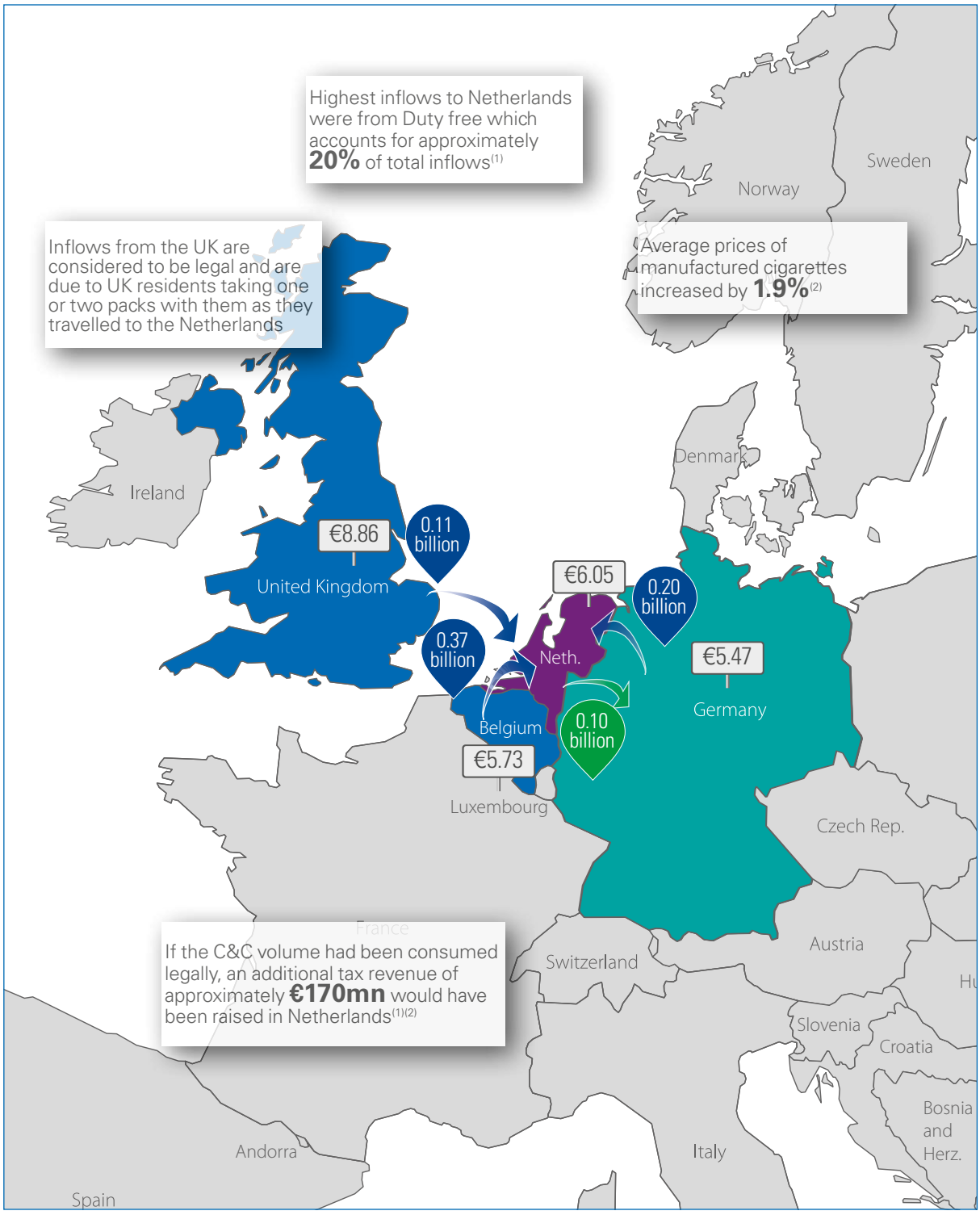
Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2012-2016



Manufactured cigarette consumption – 2012-2016



Key inflows and outflows



Note: *(a) Map shows major flows. Countries which are both source and destination countries are coded according to the larger flow*

Sources: *(1) KPMG EU Flows Model and analysis of data sources provided by manufacturers (2) EC Excise Duty tables, January 2017 (Part III – Manufactured Tobacco*

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2012-2016[1][2][a]

TOTAL NETHERLANDS CONSUMPTION						
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**	**2015-16 %**
Legal domestic sales (LDS)	12.05	10.25	10.24	9.97	10.14	2%
Outflows	-0.29	-0.36	-0.32	-0.38	-0.30	(21%)
Legal domestic consumption (LDC)	11.75	9.89	9.92	9.59	9.84	3%
Non-domestic legal (ND(L))	1.55	1.54	1.81	1.60	1.45	(9%)
Counterfeit and contraband (C&C)	1.64	1.31	0.85	0.62	0.72	17%
Total non-domestic	3.19	2.85	2.66	2.22	2.17	(2%)
Total consumption	**14.94**	**12.75**	**12.58**	**11.81**	**12.01**	**2%**

- ND(L) continued to decline as total journeys into the Netherlands declined by 1.5%[3]
- Duty Free labelled continued to be the highest inflow to the Netherlands, reflecting incoming travels flows[4]
- Outflows to Germany increased following increasing travel flows between the two countries[4]

Total inflows by country of origin – 2012-2016[1][b][c]

ND INFLOWS TO NETHERLANDS					
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**
Duty Free labelled	0.65	0.55	0.52	0.43	0.43
Belgium	0.32	0.38	0.28	0.29	0.37
Germany	0.33	0.33	0.36	0.27	0.20
UK	0.15	0.14	0.16	0.16	0.11
Poland	0.13	0.09	0.09	0.05	0.09
Other	1.61	1.36	1.26	1.02	0.99
Total inflows	**3.19**	**2.85**	**2.66**	**2.22**	**2.17**

Total outflows by destination country – 2012-2016[1]

OUTFLOWS FROM NETHERLANDS					
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**
Germany	0.06	0.03	0.11	0.08	0.10
Belgium	0.04	0.17	0.08	0.10	0.06
UK	0.07	0.03	0.02	0.05	0.05
France	0.07	0.07	0.05	0.08	0.04
Ireland	0.01	0.01	0.01	0.01	0.02
Other	0.03	0.04	0.05	0.06	0.04
Total outflows	**0.29**	**0.36**	**0.32**	**0.38**	**0.30**

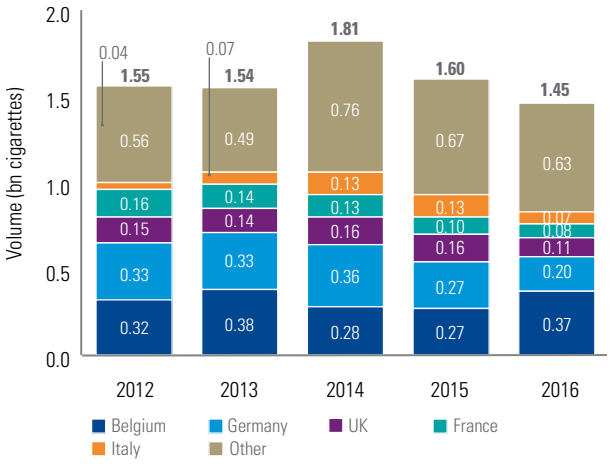
Notes: *(a) In years 2012-2016 non-domestic incidence is stated on sticks basis (b) Illicit Whites with no country specific labelling comprise Illicit Whites labelled as "Duty free" and "Unspecified". Data from previous years reflects the same definition; please refer to the appendix for full methodology (c) The Duty Free and Unspecified inflows exclude Illicit Whites which have Duty Free labelling and unspecified labelling*

Sources: *(1) KPMG EU Flows Model and analysis of data sources provided by manufacturers (2) KPMG analysis of UNWTO Factbook 2012-2015 (3) KPMG Analysis of WTO data, 2016 (4) Transport and Traffic statistics, Schiphol Telematics, 2016 (5) KPMG analysis of EC Excise Duty tables, January 2017 (Part III – Manufactured Tobacco) and data sources provided by manufacturers*

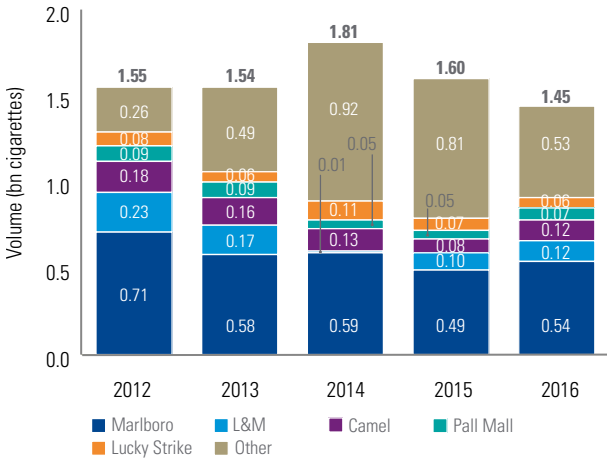
ND(L) and C&C flows

- Belgium remained the highest source of ND(L) as Dutch trips to Belgium increased
- C&C increased by 17%, driven by an increase in consumption of L&M and Pall Mall, predominantly originating from Belarus, Poland and Russia
- Flows from Belgium, Germany, France, the UK and Italy are ND(L) given the small price differences and due to the travel flows between each country

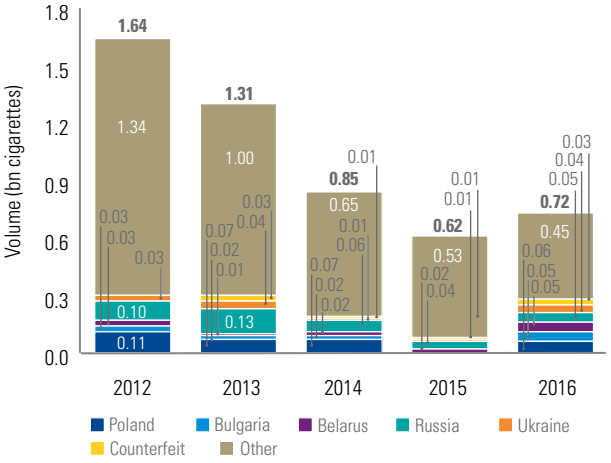
ND(L) by country of origin – 2012-2016[1][a][b]



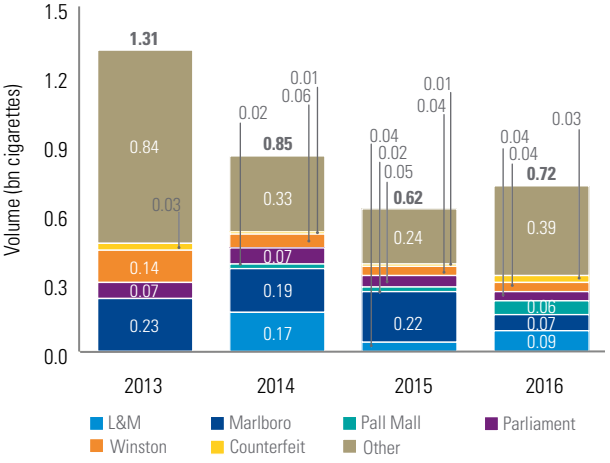
ND(L) by brand – 2012-2016[1][a][b]



C&C by country of origin – 2012-2016[1][a]



C&C by brand – 2013-2016[1][a]



Notes: *(a) KPMG calculates the split between C&C and ND(L) by calculating the ND(L) volumes and subtracting from the total inflows (b) In 2014 to 2016 the ND(L) analysis was undertaken using border crossings and regional sales data provided by manufacturers; detail surrounding methodology change is provided in the appendix*

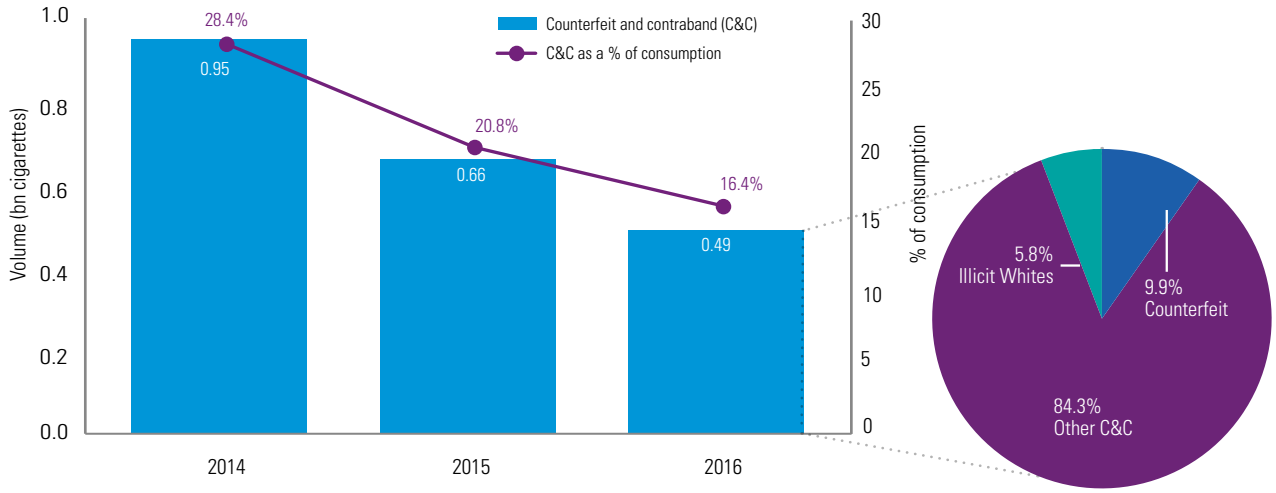
Sources: *(1) KPMG analysis of UNWTO Factbook 2012-2015, EU flows model and data sources provided by manufacturers*

Norway

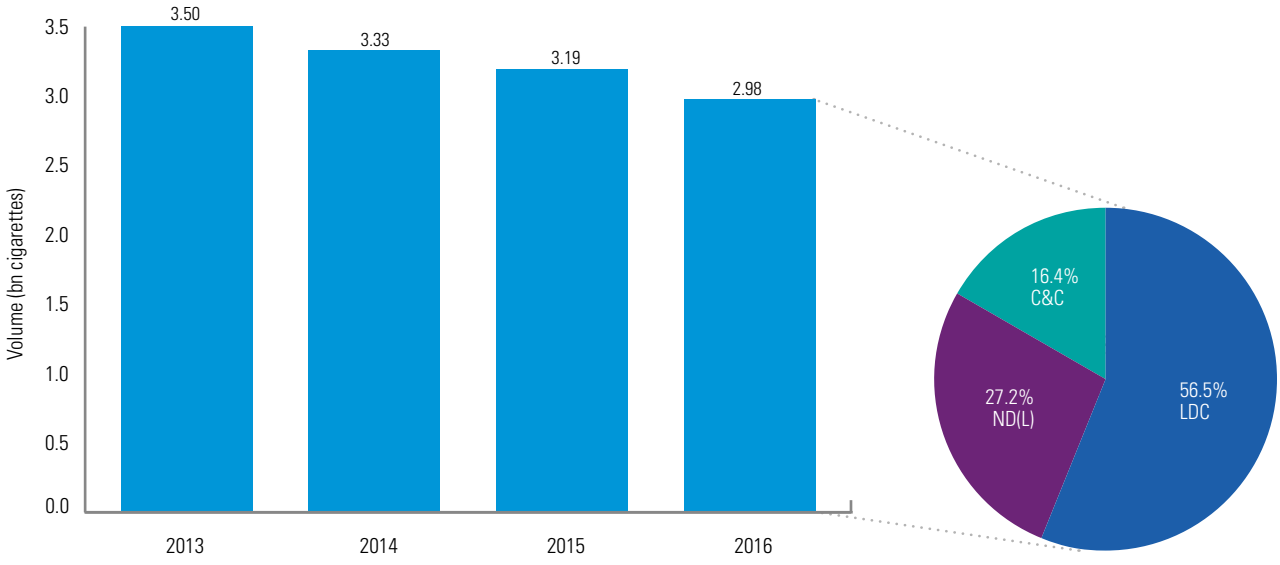
Overview

- Despite a 26% decline in illicit cigarette volumes to 0.49 billion, the share of illicit consumption remained one of the highest in Europe
- The majority of C&C came from lower-priced countries in the Eastern EU where the volume of travel between each country did not support the volume of cigarettes identified
- Non-domestic legal consumption is the highest in Europe, supported by large volumes of Norwegians travelling to lower-priced Sweden

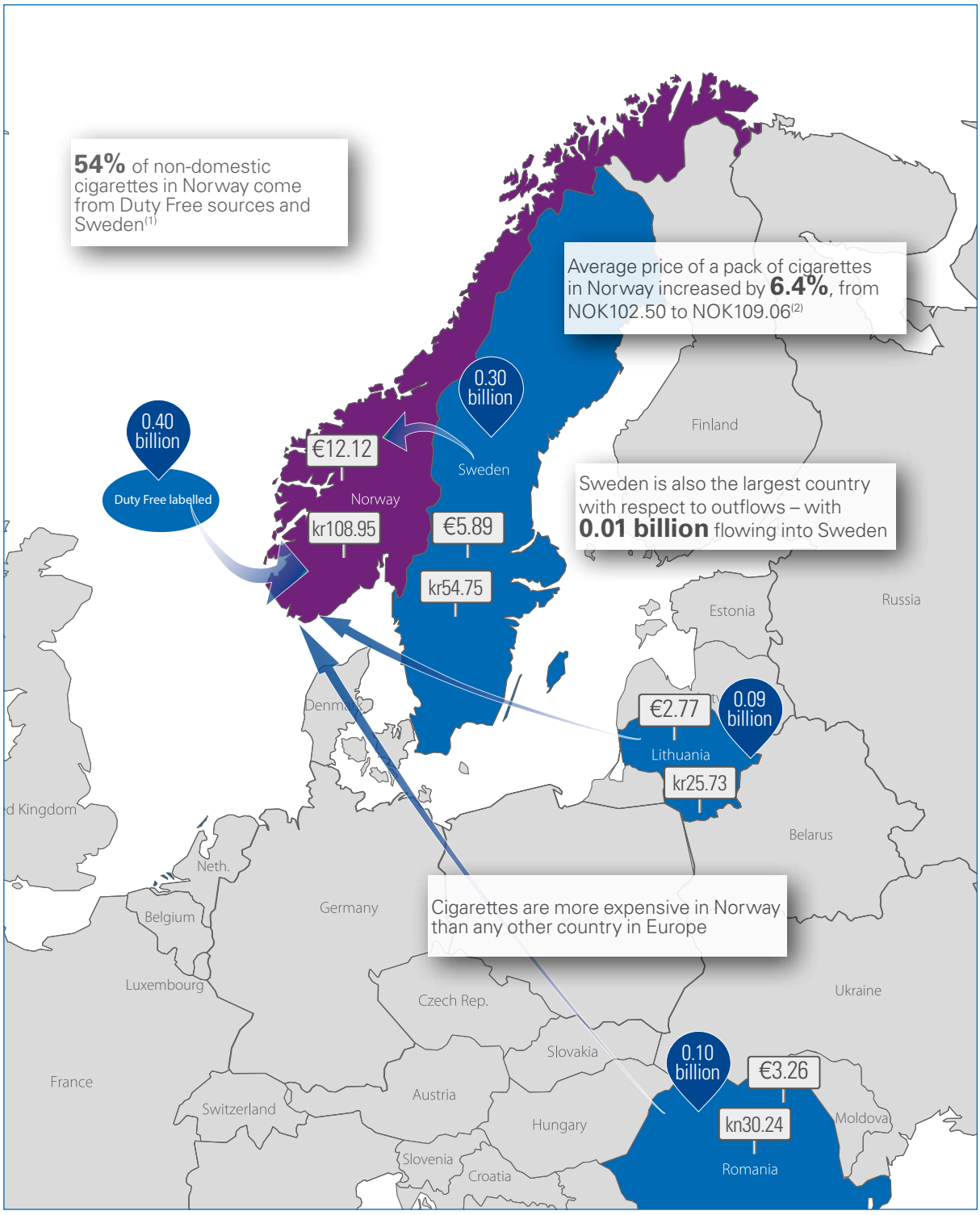
Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2014-2016



Manufactured cigarette consumption – 2013-2016



Key inflows and outflows



Note: *(a) Map shows major flows. Countries which are both source and destination countries are coded according to the larger flow*

Sources: *(1) KPMG EU Flows Model and analysis of data sources provided by manufacturers (2) EC Excise Duty tables (Part III – Manufactured Tobacco)*

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2013-2016[1][2][a]

TOTAL NORWAY CONSUMPTION					
Billion cigarettes	**2013**	**2014**	**2015**	**2016**	**2015-16 %**
Legal domestic sales (LDS)	1.83	1.79	1.77	1.72	(3%)
Outflows	-0.05	-0.03	-0.05	-0.04	(29%)
Legal domestic consumption (LDC)	1.78	1.76	1.73	1.69	(2%)
Non-domestic legal (ND(L))		0.63	0.80	0.81	1%
Counterfeit and contraband (C&C)		0.95	0.66	0.49	(26%)
Total non-domestic	1.72	1.57	1.46	1.30	(11%)
Total consumption	**3.50**	**3.33**	**3.19**	**2.98**	**(7%)**

- Total consumption declined by 7%, as non-domestic and legal domestic consumption both declined, potentially against a backdrop of an increase in Snus consumption, a Swedish indigenous raw tobacco product[4]
- The largest inflow volumes were from Duty Free labelled cigarettes and from Sweden, where the average price of a packet of 20 cigarettes is €6.23 lower compared to Norway[3]
  - Duty Free inflows account for a higher proportion of non-domestic consumption in Norway compared with countries within the EU
  - All international travellers are entitled to a Duty Free allowance of 200 cigarettes when entering Norway from any country

Total inflows by country of origin – 2013-2016[1][b][c]

ND INFLOWS TO NORWAY				
Billion cigarettes	**2013**	**2014**	**2015**	**2016**
Duty Free Labelled	0.50	0.45	0.41	0.40
Sweden	0.26	0.27	0.37	0.30
Romania	0.14	0.19	0.06	0.10
Lithuania		0.02	0.13	0.09
Poland	0.40	0.31	0.09	0.07
Other	0.42	0.34	0.39	0.33
Total inflows	**1.72**	**1.57**	**1.46**	**1.30**

Total outflows by destination country – 2013-2016[1]

OUTFLOWS FROM NORWAY				
Billion cigarettes	**2013**	**2014**	**2015**	**2016**
Sweden	0.00	0.00	0.00	0.01
UK	0.01	0.00	0.01	0.01
Poland	0.00	0.00	0.00	0.00
Netherlands	0.01	0.02	0.01	0.00
Ireland	0.00	0.00	0.00	0.00
Other	0.02	0.01	0.02	0.01
Total outflows	**0.05**	**0.03**	**0.05**	**0.04**

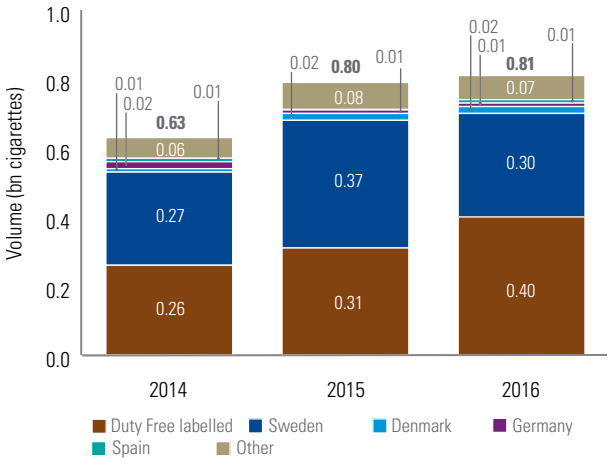
Notes: *(a) In years 2013-2016 non-domestic incidence is stated on sticks basis (b) Illicit Whites with no country specific labelling comprise Illicit Whites labelled as "Duty free" and "Unspecified". Data from previous years reflects the same definition; please refer to the appendix for full methodology (c) The Duty Free and Unspecified inflows exclude Illicit Whites which have Duty Free labelling and unspecified labelling except for 2013 values*

Sources: *(1) KPMG EU Flows Model and analysis of data sources provided by manufacturers (2) KPMG analysis of UNWTO Factbook 2012-2015 (3) KPMG analysis of EC Excise Duty tables, January 2017 (Part III – Manufactured Tobacco) and data sources provided by manufacturers (4) Smoking and tobacco consumption in Norway – summary, Norwegian Institute of Public Health*

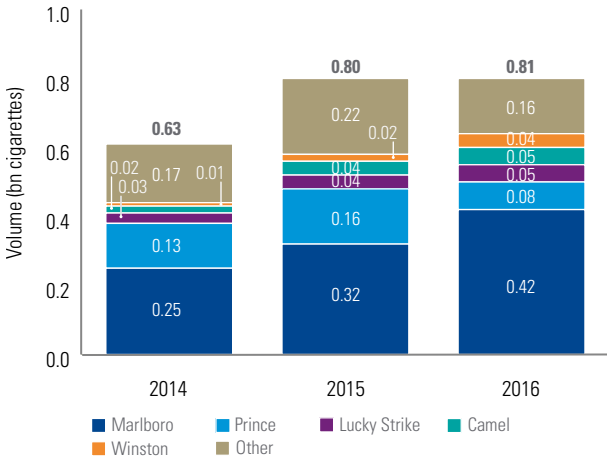
ND(L) and C&C flows

- Whilst the non-domestic share of consumption remained the highest in Europe at 43% compared to 46% in 2015, the split between non-domestic legal and C&C continued to decline
  - Non-domestic legal flows increased to 62% of total non-domestic inflows in 2016, compared to 40% recorded in 2014, as consumers took advantage of lower prices in the neighbouring EU countries, particularly Sweden
  - This increase was offset by declining C&C volumes from the lower priced Eastern European countries of Lithuania and Poland
    - Poles and Lithuanians made up the two largest group of immigrants in Norway in 2016 (97,200 Polish born and 37,600 Lithuanian-born), the flows of cigarettes identified from these countries in 2016 were not supported by the travel movements between each country. As a result, the majority of the volume was C&C[2]

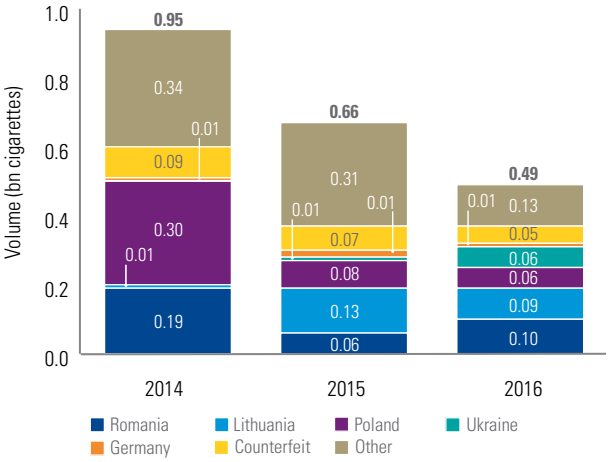
ND(L) by country of origin – 2014-2016[1](a)(b)(c)



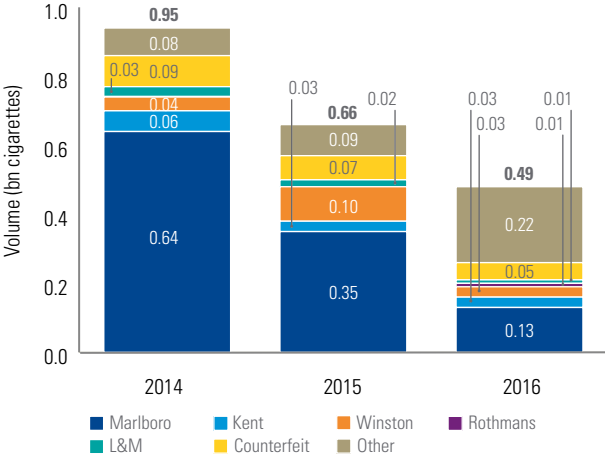
ND(L) by brand – 2014-2016[1](a)(b)(c)



C&C by country of origin – 2014-2016[1](a)(c)



C&C by brand – 2014-2016[1](a)(c)



Notes: *(a) KPMG calculates the split between C&C and ND(L) by calculating the ND(L) volumes and subtracting from the total inflows (b) For the years 2014-2016 the ND(L) analysis was undertaken using border crossings and regional sales data provided by manufacturers; detail surrounding methodology changes is provided in the appendix (c) As Norway has been included in the study for the first time in 2014, there are no prior figures for comparison in the charts*

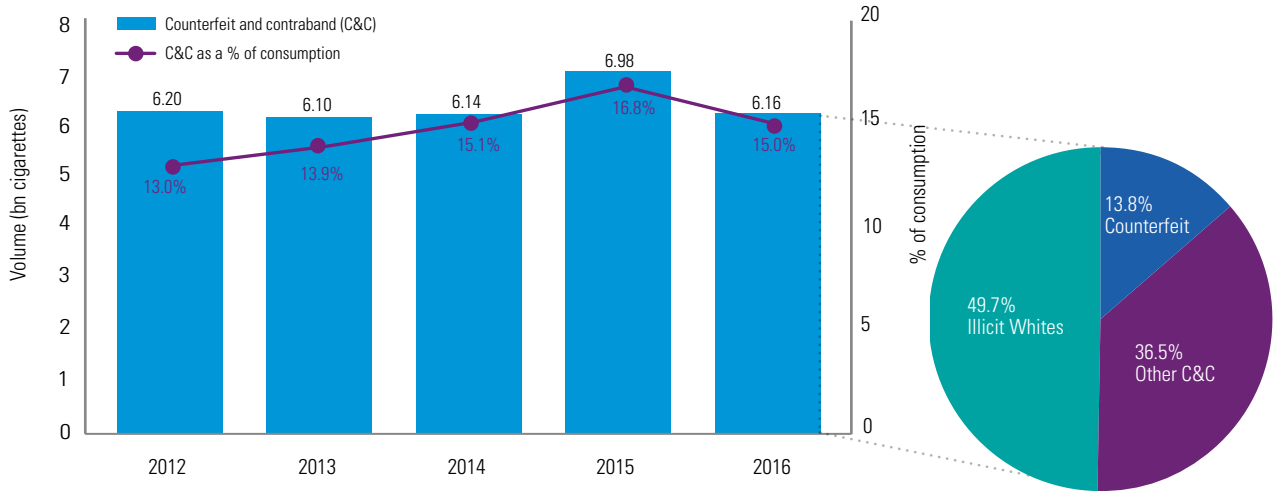
Sources: *(1) KPMG analysis of UNWTO Factbook 2012-2015, EU flows model and data sources provided by manufacturers (2) Norwegian Statistical Office*

Poland

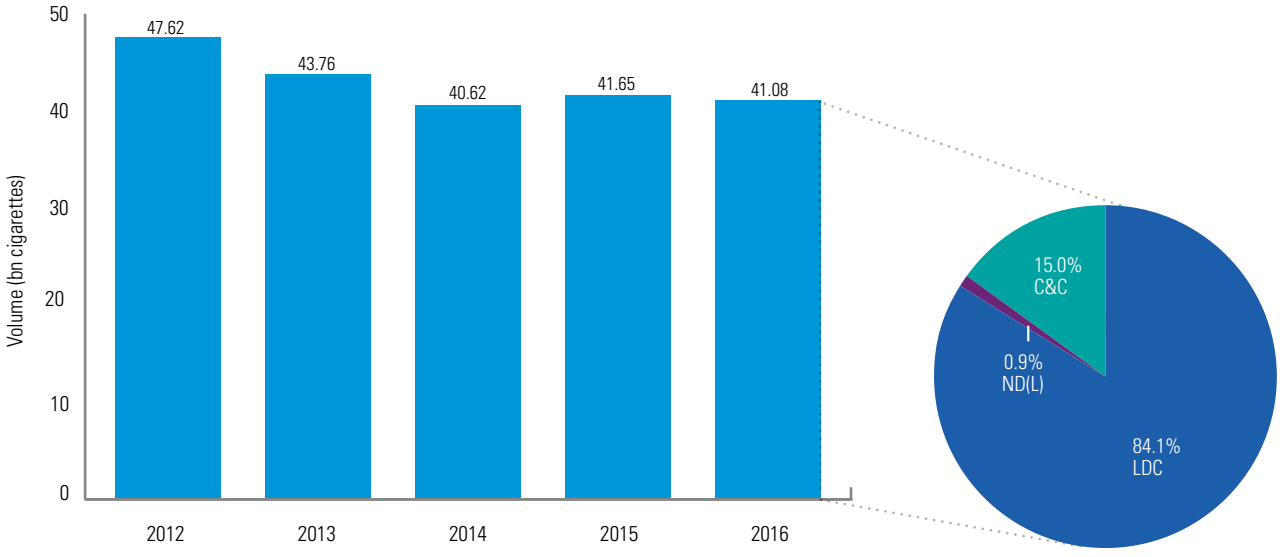
Overview

- C&C decreased to 15% of total consumption in 2016, against a backdrop of increased regulation and additional law enforcement
- C&C in Poland mainly comprised cigarettes from the lower priced non-EU countries of Belarus and Ukraine and Illicit Whites brand flows
- Whilst over a third of total C&C cigarettes consumed in Poland had Belarusian labelling, C&C inflows from Belarus declined by 0.6 billion cigarettes in 2016
- Legal domestic sales remained stable whilst total non domestic consumption decreased against a background of limited price increases and stable excise tax[1]

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2012-2016

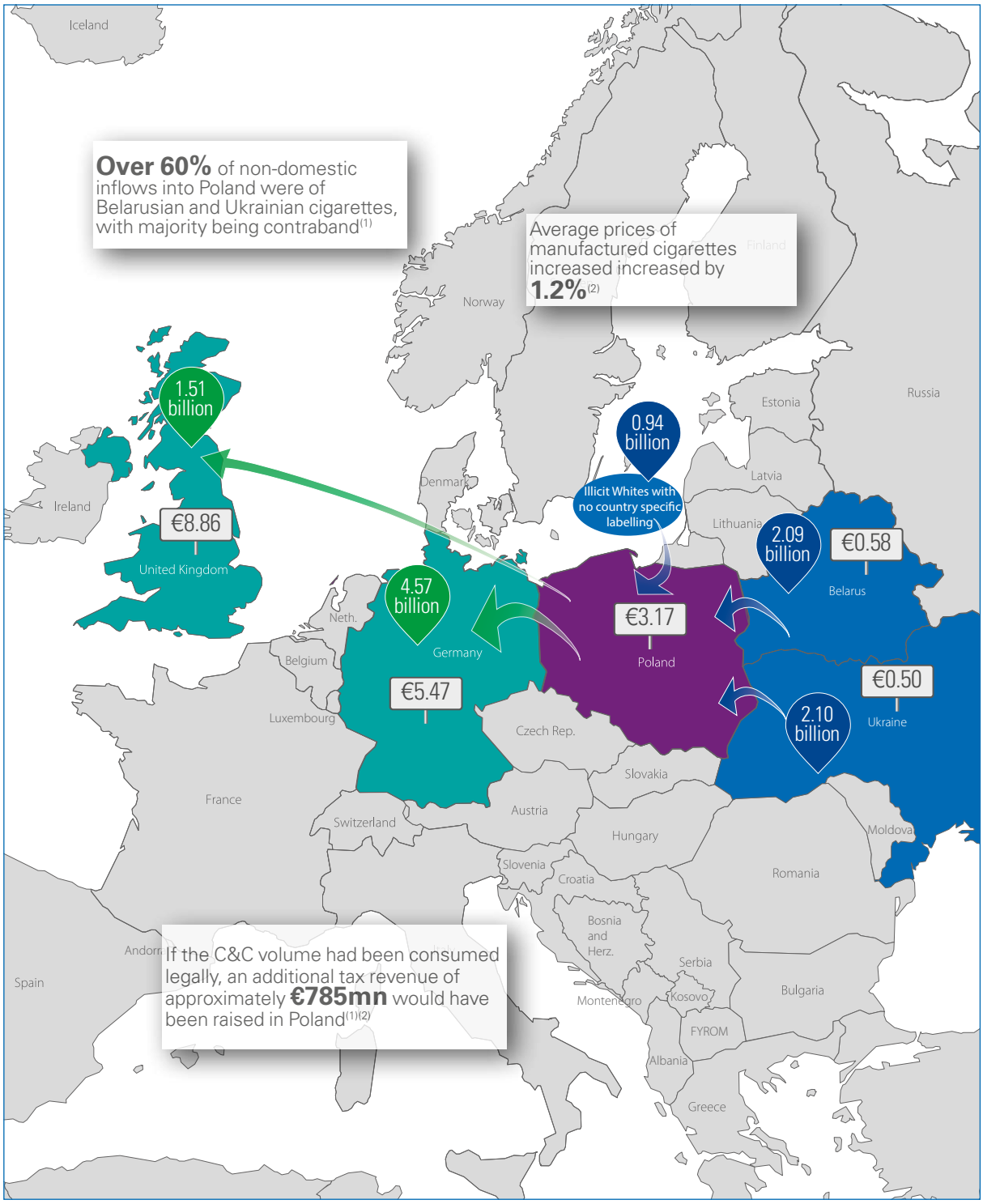


Manufactured cigarette consumption – 2012-2016



Source: *(1) KPMG analysis of EC Excise Duty tables, January 2016 (Part III – Manufactured Tobacco) and data sources provided by manufacturers*

Key inflows and outflows



Note: *(a) Map shows major flows. Countries which are both source and destination countries are coded according to the larger flow*

Sources: *(1) KPMG EU Flows Model and analysis of data sources provided by manufacturers (2) EC Excise Duty tables (Part III – Manufactured Tobacco)*

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2012-2016[1][2][a]

TOTAL POLAND CONSUMPTION						
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**	**2015-16 %**
Legal domestic sales (LDS)	52.15	46.63	42.00	41.20	41.33	0%
Outflows	-11.36	-9.39	-7.95	-6.97	-6.78	(3%)
Legal domestic consumption (LDC)	40.79	37.24	34.05	34.23	34.56	1%
Non-domestic legal (ND(L))	0.63	0.43	0.42	0.44	0.37	(16%)
Counterfeit and contraband (C&C)	6.20	6.10	6.14	6.98	6.16	(12%)
Total non-domestic	6.83	6.52	6.56	7.42	6.53	(12%)
Total consumption	**47.62**	**43.76**	**40.62**	**41.65**	**41.08**	**(1%)**

- Legal domestic consumption remained stable whilst non-domestic cigarette consumption declined
- The main inflow volumes were from Ukraine, Belarus and Illicit White brands with no country specific labelling
  - Non domestic inflows from Ukraine, where cigarettes are 82% cheaper than Poland (€0.50 compared to €3.17), increased by approximately 57%. This may be accounted for by the growing numbers of Ukrainian citizens permitted to work in Poland; in 2016 approximately a million Ukrainians were estimated to be working in Poland[3][4]
  - Inflows from Belarus were, however, 22% lower reflecting the increased border control measures introduced in 2016 such as the deployment of x-ray scanners[5] and the narrowing price gap between the two countries
- Poland continues to be amongst the largest outflow markets in the EU, reflecting lower prices and high volumes of Polish citizens working abroad

Total inflows by country of origin – 2012-2016[1][b][c]

ND INFLOWS TO POLAND					
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2015**
Ukraine	1.07	0.30	0.14	1.34	2.10
Belarus	3.52	2.97	3.15	2.68	2.09
IWs with no country-specific labelling	0.48	1.04	1.25	1.46	0.94
Counterfeit		1.14	0.95	0.85	0.85
Duty Free Labelled	0.28	0.22	0.26	0.35	0.23
Other	1.49	0.85	0.82	0.74	0.32
Total inflows	**6.83**	**6.52**	**6.56**	**7.42**	**6.53**

Total outflows by destination country – 2012-2016[1]

OUTFLOWS FROM POLAND					
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**
Germany	8.54	7.54	5.67	4.79	4.57
UK	1.72	0.89	1.23	1.38	1.51
France	0.31	0.32	0.24	0.19	0.14
Ireland	0.19	0.16	0.11	0.12	0.11
Netherlands	0.13	0.09	0.09	0.05	0.09
Other	0.46	0.38	0.62	0.43	0.35
Total Outflows	**11.36**	**9.39**	**7.95**	**6.97**	**6.78**

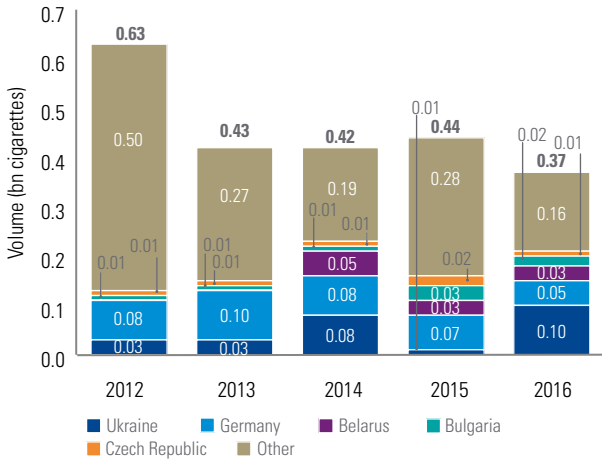
Notes: *(a) labelling comprise Illicit Whites labelled as "Duty free" and "Unspecified". Data from previous years reflects the same definition; please refer to the appendix for full methodology (c) The Duty Free and Unspecified inflows exclude Illicit Whites which have Duty Free labelling and unspecified labelling*

Sources: *(1) KPMG EU Flows Model and analysis of data sources provided by manufacturers (2) KPMG analysis of UNWTO Factbook 2012-2015 (3) KPMG analysis of EC Excise Duty tables, January 2017 (Part III – Manufactured Tobacco) and data sources provided by manufacturers (4) Millions of Ukrainians in Poland: Who are Where do they work?, Polityka, June 2016 (5) Modern Scanner At The Border. Gift Of The Day Of The Customs Service, Lublin, September 2016*

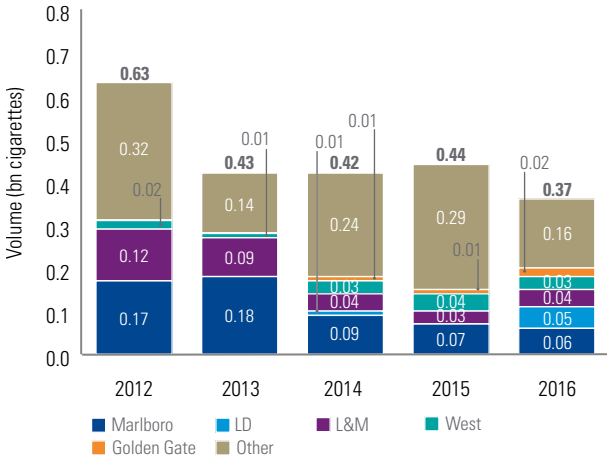
ND(L) and C&C flows

- C&C decreased by 0.82 billion cigarettes in 2016 against a backdrop of increased regulation and law enforcement
  - In the beginning of 2016, the Polish Government amended the act on excise tax increasing the obligations of intermediaries in the tobacco trade, which resulted in the reduction of number of tobacco traders, from approximately 350 in 2015 to 15 by the end of the year[3][4]
  - In addition border security was tightened along the Belarusian border and local border traffic between Kaliningrad region (Russia) and Poland was closed[5]
  - As a result reduced flows of cigarettes from Belarus and Russia and Illicit Whites brands such as NZ and Jin Ling were recorded in 2016
    - C&C from Belarus declined to 33% of total consumption in 2016 from a high of 57% recorded in 2012; a decrease in the flow of Illicit White brand Fest resulted in a decline of 0.2 billion sticks
    - The decline in C&C flows from Belarus and Russia was offset by an increase in C&C flows from Ukraine, including approximately 1 billion of LD, where the weighted average price of a pack of 20 cigarettes was €0.50 in January 2017[2]

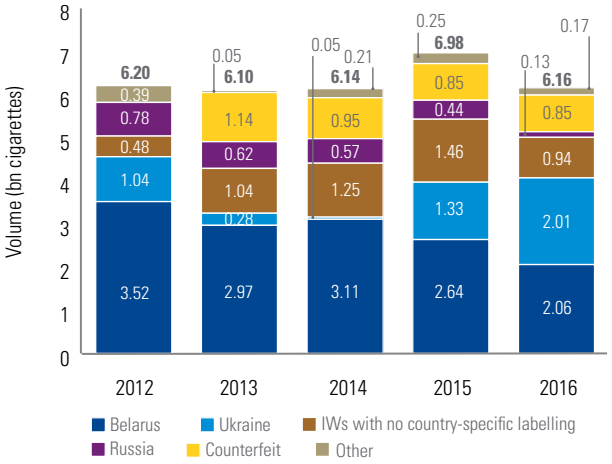
ND(L) by country of origin – 2012-2016[1][a][b]



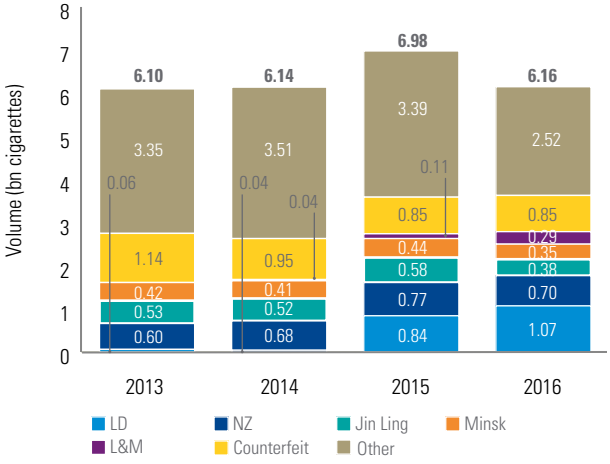
ND(L) by brand – 2012-2016[1][a][b]



C&C by country of origin – 2012-2016[1][a]



C&C by brand – 2013-2016[1][a]



Notes: *(a) KPMG calculates the split between C&C and ND(L) by calculating the ND(L) volumes and subtracting from the total inflows (b) In years 2014-2016 the ND(L) analysis was undertaken using border crossings and regional sales data provided by manufacturers; detail surrounding methodology changes is provided in the appendix (c) Additional information about the process for identifying Illicit Whites is provided in the appendix*

Sources: *(1) KPMG analysis of UNWTO Factbook 2012-2015, EU flows model and data sources provided by manufacturers (2) Weighted averaged price calculated for a pack of 20 cigarettes using EC Excise Duty tables (Part II - Manufactured Tobacco), January 2017 and data sources provided by manufacturers (3) The Republic of Poland Ministry of Finance, April 2016 (4) Intermediate Tobacco Entities for 2016-12-14, Ministry of Finance (5) The government abolished the small border traffic with Kaliningrad, wyborcza.pl, August 2016*

RUSI Analysis: Organised Crime and the Illicit Cigarette Trade in Poland

The following analysis is based on RUSI fieldwork completed in 2015-16

Groups

Nationally and internationally, Polish OCGs have a reputation for being quick to identify new opportunities, adaptable in their methods and able rapidly to diversify their portfolios as profits dictate. **Many groups trade in cigarettes alongside other low-risk products** such as illicit fuel and alcohol, based on what is most lucrative at any one time. A telling example is the case of an illicit cigarette factory uncovered at the site of a former illicit alcohol factory; both were run by the same OCG, with products distributed via the same network.(1)

As elsewhere, **the OCGs involved appear less reliant on traditional hierarchical structures**. Instead, they operate a much more flexible system that reflects legitimate business service models. Membership is often fluid and profit-making opportunities incentivise cooperation rather than competition.

Significantly, authorities have seen **a growing number of international groups operating in Poland**, which cooperate with counterparts abroad. In some cases, a labour force of 'technicians' and experts in C&C manufacturing are brought in from abroad on a contractual basis. Arrangements of this kind are fluid, lasting only as long as a particular venture remains profitable. They can also reduce the risk to local OCGs where new arrivals are unknown to authorities.

Routes

Poland's location between source countries to the east – Russia (Kaliningrad), Lithuania, Ukraine and Belarus, in particular – and destination markets to the west, makes it a significant transit country for C&C. Illicit whites commonly **move into Poland via 'ant smuggling' or by truck from Lithuania, Belarus and Ukraine**, across both EU and non-EU land borders.

A non-EU state, **Belarus has historically been the main source of C&C, yet this is often smuggled into other EU states first, notably Lithuania**. OCGs then exploit free movement in the Schengen Area to enter Poland. In doing so, they avoiding stronger controls and new x-ray equipment at Poland's EU external border, where on average 35% of incoming trucks are now scanned. By contrast, at the Lithuanian border, Schengen rules limit enforcement action; no more than 5% of vehicles can be stopped and searched.

Poland's **Baltic Sea ports are used to import C&C from countries further afield**, particularly from China and parts of Southeast Asia. In July 2016, authorities seized 26 million counterfeit cigarettes in the port of Gdansk in three containers from Malaysia. Again, such C&C is often destined for more lucrative foreign markets, particularly the UK and Germany.

In onward transportation to these locations, OCGs often rely on coordinated 'ant smuggling'. Anecdotally, it is thought that over half of the cigarettes **transiting to the UK do so with 'mules' on low-cost flights**. Some travel up to twice a week, legally taking 800 sticks per trip, and selling them on at a profit.

Sources: (1) Jeffray, 'On Tap Europe: Organised Crime and Illicit Trade in Poland'.

RUSI Analysis: Organised Crime and the Illicit Cigarette Trade in Poland (cont.)

Methods

By land, **'little-and-often' trafficking operations allow OCGs to fly under the radar of law enforcement** and minimise losses when detected. This 'fragmentation' of smuggling has seen seizure numbers rise, but cigarette numbers per seizure decline.

C&C is concealed with legal goods; a string of seizures in 2015 at Budzisko, near the Lithuanian border, revealed C&C hidden among furniture and bridge components, among other goods. **The internet, mail and courier services are also used** as part of such high-frequency, low-volume operations, with C&C hidden in plain sight able to evade detection.

On the ground, **distribution networks are well organised and rely on street vendors in open markets**. Roles are clearly defined: vendors tout for sales, others watch for surveillance, fetch products from small storage facilities, and restock – as often as every 15 minutes – from well-guarded, larger facilities.

Meanwhile, **significant numbers of illegal factories are being detected**. In early 2015, authorities uncovered one of Poland's largest illegal factories in the Warsaw district of Wlochy. Mainly in central-western Poland, these facilities produce illicit white brands, counterfeits of legal brands and loose tobacco, and are thought to move regularly to evade detection. Distribution dictates production: OCGs will often 'sponsor' a factory and employ a 'factory manager' only once the rest of the supply chain has been established.

Outlook

Improving anti-illicit trade measures at Poland's borders are a positive development. 7,000 containers were scanned in 2012, rising to 15,000 in 2014, and set to reach 40,000 as mobile scanning vehicles become active.[2] Yet a focus on EU external borders has seen smuggling shift, particularly to the Lithuanian border. Success is also limited by a focus on low-level criminals – drivers, mules and factory hands – rather than those at higher levels.

Further impeding progress are broad **failures at judicial level to view the trade as organised crime and historically weak legislation**. However, in early 2016 a requirement was passed for all tobacco traders to hold a license; reports suggest a resulting tenfold decrease in the number of tobacco traders, from over 200 to less than 20 today.

As elsewhere, **a further issue centres on high levels of social acceptability** and the failure, amongst consumers, to view the illicit cigarette trade as a 'crime'. A related challenge concerns the acceptability of illicit loose tobacco, as OCGs look to infiltrate supply chains at source. In 2015, Transcrime estimated as much as 67% of cut tobacco consumed in Poland to have been illicit, although the scale of the illicit loose tobacco market is much harder to quantify than the illicit cigarette market.[3]

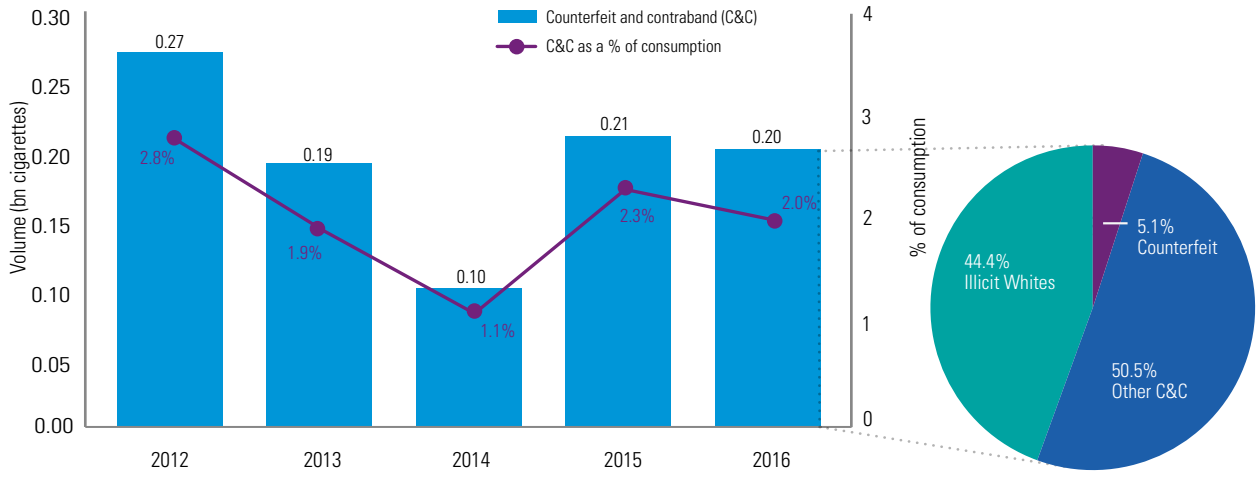
Sources: (2) Jeffray, 'On Tap Europe: Organised Crime and Illicit Trade in Poland'. (3) Transcrime, 'Bulk Tobacco Study 2015', December 2016.

Portugal

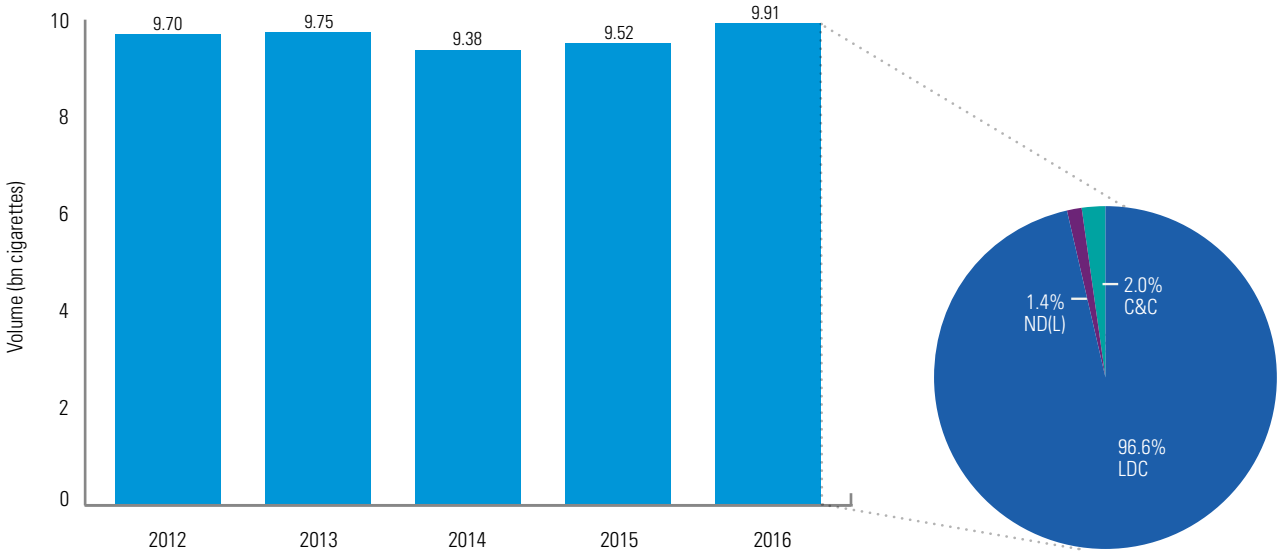
Overview

- Illicit cigarette consumption volumes remained stable at 2.0% of total consumption in 2016, one of the lowest levels in the EU
- C&C from Illicit Whites brands and from Angola accounted for 62% of total C&C volumes
- The 4% increase in consumption in Portugal was largely due to higher legal domestic sales, possibly reflecting stable prices and improved economic conditions[1]

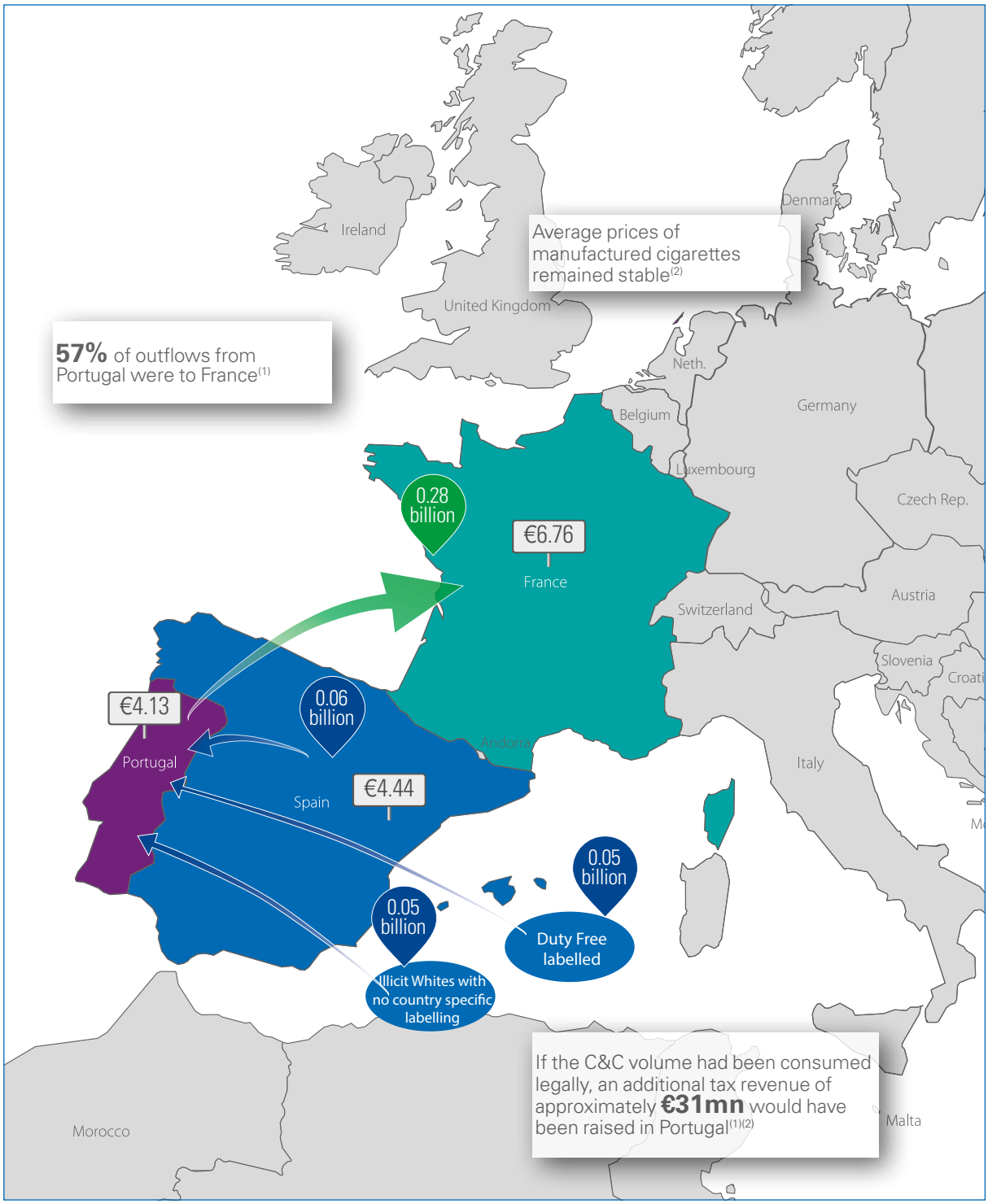
Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2012-2016



Manufactured cigarette consumption – 2012-2016



Key inflows and outflows



Note: *(a) Map shows major flows. Countries which are both source and destination countries are coded according to the larger flow*

Sources: *(1) KPMG EU Flows Model and analysis of data sources provided by manufacturers (2) EC Excise Duty tables (Part III – Manufactured Tobacco)*

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2012-2016[1][2][a]

TOTAL PORTUGAL CONSUMPTION						
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**	**2015-16 %**
Legal domestic sales (LDS)	10.13	10.04	9.56	9.77	10.06	3%
Outflows	-0.75	-0.52	-0.41	-0.60	-0.49	(18%)
Legal domestic consumption (LDC)	9.38	9.52	9.15	9.18	9.57	4%
Non-domestic legal (ND(L))	0.05	0.03	0.13	0.13	0.14	8%
Counterfeit and contraband (C&C)	0.27	0.19	0.10	0.21	0.20	(7%)
Total non-domestic	0.32	0.22	0.23	0.34	0.34	(1%)
Total consumption	**9.70**	**9.75**	**9.38**	**9.52**	**9.91**	**4%**

- Overall consumption increased, driven by increased legal consumption, while non-domestic consumption remained stable
- Spain was the main source of non-domestic inflows into Portugal with volumes almost doubling in 2016. This increase can partially be attributed to travel trends; Spanish tourists to Portugal increased by 10.1% in 2016 vs. the 6.5% increase noted in 2015[2]
- Outflows from Portugal declined by 0.11 billion cigarettes, driven primarily by reduced flows to France
- France still accounted for over half of outflows, reflective of a high volume of tourist flows and cigarette prices which are 39% cheaper in Portugal[3]

Total inflows by country of origin – 2012-2016[1][b][c]

ND INFLOWS TO PORTUGAL					
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**
Spain	0.02	0.00	0.04	0.03	0.06
IWs with no country-specific labelling	0.02	0.01	0.04	0.07	0.05
Duty Free Labelled	0.06	0.07	0.04	0.05	0.05
Angola	0.00	0.01	0.00	0.07	0.04
Unspecified	0.05	0.04	0.01	0.01	0.03
Other	0.17	0.09	0.10	0.11	0.11
Total Inflows	**0.32**	**0.22**	**0.23**	**0.34**	**0.34**

Total outflows by destination country – 2012-2016[1]

OUTFLOWS FROM PORTUGAL					
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**
France	0.44	0.30	0.21	0.34	0.28
UK	0.15	0.07	0.06	0.07	0.07
Spain	0.04	0.03	0.02	0.03	0.03
Netherlands	0.03	0.03	0.04	0.03	0.02
Germany	0.03	0.03	0.02	0.04	0.02
Other	0.06	0.05	0.05	0.08	0.06
Total Outflows	**0.75**	**0.52**	**0.41**	**0.60**	**0.49**

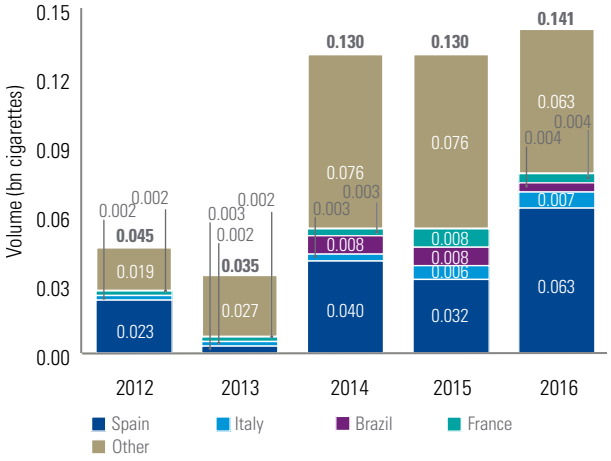
Notes: *(a) In years 2012-2016 non-domestic incidence is stated on sticks basis (b) Illicit Whites with no country specific labelling comprise Illicit Whites labelled as "Duty free" and "Unspecified". Data from previous years reflects the same definition; please refer to the appendix for full methodology (c) The Duty Free and Unspecified inflows exclude Illicit Whites which have Duty Free labelling and unspecified labelling*

Sources: *(1) KPMG EU Flows Model and analysis of data sources provided by manufacturers (2) KPMG analysis of UNWTO Factbook 2012-2015 (3) KPMG analysis of EC Excise Duty tables, January 2017 (Part III – Manufactured Tobacco) and data sources provided by manufacturers*

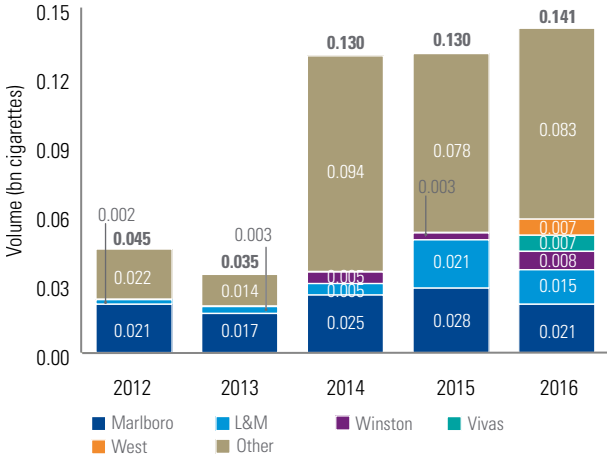
ND(L) and C&C flows

- ND(L) remained stable, with tourist flows from neighbouring Spain supporting 45% of total ND(L) volumes
- C&C also remained stable, with Illicit Whites brand flows with no country specific labelling and product with Angolan labelling accounting for approximately 44% of the total C&C
  - Jing Ling and American Legend were the largest Illicit Whites brands, whilst Chesterfield was the largest contraband brand from Angola

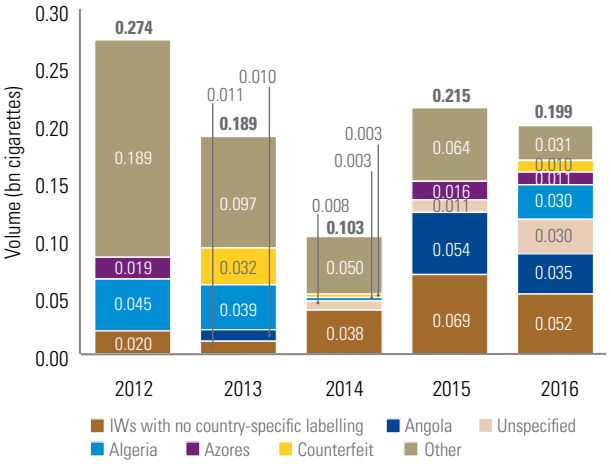
ND(L) by country of origin – 2012-2016[1](a)(b)



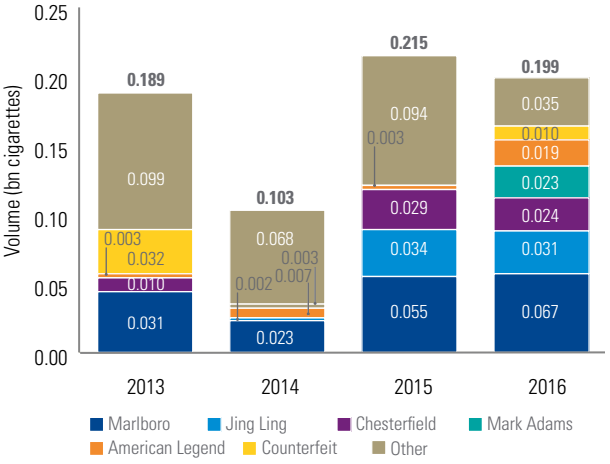
ND(L) by brand – 2012-2016[1](a)(b)



C&C by country of origin – 2012-2016[1](a)



C&C by brand – 2013-2016[1](a)



Notes: *(a) KPMG calculates the split between C&C and ND(L) by calculating the ND(L) volumes and subtracting from the total inflows*
(b) For the years 2014-2016 the ND(L) analysis was undertaken using border crossings and regional sales data provided by manufacturers; detail surrounding methodology changes is provided in the appendix

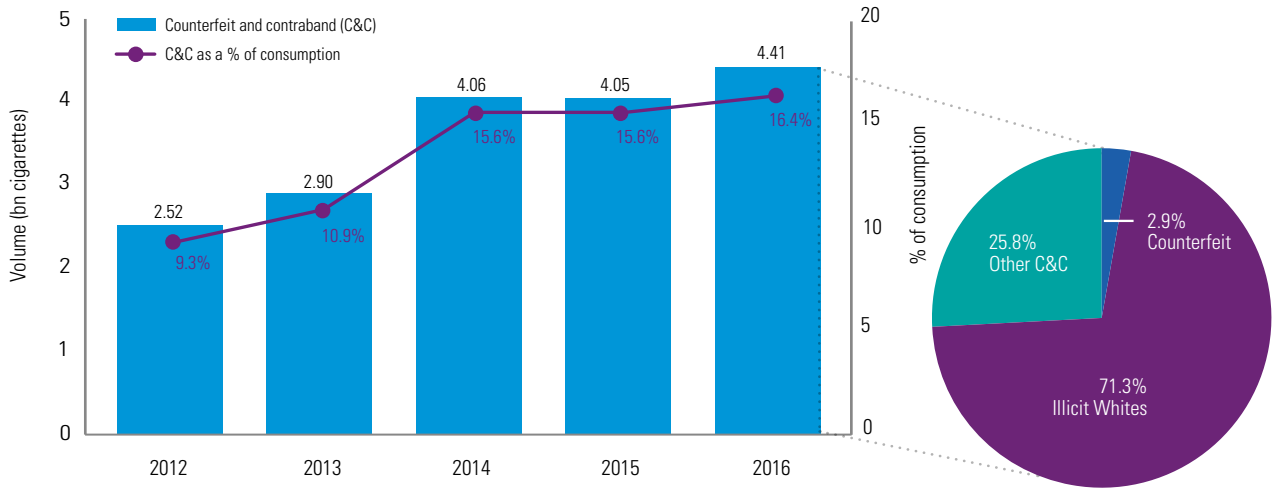
Sources: *(1) KPMG analysis of UNWTO Factbook 2012-2015, EU flows model and data sources provided by manufacturers*

Romania

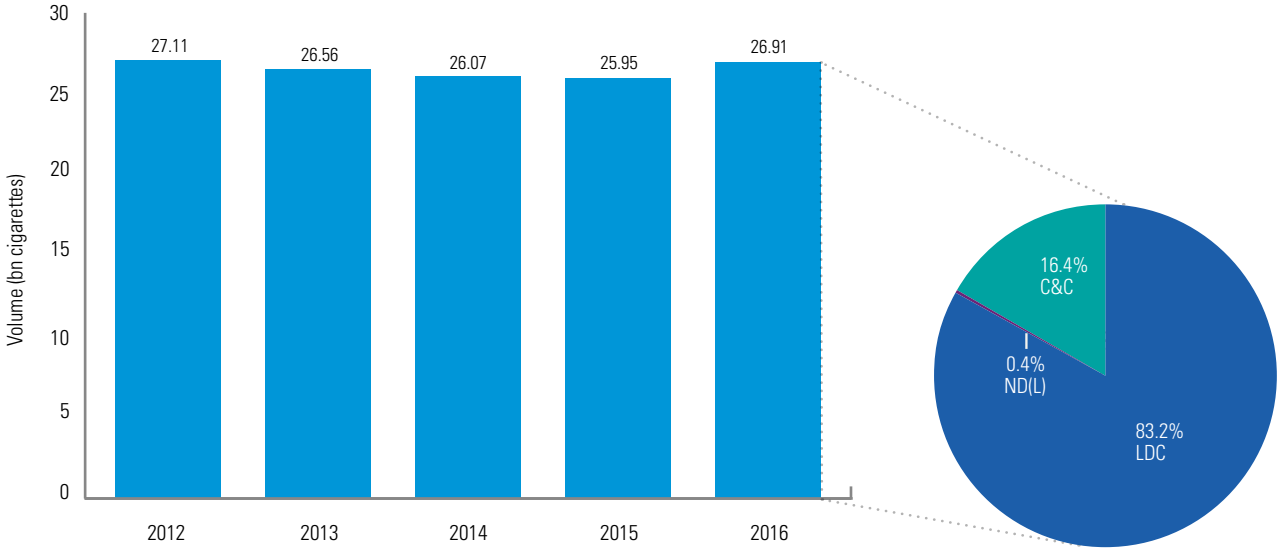
Overview

- Illicit cigarette consumption increased to 16.4% of total consumption, representing a total volume of 4.41 billion cigarettes
- The majority of C&C came from Illicit Whites brand flows and lower priced non-EU Eastern European countries such as Ukraine and Moldova
- Illicit White brands are produced with limited legal distribution and typically have no country specific labelling

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2012-2016[(a)]

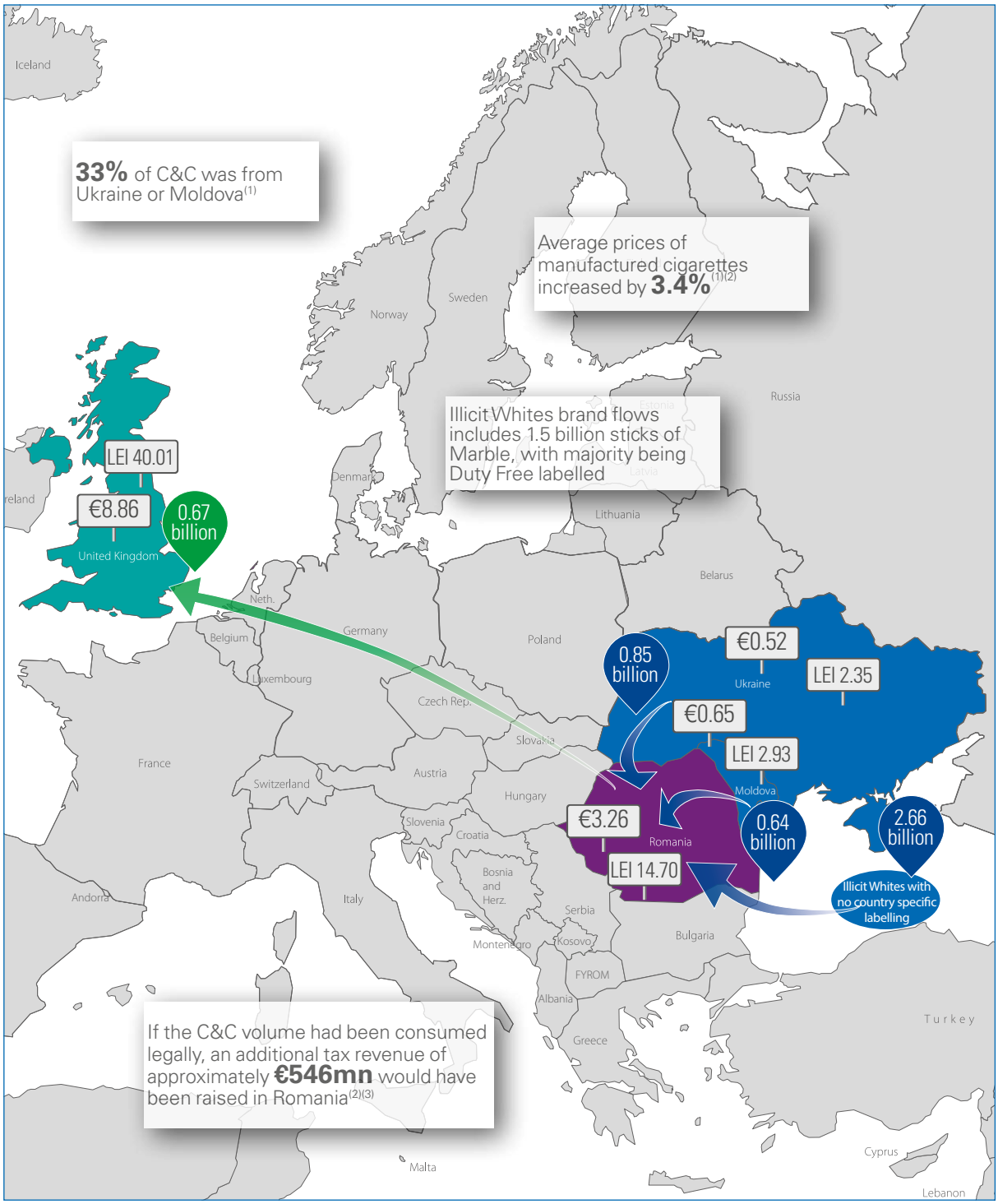


Manufactured cigarette consumption – 2012-2016[(a)]



Note: *(a) Novel pack-swap survey introduced into the methodology in 2014 and 2015; in previous years EPS was used therefore results from 2014 and 2015 are not directly comparable to earlier years. A comparison between the two methodologies can be found in the appendix*

Key inflows and outflows



Note: *(a) Map shows major flows. Countries which are both source and destination countries are coded according to the larger flow*

Sources: *(1) KPMG EU Flows Model and analysis of data sources provided by manufacturers (2) EC Excise Duty tables (Part III – Manufactured Tobacco) (3) Tax loss calculation includes both VAT and Excise duty*

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2012-2016[1][2][a]

TOTAL ROMANIA CONSUMPTION						
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**	**2015-16 %**
Legal domestic sales (LDS)	25.54	24.49	23.37	23.80	24.13	1%
Outflows	-1.33	-1.21	-1.45	-2.00	-1.73	(13%)
Legal domestic consumption (LDC)	24.21	23.28	21.92	21.80	22.40	3%
Non-domestic legal (ND(L))	0.38	0.38	0.09	0.10	0.11	7%
Counterfeit and contraband (C&C)	2.52	2.90	4.06	4.05	4.41	9%
Total non-domestic	2.90	3.27	4.15	4.15	4.51	9%
Total consumption	**27.11**	**26.56**	**26.07**	**25.95**	**26.91**	**4%**

- Total consumption increased by 1 billion cigarettes as both domestic and non-domestic volumes increased against a backdrop of improving economic conditions and increasing personal disposable incomes[4]
- Illicit Whites brands with no country specific labelling were the main source of non-domestic inflows, contributing approximately 60% to the total volumes in 2016[e]
- The neighbouring lower-priced countries of Ukraine and Moldova, where cigarettes on average cost less than €1, were the largest source countries for non-domestic volumes; over 96% of cigarettes from Ukraine and 99% cigarettes from Moldova were contraband
- Outflows were mainly to the more expensive Western European markets of UK and France
  - Average prices in January 2017 were €8.86 in the UK and €6.76 in France, compared to €3.26 in Romania

Total inflows by country of origin – 2012-2016[1][b][c]

ND INFLOWS TO ROMANIA					
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**
IWs with no country-specific labelling	0.35	0.41	1.48	2.26	2.66
Ukraine	0.55	0.07	0.02	0.25	0.85
Moldova	0.95	0.76	0.77	0.72	0.64
Duty Free Labelled	0.05	0.76	0.63	0.15	0.09
Serbia	0.69	0.40	0.11	0.12	0.09
Other	0.32	0.87	1.15	0.65	0.18
Total Inflows	**2.90**	**3.27**	**4.15**	**4.15**	**4.51**

Total outflows by destination country – 2012-2016[1]

OUTFLOWS FROM ROMANIA					
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**
UK	0.19	0.05	0.17	0.71	0.67
France	0.62	0.66	0.57	0.72	0.49
Germany	0.14	0.14	0.14	0.13	0.15
Norway			0.19	0.06	0.10
Ireland	0.10	0.09	0.06	0.08	0.08
Other	0.27	0.27	0.31	0.30	0.23
Total Outflows	**1.33**	**1.21**	**1.45**	**2.00**	**1.73**

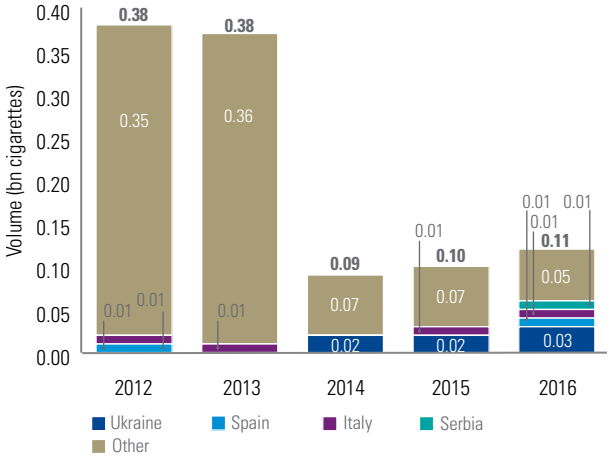
Notes: *(a) In years 2012-2016 non-domestic incidence is stated on sticks basis; prior to this a packs basis was used (b) Novel pack-swap survey introduced into the methodology from 2014 onwards; in previous years EPS was used. A comparison between the two methodologies can be found in the appendix (c) Illicit Whites with no country specific labelling comprise Illicit Whites labelled as "Duty free" and "Unspecified". Data from previous years reflects the same definition; please refer to the appendix for full methodology. The Duty Free and Unspecified inflows exclude Illicit Whites which have Duty Free labelling and unspecified labelling (d) Additional information about the process for identifying Illicit Whites is provided in the appendix (e) Marble is now being considered as an Illicit White brand in Romania and this has led to the increased share of Illicit White brands with no country specific labelling. Adjustments have accordingly been made to total Duty Free labelled and IWs with no country specific labelling inflows in years 2012-2015 as majority of Marble packs have Duty Free labelling on them (f) Norway was included in the study for the first time in 2014*

Sources: *(1) KPMG EU Flows Model and analysis of data sources provided by manufacturers (2) KPMG analysis of UNWTO Factbook 2012-2015 (3) EC Excise Duty tables (Part III – Manufactured Tobacco) (4) Economic Intelligence Unit*

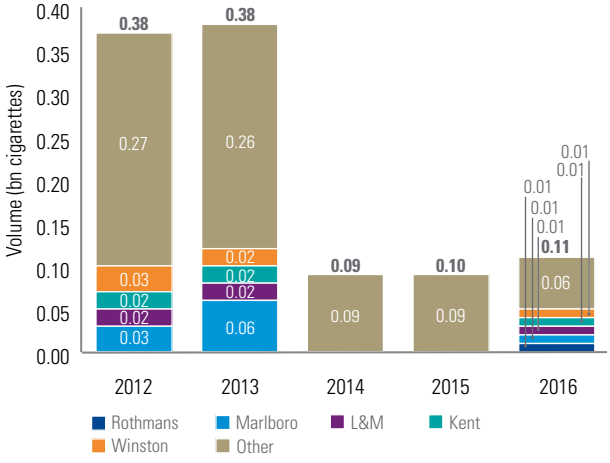
ND(L) and C&C flows

- C&C increased by 9% driven primarily by increases in Illicit White brands with no country specific labelling and inflows with Ukrainian labelling
  - Marble and Ashima were the largest Illicit White brands with 99% of the flow displaying Duty Free labelling; their share increased from 14% to 50% of total C&C in the three years to 2016
  - C&C with Ukrainian labelling increased by 0.6 billion, driven by an increase in Rothmans
- Travellers are only permitted to bring two packs of cigarettes when crossing the border into Romania from Ukraine or Moldova, leading to small legal volumes from these countries as a proportion of the total inflow[2]

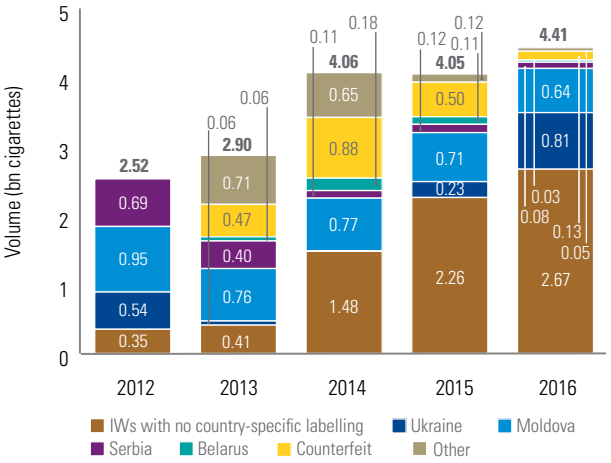
ND(L) by country of origin - 2009-2015[1][a][b]



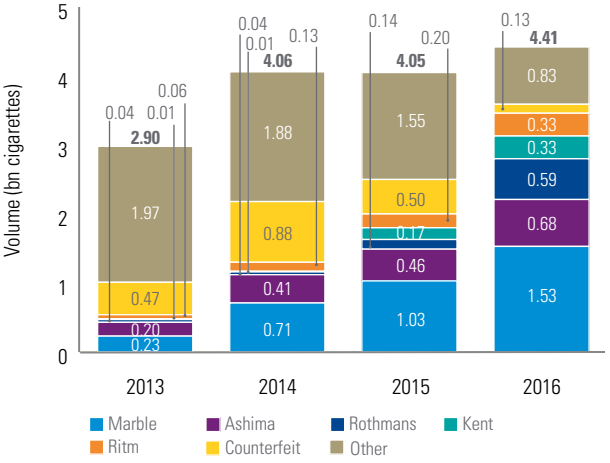
ND(L) by brand - 2009-2015[1][a][b]



C&C by country of origin - 2009-2015[1][a]



C&C by brand - 2013-2015[1][a]



Notes: *(a) KPMG calculates the split between C&C and ND(L) by calculating the ND(L) volumes and subtracting from the total inflows (b) In years 2014-2016 the ND(L) analysis was undertaken using border crossings and regional sales data provided by manufacturers; detail surrounding methodology changes is provided in the appendix (c) Additional information about the process for identifying Illicit Whites is provided in the appendix (d) Marble is now being considered as an Illicit White brand in Romania and this has led to the increased share of Illicit White brands with no country specific labelling. Adjustments have accordingly been made to total Duty Free labelled and IWs with no country specific labelling inflows in years 2012-2015 as majority of Marble packs have Duty Free labelling on them*

Sources: *(1) KPMG analysis of UNWTO Factbook 2012-2015, EU flows model and data sources provided by manufacturers (2) VisaHQ, April 2016*

RUSI Analysis: Organised Crime and the Illicit Cigarette Trade in Romania

The following analysis is based on RUSI fieldwork completed in 2015-16

Groups

As in several other cases, there is evidence that OCGs active in Romania are **moving away from high-risk activities such as drug trafficking** into C&C smuggling. For many of these groups, cigarette smuggling has become the primary focus, although there is also some evidence of polycriminality, whereby OCGs deal in multiple commodities simultaneously.

Perpetrators tend to be Romanian nationals, with many groups connected by familial links: few large foreign communities are based in the country. However, **there is also evidence of significant cross-border cooperation**, particularly with English-speaking groups, Spaniards, Turks, Bulgarians and Moldovans.

An example is presented by Operation Mangalica in March 2017, run by the Spanish Guardia Civil alongside European counterparts and the European Anti-Fraud Office. The operation uncovered a Romanian- and Bulgarian-led network smuggling cigarettes from Bulgaria, through Romania and on to Spain. Coordinated raids saw more than 31 million cigarettes seized, including illicit whites and counterfeit Marlboros, and arrests in Spain, 11 in Romania and 1 in Bulgaria. Numerous other investigations reveal **cooperation between Romanian and other national OCGs, forming extensive C&C supply chains across the region**.

Routes

Romania forms an important transit point for C&C. Its often-unmonitored land borders offer particular opportunities for cigarette smuggling; Romania shares 1,877 km of its 3,149 km border with non-EU states – one of the longest EU external borders.

The **country's northeastern borders with Ukraine and Moldova pose particular challenges** – both are major source countries, with crossings through terrain that is challenging to patrol. As a result, Romania's northeast is most strongly affected by the illicit cigarette trade, accounting for 42.9% of the total illicit market in March 2017, according to Novel Research.

OCGs cross these borders via 'ant smuggling', motor vehicle and truck. They use similar methods to import C&C from Serbia, whether at Moravița, Naidăş or the Iron Gates bridges on the Danube. Illicit cigarettes have also been detected at Bucharest and Timișoara airports, and on international and freight trains bound for Iaşi, Dorneşti and Moravița.

C&C trafficked by sea typically arrives at Constanța harbour, often from Dubai and the far East. In March 2017 Romanian Customs seized a record 14 million cigarettes worth almost €3 million, the largest volume since 12 million were exposed at Albita in 2012. From here, OCGs exploit Romania's large haulage industry to move C&C on to foreign markets; Romanian lorry drivers are known to enter the UK, for example, with large volumes of C&C, alongside other illicit goods.

RUSI Analysis: Organised Crime and the Illicit Cigarette Trade in Romania (cont.)

Methods

OCGs operating in Romania are highly inventive in their methods for concealing illicit cigarettes. Recent cases have uncovered C&C in consignments of cement, brown wrapping paper and Xerox paper. Smugglers are also known to use timber as a cover load: a recent case revealed thousands of cigarette cartons being transported in hollowed-out logs by freight train from Moldova to Romania.

Much C&C is destined for the Romanian market, where distribution occurs openly. A 2016 Eurobarometer survey found that over 83% of respondents had been offered illicit cigarettes in the street, compared to a 60% EU average.[1] Other consignments are destined for foreign markets. Particularly near borders, OCGs are known to build warehouses to stockpile goods, ready for transportation to other countries.

Illegal factories have also been uncovered in Romania, with equipment, people, industrial power and machinery bought in from Russia, Czech Republic or Moldova. An estimated 20 such facilities have been raided and shut down in the past 5 years. Yet a lower rate of detection more recently may suggest that domestic production is in decline.

Outlook

The illicit cigarette trade is a **growing priority for Romanian authorities**. Yet rising C&C implies persistent limitations to their responses. For example, though authorities maintain a strong focus on the issue at the border, there is arguably less focus on 'inland', domestic investigations. Nor are lenient and inconsistently applied penalties an effective deterrent; law enforcement report seeing the same individuals returning to C&C smuggling again and again.

Aiding this activity is the broad social acceptability of purchasing illicit cigarettes. This is bolstered by a perceived political dimension to anti-illicit trade initiatives, which are seen as unfairly targeting some of Romania's poorest citizens. Corruption is also a significant challenge; as well as facilitating C&C smuggling operations, this damages trust and hinders cooperation between agencies charged with responding.

A final challenge relates to consumption of loose tobacco. This constitutes only a small share of the market, yet the majority is illicit. In 2015, **Transcrime estimated as much as 77% of the cut tobacco consumed in Romania in 2015 to have been illicit**; this amounted to €51.8 million in potential lost revenue.[2]

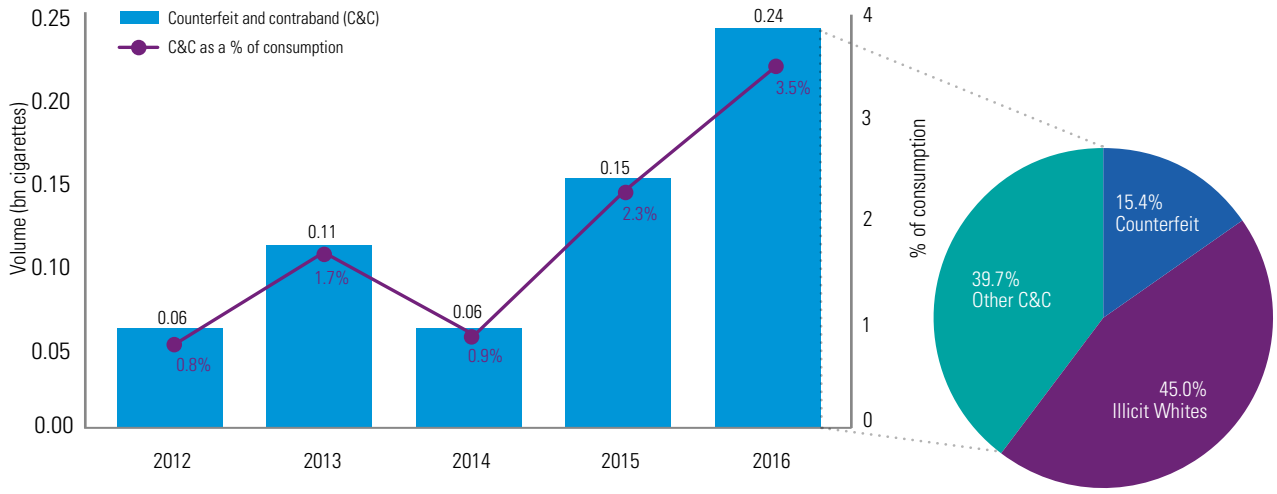
Sources: *(1) European Commission, 'Special Eruobarometer 443: Public Perception of Illicit Tobaco Trade', July 2016. (2) Transcrime, 'Bulk Tobacco Study 2015', December 2016.*

Slovakia

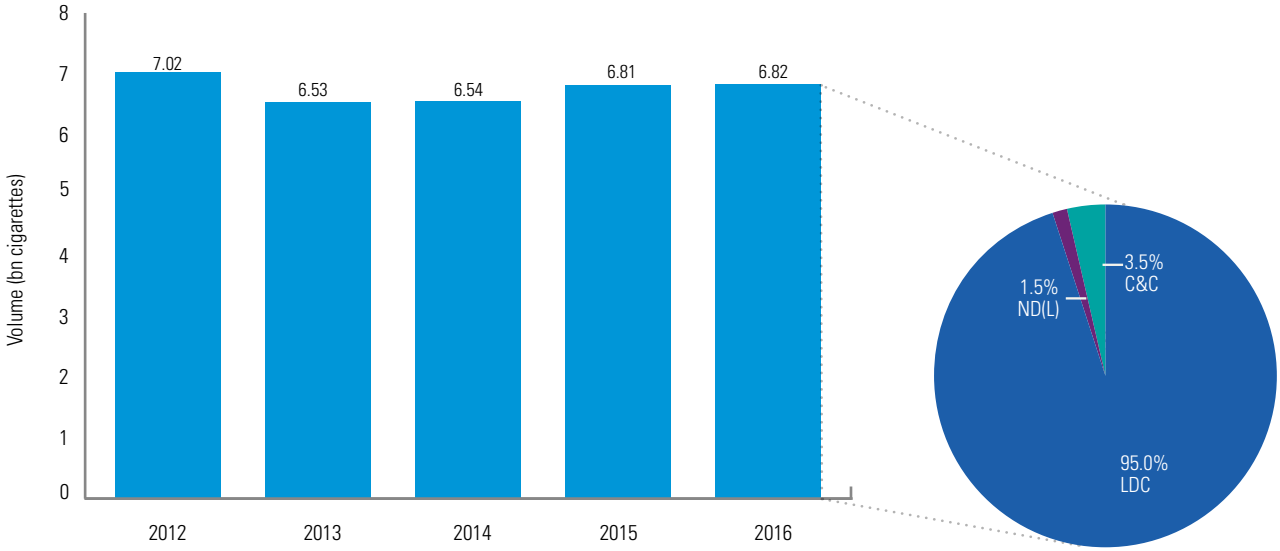
Overview

- C&C rose to 3.5% as a proportion of total consumption in Slovakia, but remained among the lowest in the EU
- C&C increased as both inflows from Ukraine and Illicit Whites brand flows with no country-specific labelling doubled

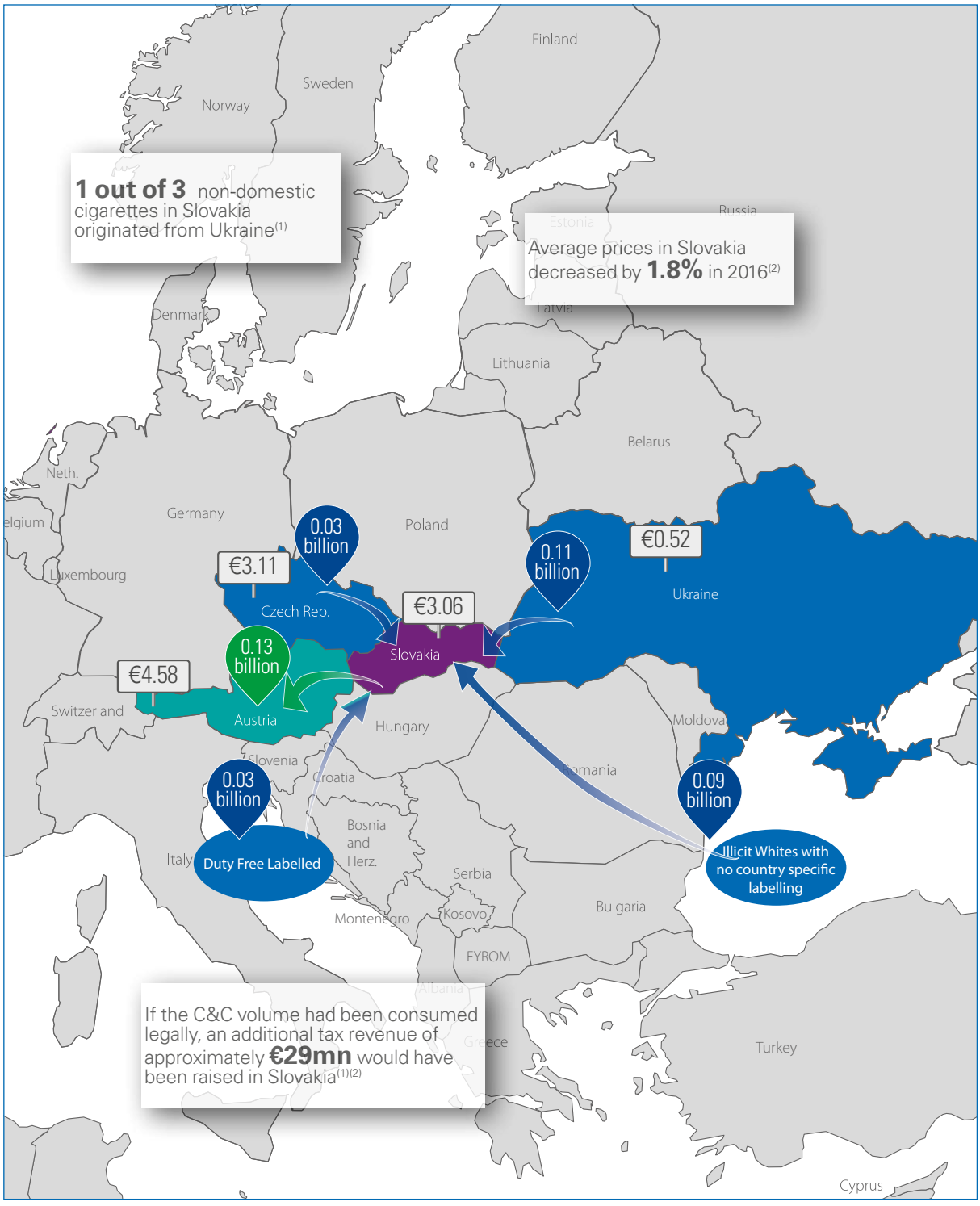
Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2012-2016



Manufactured cigarette consumption – 2012-2016



Key inflows and outflows



Note: *(a) Map shows major flows. Countries which are both source and destination countries are coded according to the larger flow*

Sources: *(1) KPMG EU Flows Model (2) EC Excise Duty tables (Part III – Manufactured Tobacco) and analysis of data sources provided by manufacturers*

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2012-2016[1][2][a]

TOTAL SLOVAKIA CONSUMPTION						
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**	**2015-16 %**
Legal domestic sales (LDS)	7.19	6.64	6.63	6.82	6.84	0%
Outflows	-0.29	-0.29	-0.18	-0.29	-0.37	27%
Legal domestic consumption (LDC)	6.89	6.35	6.45	6.53	6.47	(1%)
Non-domestic legal (ND(L))	0.07	0.07	0.03	0.12	0.10	(15%)
Counterfeit and contraband (C&C)	0.06	0.11	0.06	0.15	0.24	55%
Total non-domestic	0.13	0.18	0.08	0.28	0.34	25%
Total consumption	**7.02**	**6.53**	**6.54**	**6.81**	**6.82**	**0%**

- An increase in legal domestic sales was reflected by a rise in outflows
  - Outflows to the UK tripled, with average price differences reaching €5.80 and travel flows between Slovakia and the UK increasing by 47% in 2016[2]
- Inflows from Ukraine increased, as a 7% average price reduction alongside further depreciation of the Ukrainian Hryvania against the Euro during 2016 continued to make Ukrainian cigarettes cheaper[2][3]
- Illicit Whites inflows with no country specific labelling continued to increase to 0.09 billion cigarettes in 2016

Total inflows by country of origin – 2012-2016[1][b][c]

ND INFLOWS TO SLOVAKIA					
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**
Ukraine	0.01	0.02	0.00	0.06	0.11
IWs with no country-specific labelling	0.04	0.09	0.03	0.07	0.09
Counterfeit		0.01	0.01	0.05	0.04
Duty Free Labelled	0.03	0.00	0.00	0.02	0.03
Czech Republic	0.01	0.02	0.01	0.04	0.03
Other	0.04	0.04	0.03	0.05	0.06
Total Inflows	**0.13**	**0.18**	**0.08**	**0.28**	**0.34**

Total outflows by destination country – 2012-2016[1]

OUTFLOWS FROM SLOVAKIA					
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**
Austria	0.04	0.04	0.06	0.09	0.13
UK	0.03	0.02	0.01	0.03	0.09
Germany	0.07	0.09	0.05	0.05	0.05
Czech Republic	0.02	0.02	0.02	0.03	0.03
Switzerland	0.00	0.00	0.00	0.01	0.01
Other	0.13	0.13	0.04	0.08	0.05
Total Outflows	**0.29**	**0.29**	**0.18**	**0.29**	**0.37**

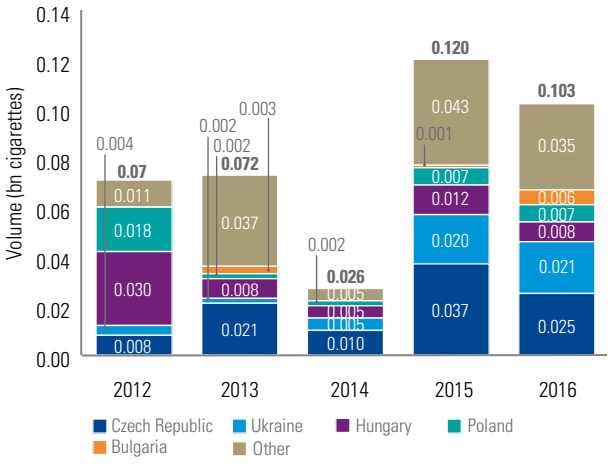
Notes: *(a) In years 2012-2016 non-domestic incidence is stated on sticks basis; prior to this a packs basis was used (b) Illicit Whites with no country specific labelling comprise Illicit Whites labelled as "Duty free" and "Unspecified". Data from previous years reflects the same definition; please refer to the appendix for full methodology (c) The Duty Free and Unspecified inflows exclude Illicit Whites which have Duty Free labelling and unspecified labelling*

Sources: *(1) KPMG EU Flows Model and analysis of data sources provided by manufacturers (2) KPMG analysis of UNWTO Factbook 2012-2015 and data sources provided by manufacturers (3) Historical FX rates, Oanda.com*

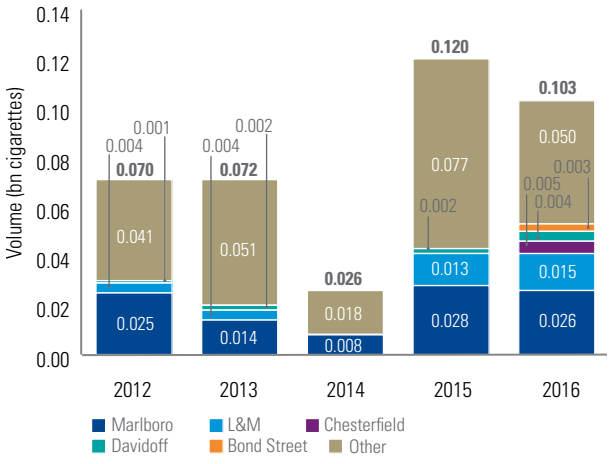
ND(L) and C&C flows

- Illicit Whites with no country specific labelling accounted for 35% of C&C
  - Jin Ling, trademark-owned by Baltic Tobacco, had either unspecified Duty Free or Ukrainian labelling and is not sold legally in any EU country
  - Dubao, trademark-owned by D&B, had no country specific labelling
- Counterfeit volumes remained stable, but decreased in proportion of total C&C from 30% to 15% in 2016
  - The majority of counterfeit was Marlboro with Duty Free or Ukrainian labelling

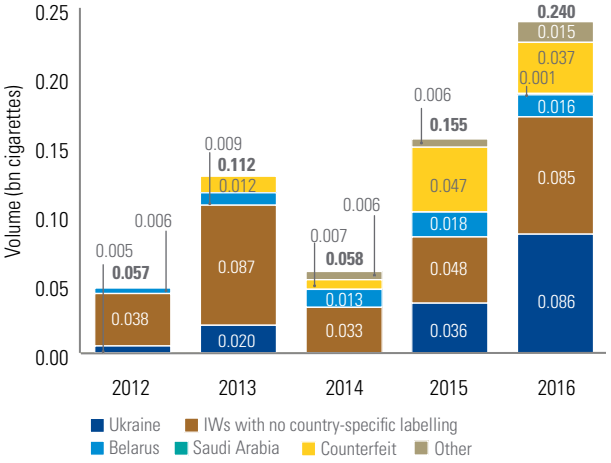
ND(L) by country of origin – 2012-2016[1][a][b]



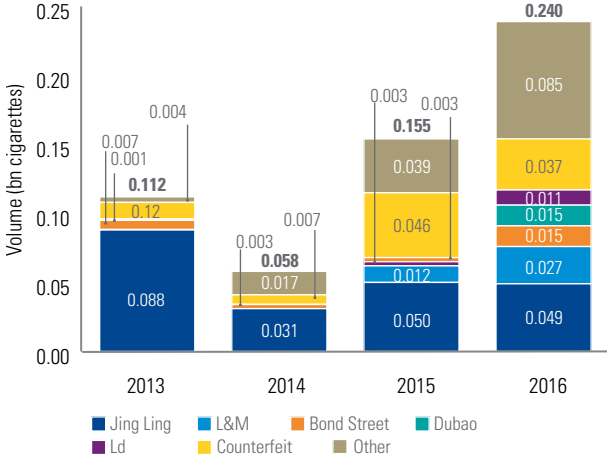
ND(L) by brand – 2012-2016[1][a][b]



C&C by country of origin – 2012-2016[1][a]



C&C by brand – 2013-2016[1][a]



Notes: *(a) KPMG calculates the split between C&C and ND(L) by calculating the ND(L) volumes and subtracting from the total inflows (b) In 2014-2016 the ND(L) analysis was undertaken using border crossings and regional sales data provided by manufacturers; detail surrounding methodology changes is provided in the appendix (c) Additional information about the process for identifying Illicit Whites is provided in the appendix*

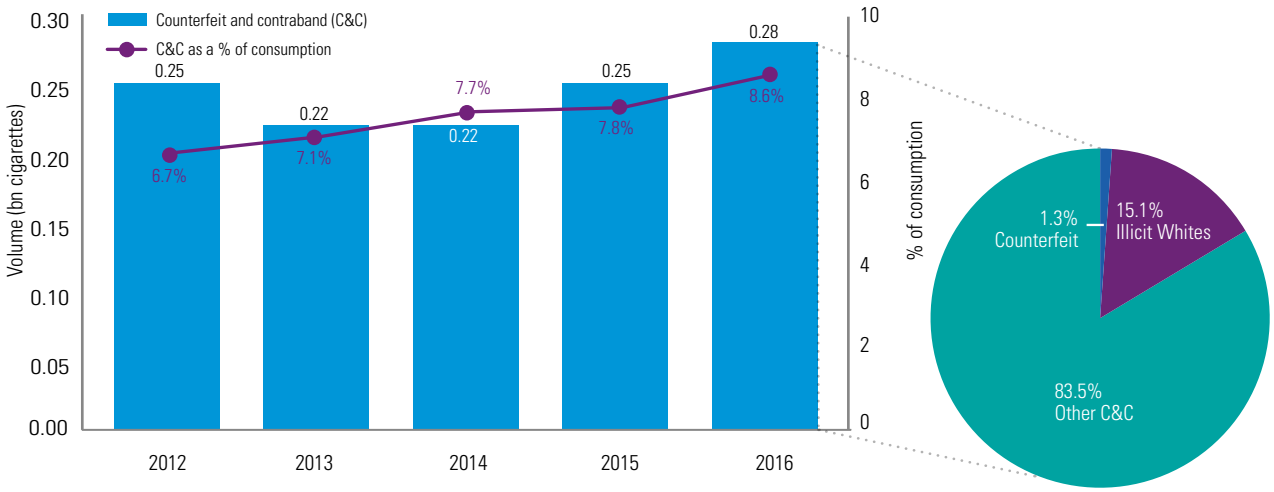
Source: *(1) KPMG analysis of UNWTO Factbook 2012-2015, EU flows model and data sources provided by manufacturers*

Slovenia

Overview

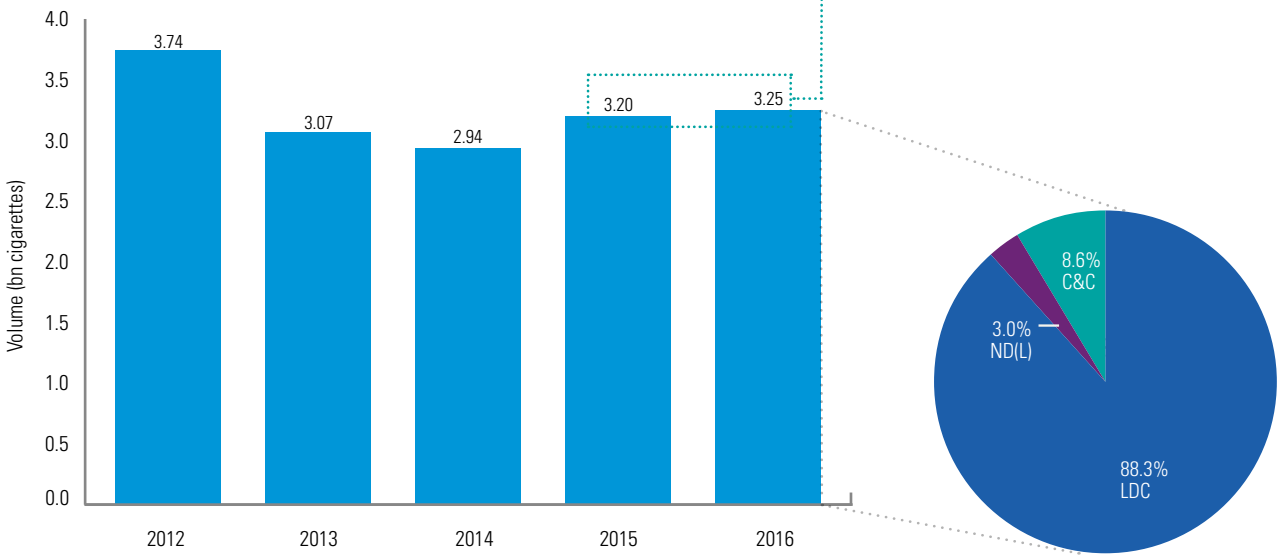
- The proportion of illicit cigarettes as a share of total consumption increased to 8.6% in 2016
- The majority of illicit cigarettes originated from non-EU Balkan countries, where average prices are lower than Slovenia
  - Neighbouring lower-priced Bosnia and Herzegovina accounted for 57% of C&C volumes

Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2012-2016

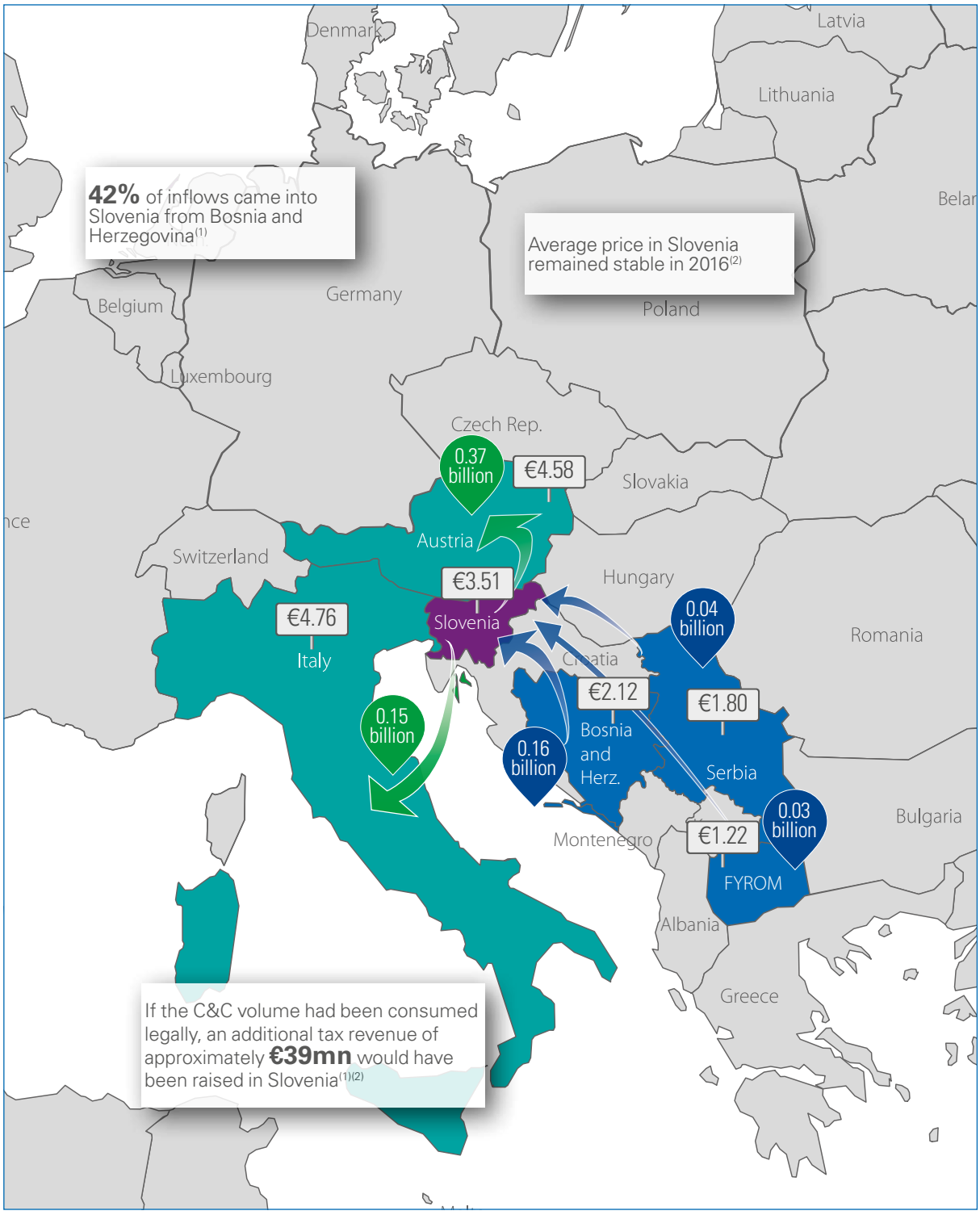


A new pack sampling plan was adopted in Austria from 2015 which was felt to be more representative of the population. It resulted in a lower non-domestic volume compared to previous years, especially flows from Slovenia – therefore consumption volumes are not comparable

Manufactured cigarette consumption – 2012-2016



Key inflows and outflows



Note: *(a) Map shows major flows. Countries which are both source and destination countries are coded according to the larger flow*
Sources: *(1) KPMG EU Flows Model (2) EC Excise Duty tables (Part III – Manufactured Tobacco)*

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2012-2016[1][2][a]

TOTAL SLOVENIA CONSUMPTION						
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**	**2015-16 %**
Legal domestic sales (LDS)	4.57	3.86	3.69	3.67	3.55	(3%)
Outflows	-1.15	-1.08	-1.03	-0.80	-0.67	(15%)
Legal domestic consumption (LDC)	3.42	2.77	2.66	2.88	2.88	(0%)
Non-domestic legal (ND(L))	0.07	0.08	0.05	0.07	0.10	40%
Counterfeit and contraband (C&C)	0.25	0.22	0.22	0.25	0.28	13%
Total non-domestic	0.32	0.30	0.28	0.32	0.38	19%
Total consumption	**3.74**	**3.07**	**2.94**	**3.20**	**3.25**	**2%**

The new pack sampling plan in Austria from 2015 reduced flows from Slovenia, which has impacted domestic consumption.

- Whilst legal domestic sales fell by 0.12 billion, there was an increase in both C&C and ND(L)
  - Inflows increased as a result of growth in flows from Bosnia and Herzegovina and Serbia, at 15% and 43% respectively
- Outflows declined by 15%, largely due to a decrease in flows to neighbouring higher-priced countries, Austria and Italy, reflecting increased border controls

Total inflows by country of origin – 2012-2016[1][b][c]

ND INFLOWS TO SLOVENIA					
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**
Bosnia And Herzegovina	0.19	0.13	0.14	0.14	0.16
Serbia	0.04	0.03	0.03	0.02	0.04
FYROM	0.01	0.01	0.01	0.03	0.03
Croatia	0.01	0.03	0.02	0.04	0.03
Poland	0.00	0.00	0.00	0.00	0.02
Other	0.06	0.10	0.07	0.09	0.11
Total Inflows	**0.32**	**0.30**	**0.28**	**0.32**	**0.38**

Total outflows by destination country – 2012-2016[1]

OUTFLOWS FROM SLOVENIA					
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**
Austria	0.83	0.68	0.74	0.42	0.37
Italy	0.10	0.19	0.15	0.21	0.15
Germany	0.16	0.18	0.10	0.10	0.09
France	0.02	0.01	0.00	0.02	0.02
Switzerland	0.00	0.00	0.00	0.01	0.02
Other	0.05	0.03	0.03	0.04	0.03
Total Outflows	**1.15**	**1.08**	**1.03**	**0.80**	**0.67**

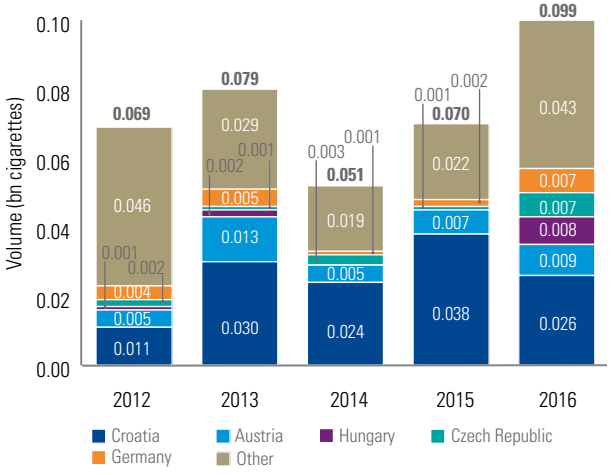
Notes: *(a) In years 2012-2016 non-domestic incidence is stated on sticks basis; prior to this, a packs basis was used (b) Illicit Whites with no country specific labelling comprise Illicit Whites labelled as "Duty free" and "Unspecified". Data from previous years reflects the same definition; please refer to the appendix for full methodology (c) The Duty Free and Unspecified inflows exclude Illicit Whites which have Duty Free labelling and unspecified labelling*

Sources: *(1) KPMG EU Flows Model and analysis of data sources provided by manufacturers (2) KPMG analysis of UNWTO Factbook 2012-2015*

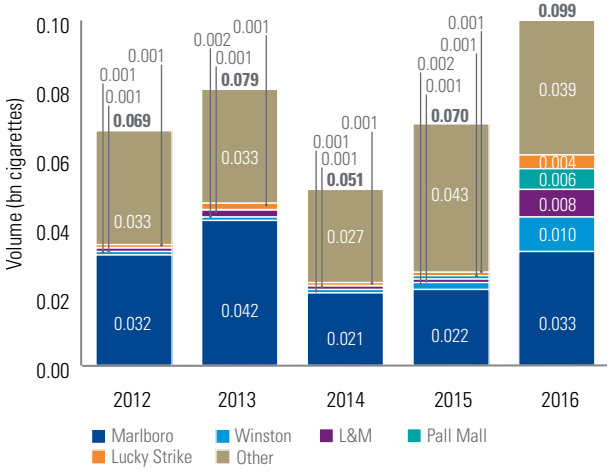
ND(L) and C&C flows

- Most ND(L) is from surrounding countries and reflected travel to and from Croatia, where cigarettes are 13% cheaper. There were also tourist flows from higher priced countries including Austria, Hungary, Czech Republic and Germany
- 56% of C&C originated from Bosnia and Herzegovina; while travel flows between the countries increased by 18.9%, the legal allowance of 200 cigarettes on entering Slovenia from a non-EU country resulted in less than 10% of the total flow being identified as ND(L)
- Most ND(L) and C&C brands identified were available in Bosnia and Herzegovina. However, Rodeo originated exclusively from FYROM

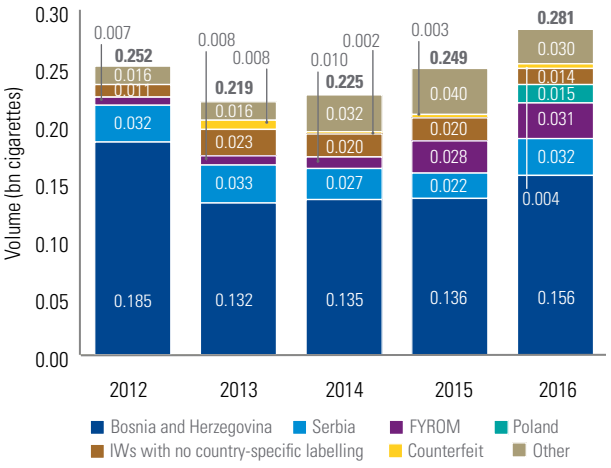
ND(L) by country of origin – 2012-2016[1](a)(b)



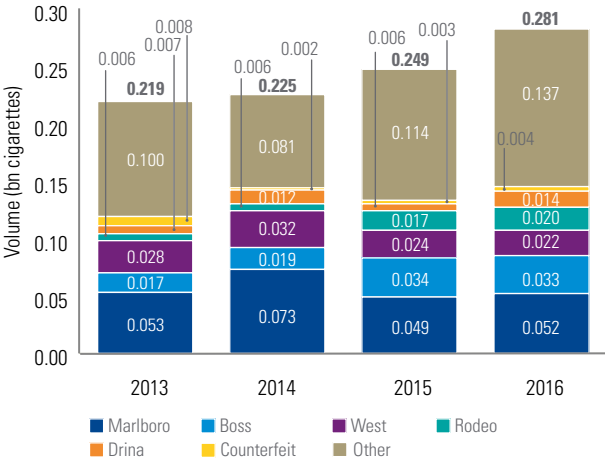
ND(L) by brand – 2012-2016[1](a)(b)



C&C by country of origin – 2012-2016[1](a)



C&C by brand – 2013-2016[1](a)



Notes: *(a) KPMG calculates the split between C&C and ND(L) by calculating the ND(L) volumes and subtracting from the total inflows (b) In 2014-2016 the ND(L) analysis was undertaken using border crossings and regional sales data provided by manufacturers; detail surrounding methodology changes is provided in the appendix (c) Additional information about the process for identifying Illicit Whites is provided in the appendix*

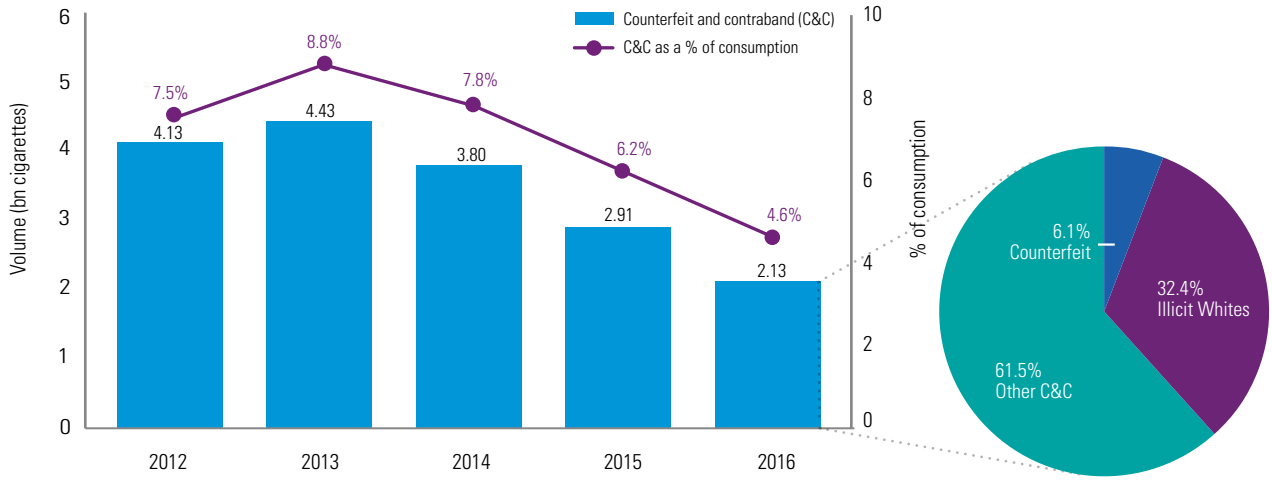
Sources: *(1) KPMG analysis of UNWTO Factbook 2012-2015, EU flows model and data sources provided by manufacturers*

Spain

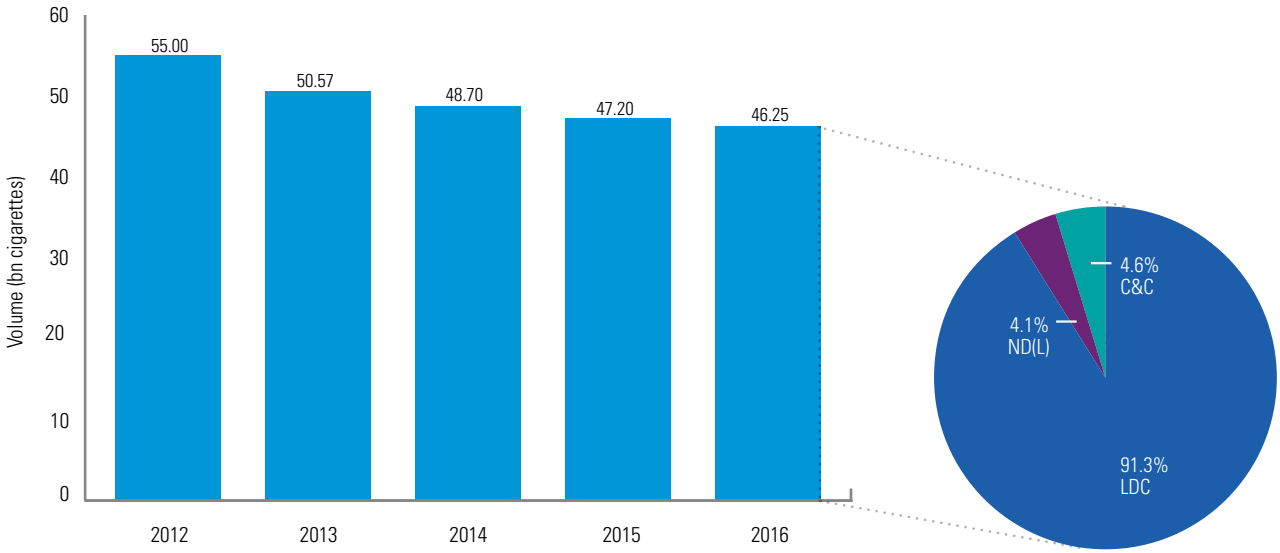
Overview

- C&C declined to 4.6% of total consumption, against a market background of law enforcement and stable pricing until December 2016. However, data from later in the year indicated that C&C may have risen again
- Flows from neighbouring countries of Andorra, Gibraltar and Canary Islands declined by 14%, however continued to account for 41% of inflows
- Illicit White brand flows continued to fall, falling by 50%, and accounted for the majority of decline in C&C

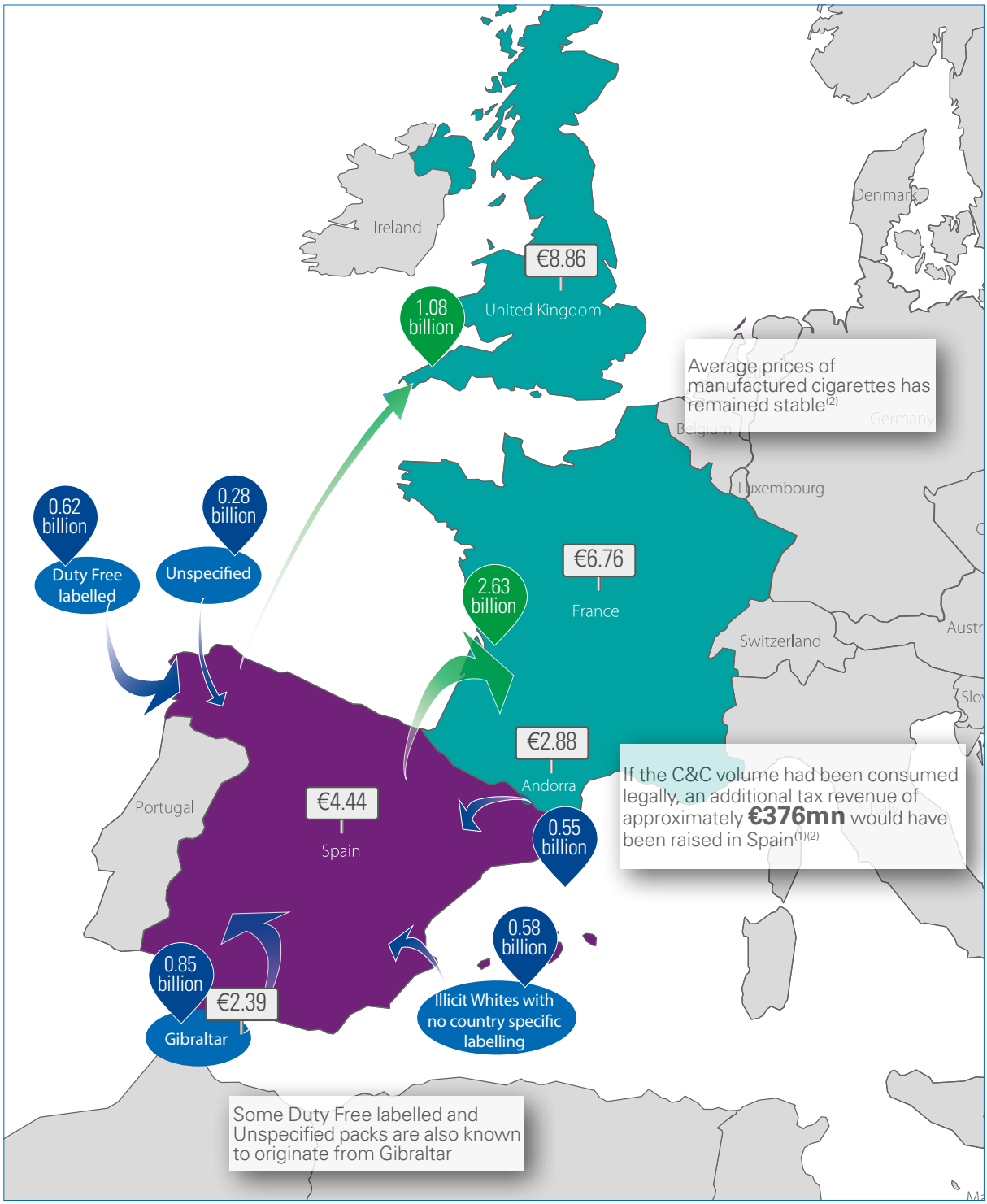
Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2012-2016



Manufactured cigarette consumption – 2012-2016



Key inflows and outflows



Note: *(a) Map shows major flows. Countries which are both source and destination countries are coded according to the larger flow*

Sources: *(1) KPMG EU Flows Model (2) EC Excise Duty tables (Part III – Manufactured Tobacco) and analysis of data sources provided by manufacturers*

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2012-2016[1][2][3][a]

TOTAL SPAIN CONSUMPTION						
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**	**2015-16 %**
Legal domestic sales (LDS)	53.50	47.71	46.99	46.50	46.47	(0%)
Outflows	-4.14	-2.85	-3.95	-4.11	-4.24	3%
Legal domestic consumption (LDC)	49.35	44.86	43.04	42.39	42.23	(0%)
Non-domestic legal (ND(L))	1.51	1.29	1.85	1.91	1.89	(1%)
Counterfeit and contraband (C&C)	4.13	4.43	3.80	2.91	2.13	(27%)
Total non-domestic	5.64	5.71	5.65	4.82	4.02	(16%)
Total consumption	**55.00**	**50.57**	**48.70**	**47.20**	**46.25**	**(2%)**

- Legal Domestic Sales were stable in 2016, which coincided with continued economic recovery[5] and no price increases until December
- Flows to France fell marginally in 2016, against a backdrop of both lower tourism volumes[5] and border sales
- Outflows in Spain reflected tourist volumes from higher priced countries. Reported outflows do not include an estimated 1.5 billion cigarettes consumed by French and British tourists whilst on holiday in Spain, and British expats
- Whilst non-domestic inflows fell, mainly driven by the survey undertaken earlier in the year, the final survey indicated that C&C may have been on the rise again

Total inflows by country of origin – 2012-2016[1][b][c]

ND INFLOWS TO SPAIN					
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**
Gibraltar		0.37	1.27	0.89	0.85
Duty Free Labelled	1.47	1.31	1.09	0.82	0.62
IWs with no country-specific labelling	0.65	1.06	1.36	0.82	0.58
Andorra	0.81	0.69	0.58	0.70	0.55
Unspecified	0.36	0.52	0.07	0.35	0.28
Other	2.35	1.76	1.28	1.24	1.14
Total Inflows	**5.64**	**5.71**	**5.65**	**4.82**	**4.02**

Total outflows by destination country – 2012-2016[1]

OUTFLOWS FROM SPAIN					
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**
France	2.33	1.84	2.70	2.70	2.63
UK	1.04	0.50	0.72	0.91	1.08
Germany	0.26	0.19	0.13	0.15	0.11
Ireland	0.14	0.07	0.08	0.05	0.10
Portugal	0.02	0.00	0.04	0.03	0.06
Other	0.34	0.25	0.28	0.27	0.25
Total outflows	**4.14**	**2.85**	**3.95**	**4.11**	**4.24**

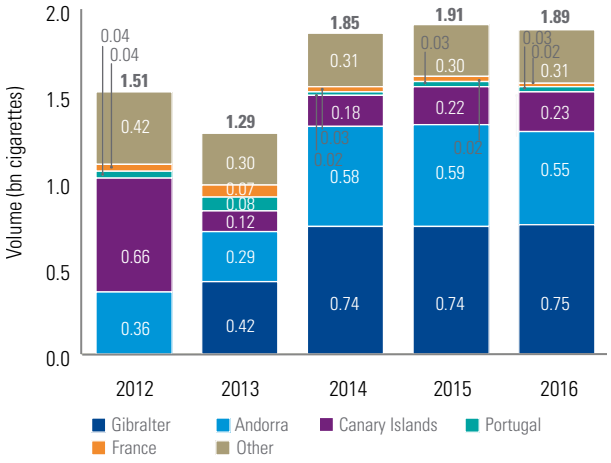
Notes: *(a) In years 2012-2016 non-domestic incidence is stated on sticks basis; prior to this a packs basis was used (b) Illicit Whites with no country specific labelling comprise Illicit Whites labelled as "Duty free" and "Unspecified". Data from previous years reflects the same definition; please refer to the appendix for full methodology. The Duty Free and Unspecified inflows exclude Illicit Whites which have Duty Free labelling and unspecified labelling (c) Additional information about the process for identifying Illicit Whites is provided in the appendix*

Sources: *(1) KPMG EU Flows Model and analysis of data sources provided by manufacturers (2) KPMG analysis of UNWTO Factbook 2012-2015 (3) EC Excise Duty tables (Part III – Manufactured Tobacco) (4) Tobacco Commissioner (5) National Statistics Institute, Spain*

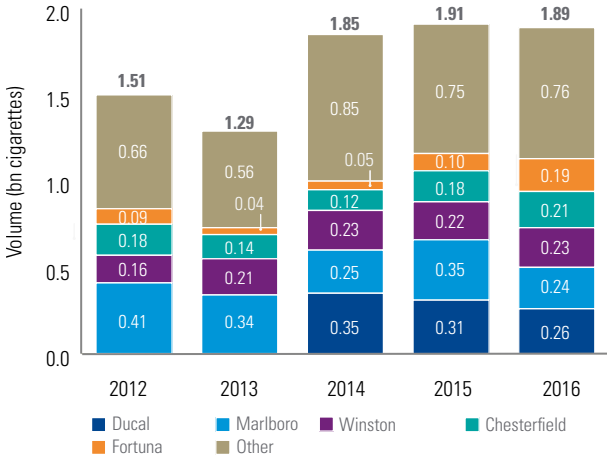
ND(L) and C&C flows

- 92% of flows from neighbouring countries were considered legal, with volumes supported by frontier workers and travel between countries
  - 7,000 Spanish residents travel to Gibraltar for work every day and are entitled to bring 80 cigarettes per month back into Spain
  - 13.7m Spanish residents travelled to Andorra, Canary Islands and Gibraltar in 2016
- Illicit White brand flows with no country specific labelling continued to decline, on the back of a 41% decline in American Legend, but remained the key source of C&C in 2016
- C&C of unspecified origin which was not Illicit White brands declined by 20%, including Austin and Elixyr, trademark-owned by H. Van Landwyck
- Seizures increased by 20% in 2016 to 15.8m cigarettes, reflecting the continued levels of law enforcement[6]

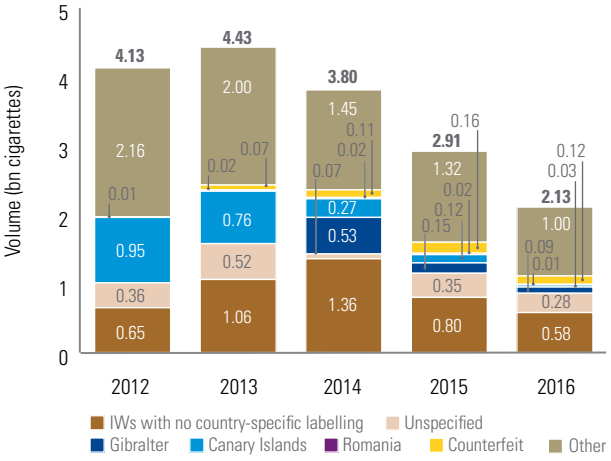
ND(L) by country of origin – 2012-2016[1][2][3][4][5][a][b][c]



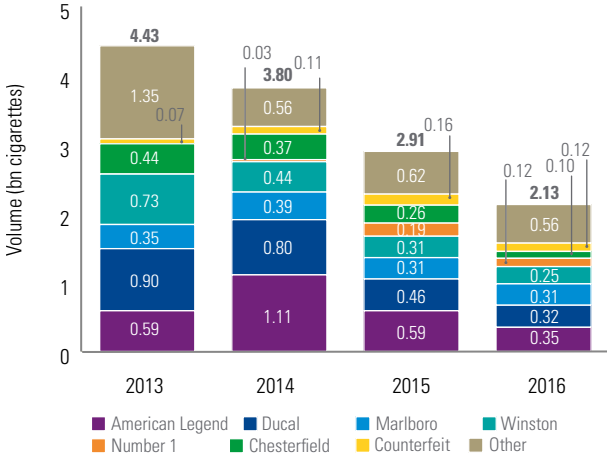
ND(L) by brand – 2012-2016[1][2][a]



C&C by country of origin – 2012-2016[1][2][a]



C&C by brand – 2013-2016[1][2][a]



Notes: *(a) KPMG calculates the split between C&C and ND(L) by calculating the ND(L) volumes and subtracting from the total inflows (b) In years 2014-2016 the ND(L) analysis was undertaken using border crossings and regional sales data provided by manufacturers; detail surrounding methodology changes is provided in the appendix (c) KPMG uses data on propensity to travel and purchases cigarettes in Andorra, Gibraltar and the Canary Islands instead of smoking prevalence data. Please refer to the methodology for more information*

Sources: *(1) KPMG analysis of UNWTO Factbook 2012-2015, EU flows model and data sources provided by manufacturers (2) KPMG analysis of data sources provided by manufacturers (3) Government of Gibraltar, Statistics (4) Government of Andorra Statistics (5) Istec, Canary Island visitor numbers (6) Altadis data from manufacturers*

RUSI Analysis: Organised Crime and the Illicit Cigarette Trade in Spain

The following analysis is based on RUSI fieldwork completed in 2015-16

Groups

Many of the **groups involved in C&C smuggling in Spain have emerged from within an existing, active organised crime community**. As OCGs have noted the high profits and low risks involved in the illicit cigarette trade, many have diversified to capitalise on the activity.

Yet there is little evidence of a decisive shift away from high-risk activities such as drug trafficking. Instead, **many groups have embraced cigarette smuggling alongside other crime types**. Illustrating this trend is a 2014 Civil Guard operation, which saw 5 million illicit cigarettes seized from an organised crime network also distributing counterfeit clothing and running a marijuana factory.[1]

Where such overlaps exist, **proceeds from one area can provide 'start-up capital'** for new activities until they become profitable. To allow this, many OCGs have adopted a flexible, networked approach, rather than operating according to a strict hierarchical model. This ensures that OCGs can benefit from the expertise of members and collaborators in relation to crimes such as C&C smuggling, while capitalising on established routes and methods to facilitate multiple areas of activity. **The parallels with legitimate business practice are evident**, with activity driven by market demand and OCGs diversifying to exploit multiple opportunities.

These networked groups also maintain strong international ties. Such co-operation structures are thought to be mainly ad hoc, lasting as long as a certain composition of people yields success. The 2014 Civil Guard operation described above uncovered participation in such a network by Spaniards, Bulgarians, Andorrans, Portuguese and Romanians. A July 2016 operation similarly saw both Spaniards and Bulgarians arrested for operating illegal cigarette factories in Spain.

Routes

The prevalence of **cigarette smuggling across Spain's land borders with Andorra and Gibraltar** is well known. Here, pedestrian or 'ant smuggling' occurs blatantly, with little interference from law enforcement. Some of this activity is carried out by individuals acting alone, selling illicit cigarettes directly to consumers. Much, however, is coordinated by OCGs, which collate the produce for distribution across Spain.

Pedestrian smuggling often occurs on a small scale. This is illustrated by individuals known as farderos who transport illicit cigarettes on foot from Andorra over mountain paths into Spain. Others – often Spanish women referred to as matuteras – repeatedly cross the border with Gibraltar, carrying one or two cartons per trip.

Yet the visibility of this form of C&C is not an accurate measure of its scale or significance. Though fewer data exist, **recent investigations highlight the increasing scope and sophistication of container smuggling**. In recent years, C&C has been detected transiting the ports of Algeciras, Valencia, Barcelona and Bilbao. In January 2013, Spanish Customs dismantled an OCG importing illicit cigarettes by switching details with other containers; 1.4 million illicit packs were seized.

Sources: (1) Ellis, 'On Tap Europe: Organised Crime and Illicit Trade in Spain'.

RUSI Analysis: Organised Crime and the Illicit Cigarette Trade in Spain (cont.)

Methods

OCGs using containers often conceal C&C among legal, declared products. Recent cases have exposed C&C among goods declared as equestrian equipment (headed for Algeciras) and construction material (at Bilbao).

Another known method is to switch the identifying numbers of two containers, one carrying legal, low-value goods, another illicit cigarettes, enabling the latter to dock with papers declaring legal goods. In November 2012, for example, Spanish Customs detected the switching of identifiers for low-value, legal goods destined for Portugal with a container carrying illicit cigarettes destined for Gambia. In the operation that followed, more than 460,000 illicit packs were seized.

An emerging trend involves the manufacture of illicit cigarettes in illegal factories. In July 2016, authorities dismantled a network operating three factories in the provinces of Málaga, Toledo and Salamanca, each with an estimated production capacity of over 11 million cigarettes per week. Various methods are used to protect such factories, from installing soundproofing and electronic security devices to forcing workers to live on site.

Illict sales occur outside the regulated supply chain, via newspaper kiosks or street vendors. An emerging trend in Andalusia is the sale of products direct from private homes. This method has gained popularity due to the challenges it poses for law enforcement in obtaining search warrants; the rights attached to a citizen's home are often given primacy, prevailing over the protection of state tax interests.

Outlook

Spanish authorities recognise the role of OCGs in the illicit cigarette trade. The trade is prioritised alongside other serious crime and authorities take a proactive approach in response.

Yet high levels of social acceptability challenge their efforts. A 2013 survey by Spanish think-tank Think-Com found that as many as 41 % of Spaniards do not have a negative opinion of tobacco smuggling.[2] A related challenge concerns rising consumer demand for illicit loose tobacco products, often perceived as a cheap alternative and as a means to support Spanish agriculture.

Further challenges derive from the inconsistent application of penalties by prosecutors. These often fail to act as a deterrent, with the same individuals returning to the illicit cigarette trade following prosecution or civil action. They do so with greater knowledge of law-enforcement methods and capabilities, becoming an increasingly difficult target for subsequent investigations.

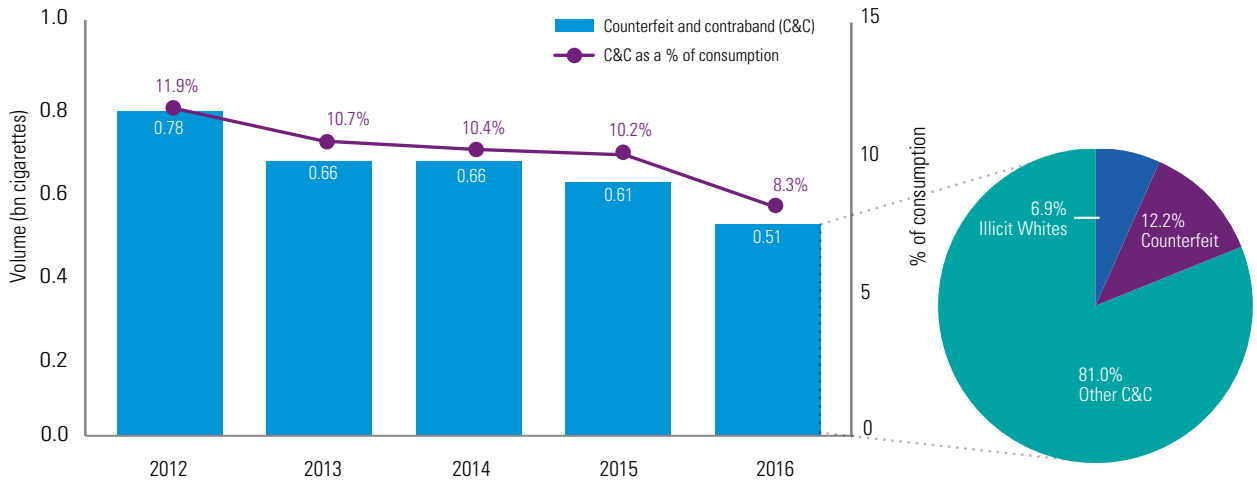
Sources: *(2) ThinkCom.es, 'Estudio Sobre El Consumo de Tabaco y Alcohol en España' ['Study on Tobacco and Alcohol Consumption in Spain'], October 2013*

Sweden

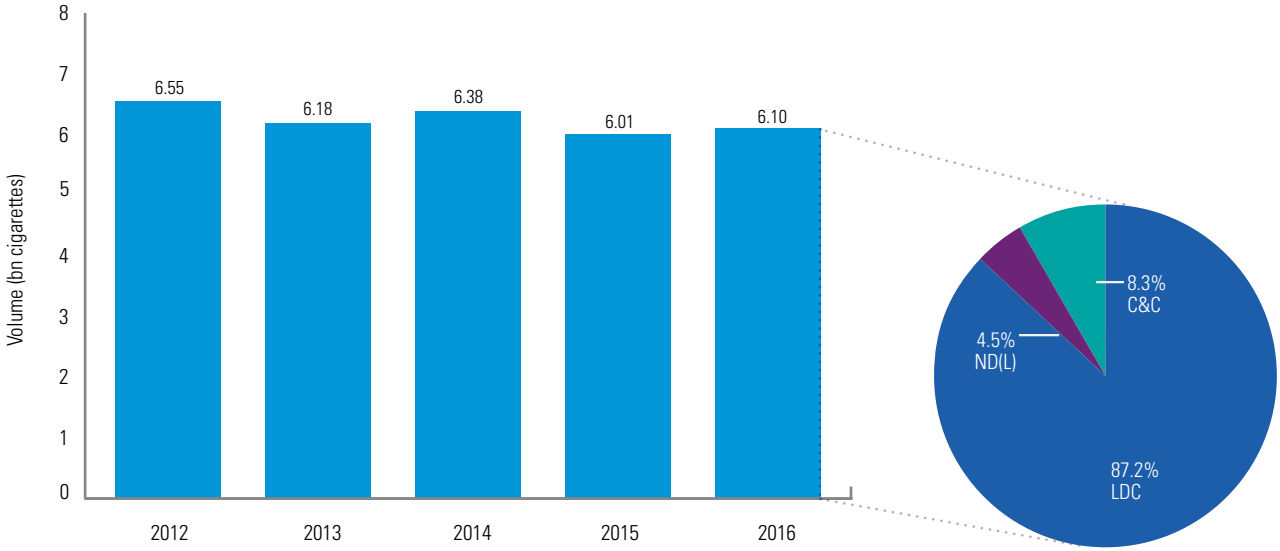
Overview

- C&C continued its long term decline, falling to 8.3% of consumption in 2016
- Total consumption and legal domestic sales stabilised against a backdrop of economic growth and stricter border controls along with population growth related to the arrival of 163,000 migrants in Sweden in 2016
- Domestic Illicit Whites fell to 7.1% of C&C, compared with 18% in the previous year

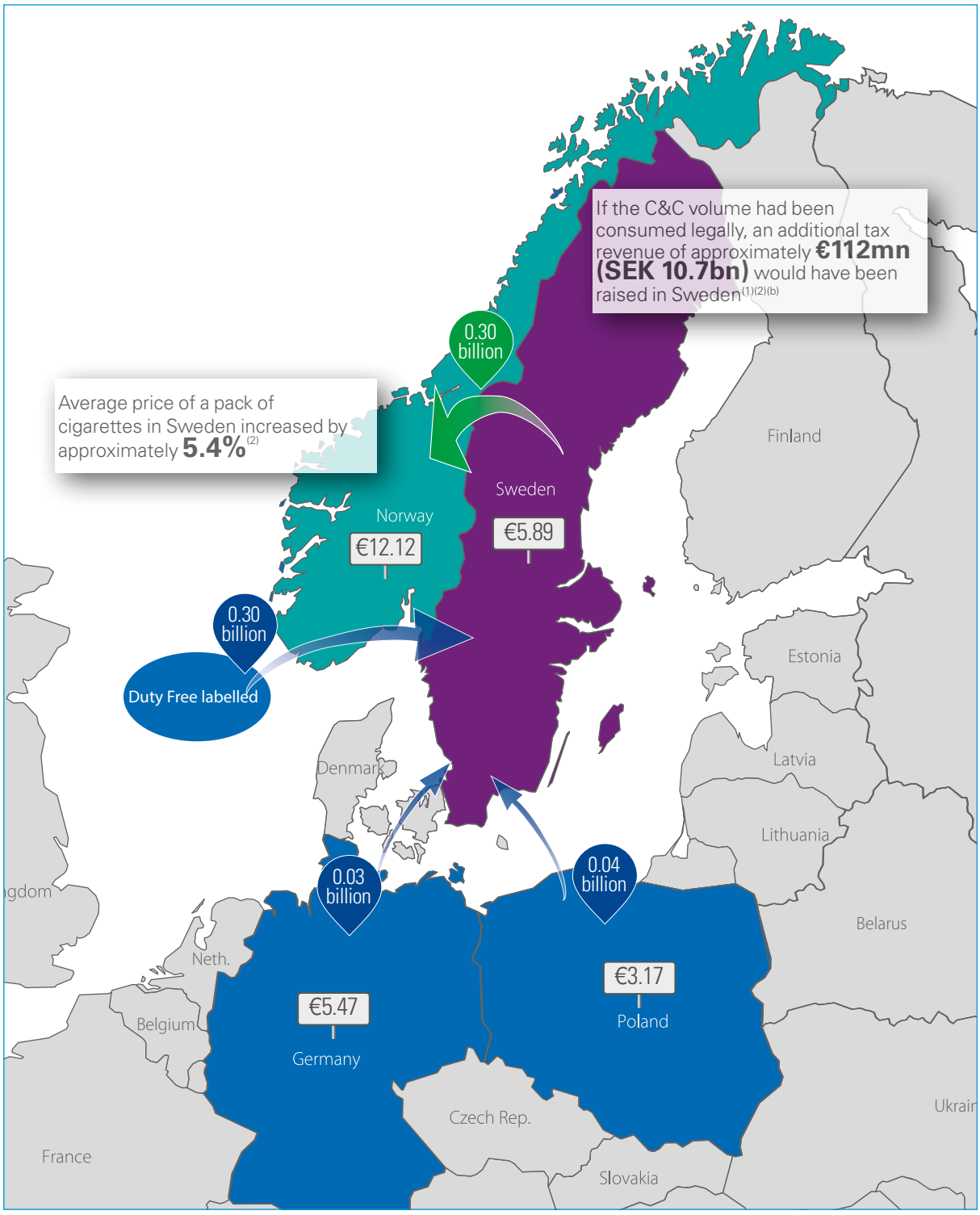
Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2012-2016



Manufactured cigarette consumption – 2012-2016



Key inflows and outflows



Note: *(a) Map shows major flows. Countries which are both source and destination countries are coded according to the larger flow*

Sources: *(1) KPMG EU Flows Model and analysis of data sources provided by manufacturers (2) EC Excise Duty tables (Part III – Manufactured Tobacco*

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2012-2016[1][2][a]

TOTAL SWEDEN CONSUMPTION						
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**	**2015-16 %**
Legal domestic sales (LDS)	6.04	5.87	5.94	5.66	5.72	1%
Outflows	-0.44	-0.51	-0.39	-0.54	-0.40	(26%)
Legal domestic consumption (LDC)	5.59	5.36	5.56	5.12	5.32	4%
Non-domestic legal (ND(L))	0.17	0.16	0.16	0.28	0.27	(4%)
Counterfeit and contraband (C&C)	0.78	0.66	0.66	0.61	0.51	(17%)
Total non-domestic	0.95	0.83	0.82	0.90	0.78	(13%)
Total consumption	**6.55**	**6.18**	**6.38**	**6.01**	**6.10**	**2%**

- Legal Domestic Sales stabilised in Sweden, against a backdrop of economic growth[4] and border controls introduced on the Oresund bridge in 2016[5]
- Duty free labelled flows increased as the number of tourists visiting Sweden rose by 5% in 2016[5]
- Flows from Poland declined by 51% from 2015 following the stricter border controls in Sweden[6]
- Total outflows to neighbouring countries declined by 26%, potentially reflecting the border controls introduced in 2016

Total inflows by country of origin – 2012-2016[1][b][c]

ND INFLOWS TO SWEDEN					
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**
Duty Free Labelled	0.21	0.26	0.27	0.24	0.30
Counterfeit		0.03	0.09	0.06	0.06
Poland	0.13	0.12	0.08	0.09	0.04
Spain	0.01	0.01	0.01	0.01	0.03
Germany	0.00	0.01	0.00	0.02	0.03
Other	0.43	0.40	0.37	0.48	0.33
Total Inflows	**0.78**	**0.83**	**0.82**	**0.90**	**0.78**

Total outflows by destination country – 2012-2016[1]

OUTFLOWS FROM SWEDEN					
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**
Norway	0.32	0.28	0.27	0.37	0.30
Denmark	0.04	0.04	0.03	0.05	0.04
Germany	0.01	0.05	0.02	0.02	0.02
Netherlands	0.02	0.02	0.02	0.01	0.01
UK	0.05	0.01	0.02	0.01	0.01
Other	0.01	0.11	0.04	0.08	0.02
Total Outflows	**0.44**	**0.51**	**0.39**	**0.54**	**0.40**

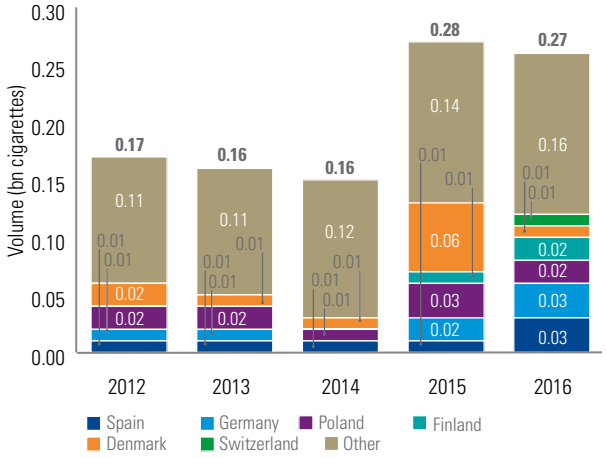
Notes: *(a) In years 2012-2016 non-domestic incidence is stated on sticks basis; prior to this a packs basis was used (b) Illicit Whites with no country specific labelling comprise Illicit Whites labelled as "Duty free" and "Unspecified". Data from previous years reflects the same definition; please refer to the appendix for full methodology (c) The Duty Free and Unspecified inflows exclude Illicit Whites which have Duty Free labelling and unspecified labelling*

Sources: *(1) KPMG EU Flows Model and analysis of data sources provided by manufacturers (2) KPMG analysis of UNWTO Factbook 2012-2015 (3) KPMG analysis of EC Excise Duty tables, January 2017 (Part III – Manufactured Tobacco) and data sources provided by manufacturers (4) National Institute of Economic research, Sweden (5) KPMG analysis of UNWTO Factbook 2012-2015 (6) Sweden and Denmark crack down on refugees at borders, The Guardian, Jan. 2016*

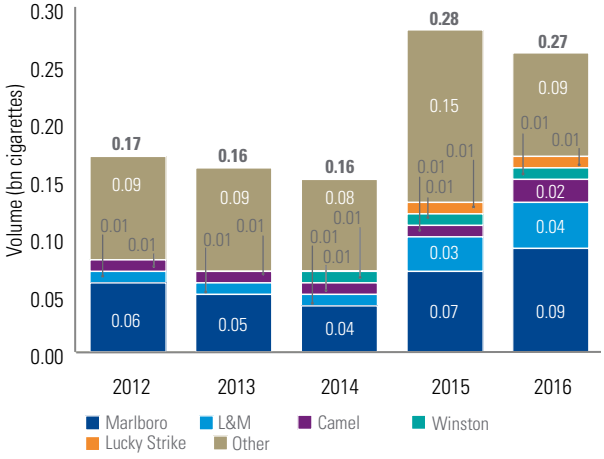
ND(L) and C&C flows

- Non-domestic legal flows remained stable and were mainly reflective of consumption of EU origin cigarettes purchased when Swedes travelled to lower priced countries
- C&C fell by 17% as flows from both Poland and Belarus approximately halved following the introduction of Swedish border controls with other EU countries in 2016
- Domestic Illicit Whites accounted for 7.1% of C&C[6](d)
  - Domestic Illicit Whites have Swedish labelling but no tax has been paid and they have no legal distribution in Sweden

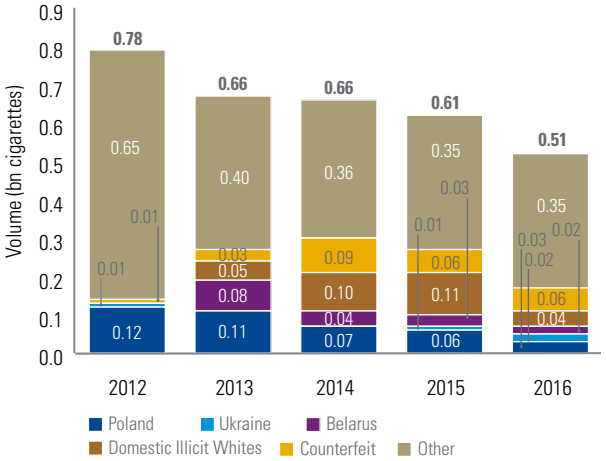
ND(L) by country of origin – 2012-2016[1](2)(a)(b)



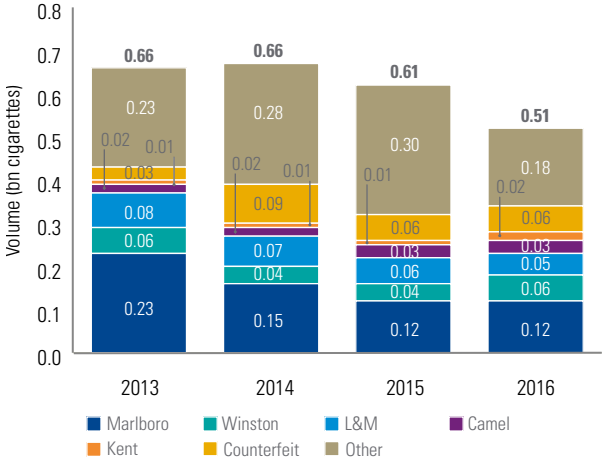
ND(L) by brand – 2012-2016[1](2)(a)(b)



C&C by country of origin – 2012-2016[1](2)(a)



C&C by brand – 2013-2016[1](2)(3)(a)



Notes: *(a)) KPMG calculates the split between C&C and ND(L) by calculating the ND(L) volumes and subtracting from the total inflows (b) In years 2014-2016 the ND(L) analysis was undertaken using border crossings and regional sales data provided by manufacturers; detail surrounding methodology changes is provided in the appendix (c) Additional information about the process for identifying Illicit Whites is provided in the appendix (d) The Domestic Illicit Whites volumes were derived from a study undertaken by KPMG and the local NMA which reported Illicit White consumption as 1.9% of total consumption which, when applied to Project SUN derives a volume of 0.11 billion cigarettes*

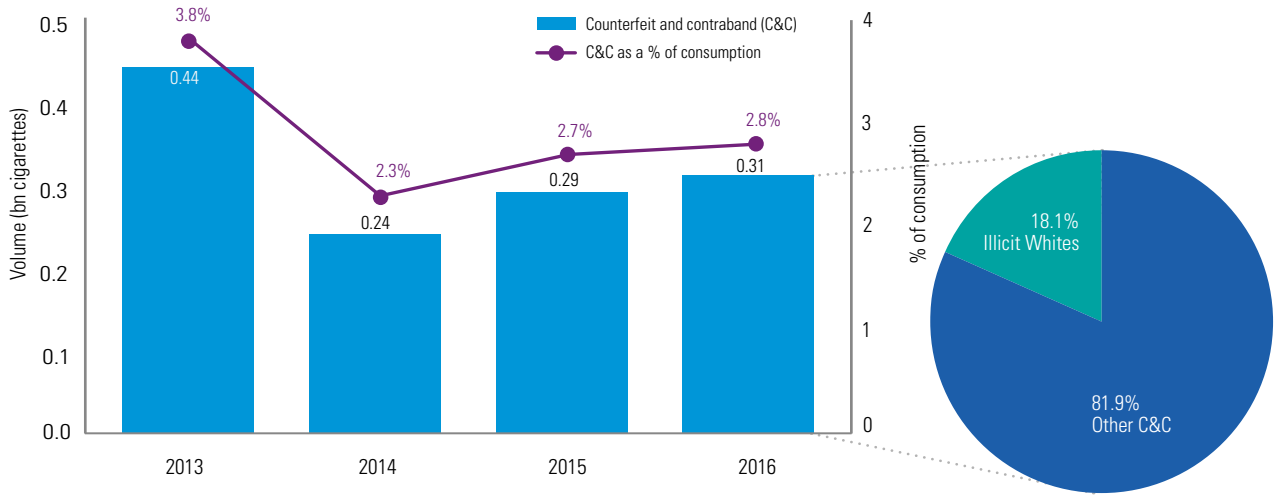
Sources: *(1) KPMG analysis of UNWTO Factbook 2012-2015, EU flows model and data sources provided by manufacturers (2) Obeskattade cigaretter 2016*

Switzerland

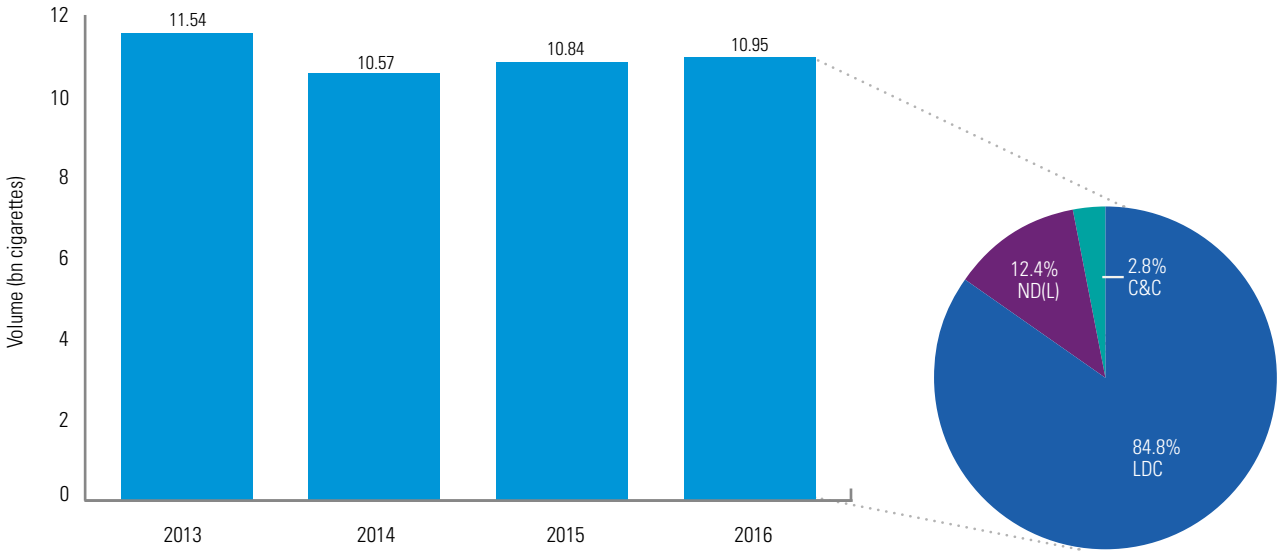
Overview

- C&C volumes in Switzerland remained stable at 2.8% of total consumption, one of the lowest C&C shares in the study
- The widening price gaps between Switzerland and neighbouring countries, caused by currency fluctuations, supported increased non-domestic legal consumption
- Illicit Whites with no country specific labelling were the largest source of C&C, while flows from Balkan countries accounted for over a third of C&C

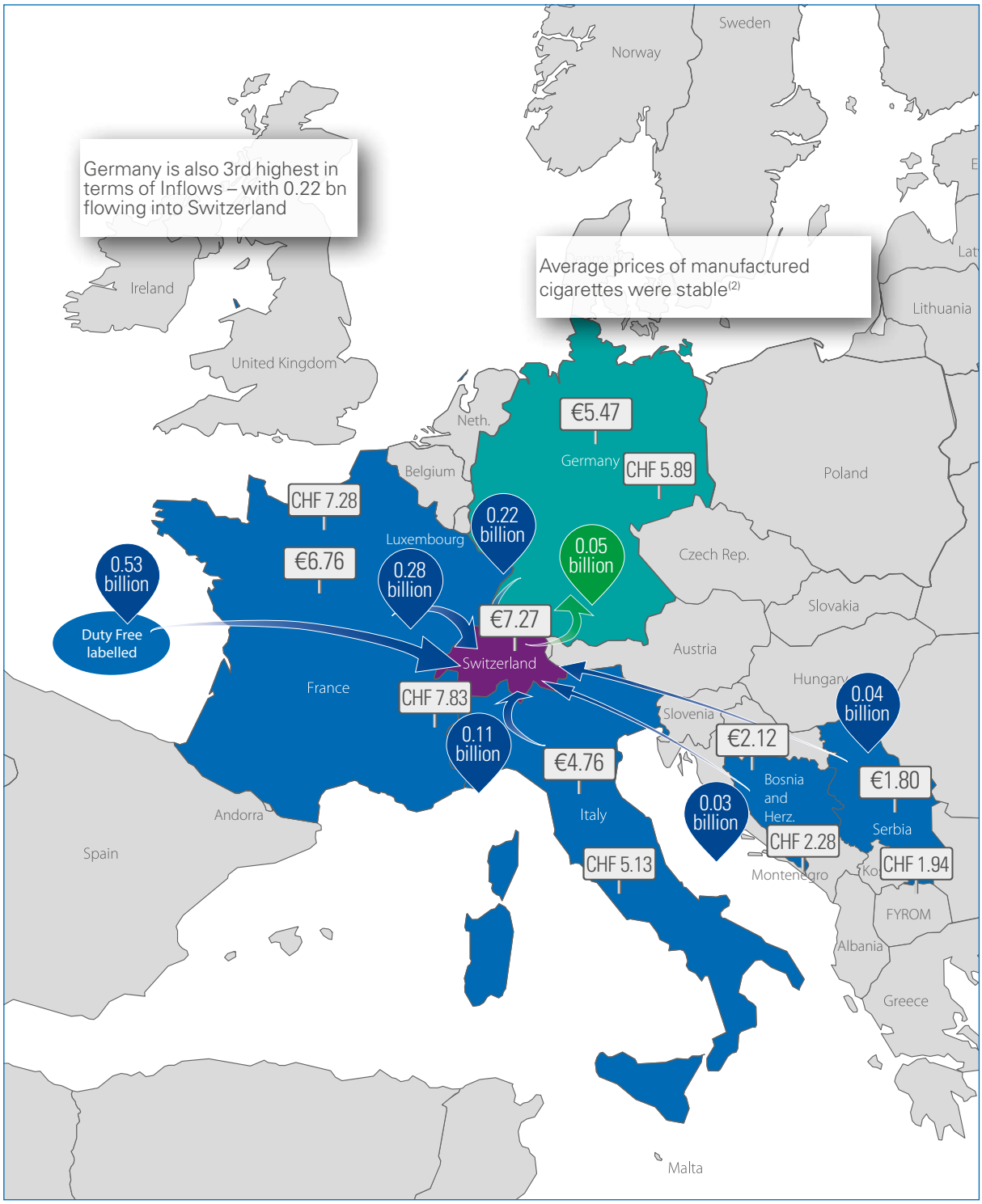
Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2013-2016



Manufactured cigarette consumption – 2013-2016



Key inflows



Note: *(a) Map shows major flows. Countries which are both source and destination countries are coded according to the larger flow*

Sources: *(1) KPMG EU Flows Model (2) EC Excise Duty tables (Part III – Manufactured Tobacco) and analysis of data sources provided by manufacturers*

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2013-2016[1][2][a][d]

TOTAL SWITZERLAND CONSUMPTION					
Billion cigarettes	**2013**	**2014**	**2015**	**2016**	**2015-16 %**
Legal domestic sales (LDS)	10.57	10.12	9.76	9.48	(3%)
Outflows	-0.35	-0.47	-0.28	-0.20	(28%)
Legal domestic consumption (LDC)	10.22	9.65	9.48	9.28	(2%)
Non-domestic legal (ND(L))	0.88	0.68	1.07	1.36	27%
Counterfeit and contraband (C&C)	0.44	0.24	0.29	0.31	8%
Total non-domestic	1.32	0.92	1.36	1.67	23%
Total consumption	**11.54**	**10.57**	**10.84**	**10.95**	**1%**

- Overall, total consumption was stable, against a backdrop of no changes to prices or regulation in 2016
- An increase in inflows from neighbouring France reflected lower prices, with customers taking advantage of a strong Swiss Franc
- Duty Free inflows account for a higher proportion of non-domestic consumption in Switzerland compared with EU countries as it is a non-EU country
  - International travellers are entitled to a Duty Free allowance when entering Switzerland from any country, as such the volume of travel supports a high volume of Duty Free non-domestic legal

Total inflows by country of origin – 2013-2016[1][b][c][d]

ND INFLOWS TO SWITZERLAND				
Billion cigarettes	**2013**	**2014**	**2015**	**2016**
Duty Free Labelled	0.32	0.22	0.37	0.53
France	0.10	0.04	0.09	0.28
Germany	0.21	0.17	0.26	0.22
Italy	0.12	0.12	0.18	0.11
Austria	0.00	0.02	0.04	0.04
Other	0.57	0.35	0.42	0.47
Total inflows	**1.32**	**0.92**	**1.36**	**1.67**

Total outflows by destination country – 2013-2016[1][d]

OUTFLOWS FROM SWITZERLAND				
Billion cigarettes	**2013**	**2014**	**2015**	**2016**
Germany	0.03	0.12	0.10	0.05
France	0.14	0.08	0.03	0.04
UK	0.01	0.01	0.01	0.03
Netherlands	0.08	0.07	0.04	0.03
Sweden	0.00	0.00	0.00	0.01
Other	0.09	0.20	0.09	0.04
Total outflows	**0.35**	**0.47**	**0.28**	**0.20**

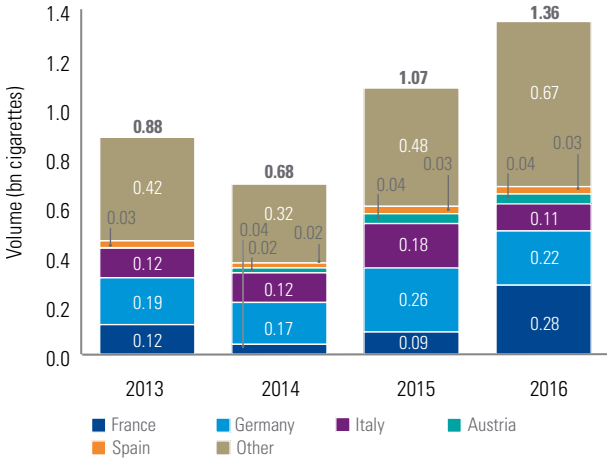
Notes: *(a) In years 2012-2016 non-domestic incidence is stated on sticks basis; prior to this a packs basis was used (b) Illicit Whites with no country specific labelling comprise Illicit Whites labelled as "Duty free" and "Unspecified". Data from previous years reflects the same definition; please refer to the appendix for full methodology. The Duty Free and Unspecified inflows exclude Illicit Whites which have Duty Free labelling and unspecified labelling (c) Additional information about the process for identifying Illicit Whites is provided in the appendix*

Sources: *(1) KPMG EU Flows Model and analysis of data sources provided by manufacturers (2) KPMG analysis of UNWTO Factbook 2012-2015*

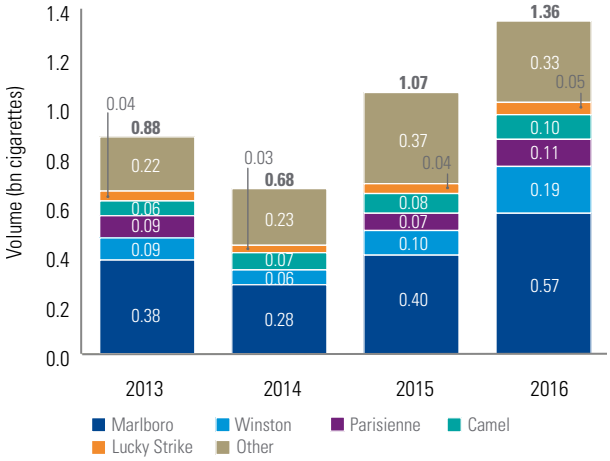
ND(L) and C&C flows

- High ND(L) volumes are reflective of the opportunities presented by Duty Free shopping when leaving or entering the country, alongside the high volume of flows from neighbouring countries, especially commuters
- C&C volumes from Bosnia and Herzegovina, Serbia and Kosovo are reflective of the Balkan migrant communities in Switzerland
- Illicit Whites with no country specific labelling were identified for the first time in 2016, but account for 0.4% of total consumption

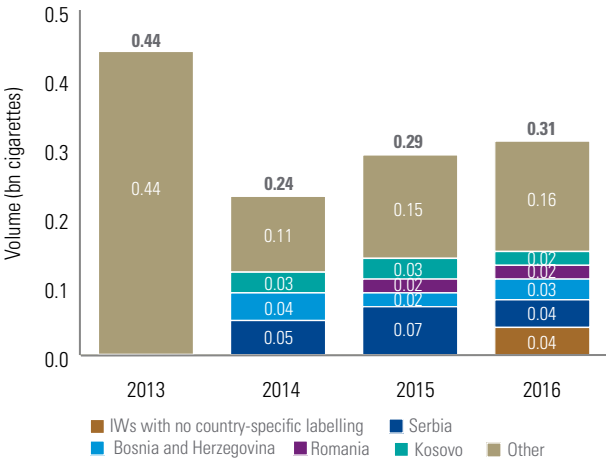
ND(L) by country of origin – 2013-2016[1](a)(b)(c)



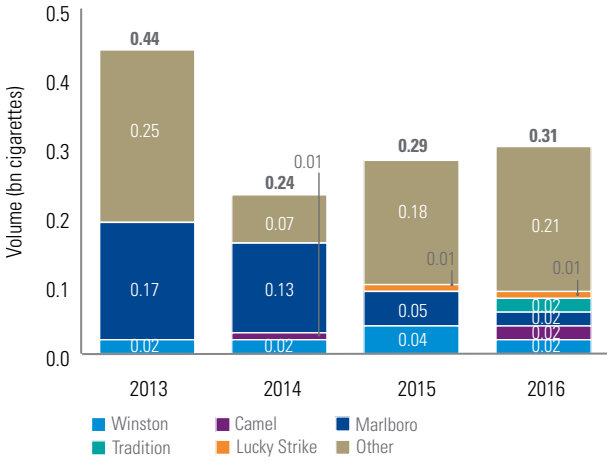
ND(L) by brand – 2013-2016[1](a)(b)(c)



C&C by country of origin – 2013-2016[1](a)(c)



C&C by brand – 2013-2016[1](a)(c)



Notes: *(a) KPMG calculates the split between C&C and ND(L) by calculating the ND(L) volumes and subtracting from the total inflows (b) In years 2014-2016 the ND(L) analysis was undertaken using border crossings and regional sales data provided by manufacturers; detail surrounding methodology changes is provided in the appendix*

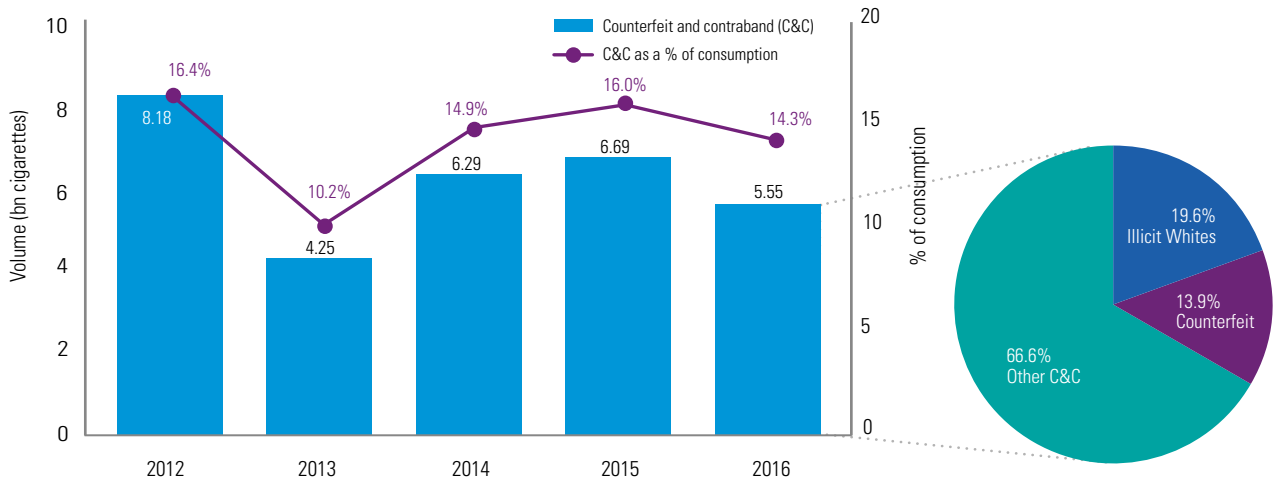
Sources: *(1) KPMG analysis of UNWTO Factbook 2012-2015, EU flows model and data sources provided by manufacturers (2) KPMG analysis of data sources provided by manufacturers*

UK

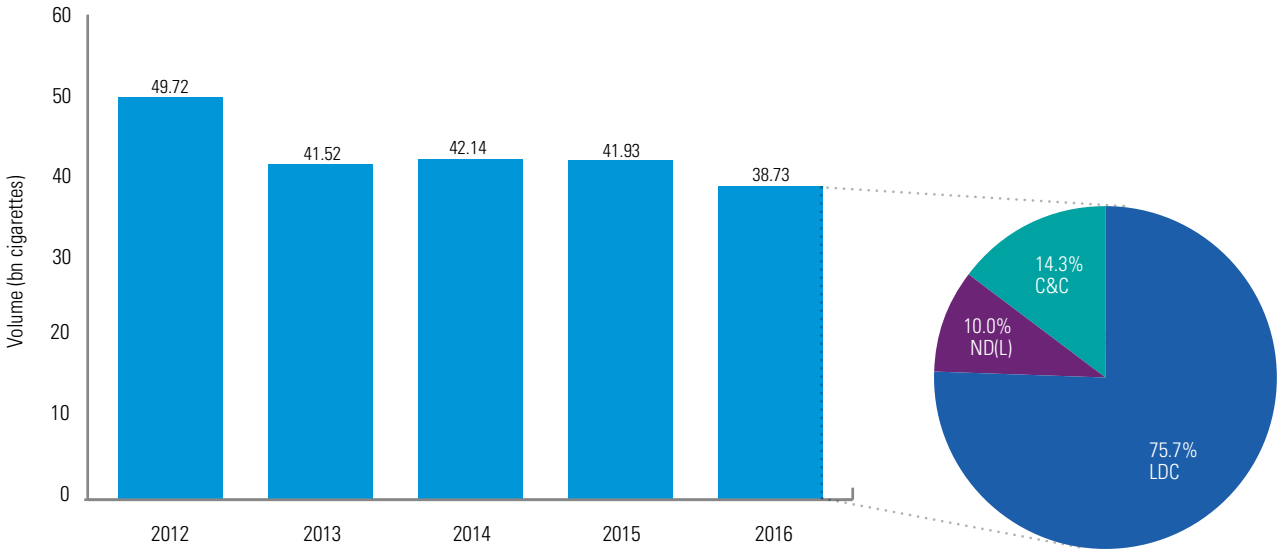
Overview

- Illicit cigarettes accounted for 14.3% of all cigarette consumption in the UK in 2016
- Despite a 17% decline in C&C volumes against a backdrop of targeted law enforcement activities, the UK remained one of the highest consumers of illicit cigarettes as a percentage of total consumption
- The largest flows of illicit cigarettes were from Poland, Belarus, Pakistan and Romania, while counterfeit continued to be a large source of total C&C (compared with other countries), accounting for 13.9% in 2016
- Illicit Whites brand flows accounted for a greater share of C&C, rising from 17.1% in 2015 to 19.6% in 2016

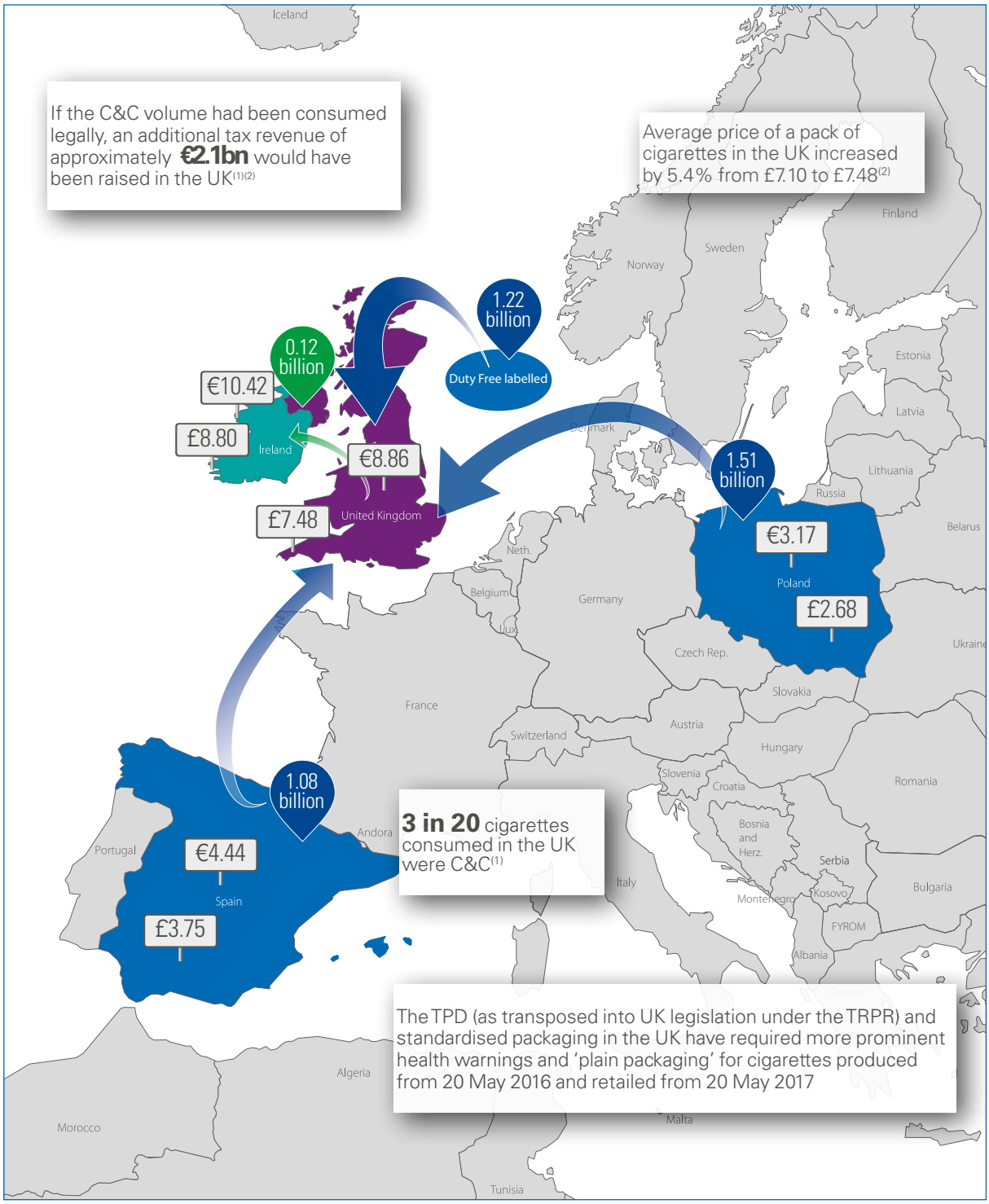
Manufactured cigarette C&C volumes and share of overall cigarette consumption – 2012-2016



Manufactured cigarette consumption – 2012-2016



Key inflows and outflows



Note: *(a) Map shows major flows. Countries which are both source and destination countries are coded according to the larger flow*

Sources: *(1) KPMG EU Flows Model and analysis of data sources provided by manufacturers (2) EC Excise Duty tables (Part III – Manufactured Tobacco*

Manufactured cigarette consumption, inflows and outflows

Total manufactured cigarette consumption – 2012-2016[1][2][a][b]

TOTAL UK CONSUMPTION						
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**	**2015-16 %**
Legal domestic sales (LDS)	40.55	35.77	33.78	32.06	29.64	(8%)
Outflows	-0.37	-0.28	-0.31	-0.33	-0.32	(2%)
Legal domestic consumption (LDC)	40.19	35.49	33.47	31.73	29.32	(8%)
Non-domestic legal (ND(L))	1.36	1.78	2.39	3.51	3.86	10%
Counterfeit and contraband (C&C)	8.18	4.25	6.29	6.69	5.55	(17%)
Total non-domestic	9.54	6.03	8.67	10.20	9.41	(8%)
Total consumption	**49.72**	**41.52**	**42.14**	**41.93**	**38.73**	**(8%)**

Due to a revision of the 2015 LDS figure from 32.06 to 31.40 during 2016, the revised LDS decline is 6%

- Inflows predominantly came from countries of origin which have high UK immigrant populations or from major tourist destinations for UK travellers
  - Flows increased from the lower priced EU countries of Poland and Spain, where average prices were €3.17 and €4.44 respectively, against average UK prices of €8.86 (£7.48)
  - Flows of Duty Free labelled cigarettes were largely supported by travel between the UK and non-EU countries
- Outflows were stable at 0.3 billion and remained among the lowest in the EU, reflecting the high UK prices

Total inflows by country of origin – 2012-2016[1][c][d]

ND INFLOWS TO THE UK					
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**
Poland	1.72	0.89	1.23	1.38	1.51
Duty Free labelled	0.91	0.77	1.55	1.99	1.22
Spain	1.04	0.50	0.72	0.91	1.08
Counterfeit	0.08	0.18	0.26	0.75	0.77
Romania	0.19	0.05	0.17	0.71	0.67
Other	5.59	3.65	4.75	4.46	4.16
Total Inflows	**9.54**	**6.03**	**8.67**	**10.20**	**9.41**

Total outflows by destination country – 2012-2016[1]

OUTFLOWS FROM THE UK					
Billion cigarettes	**2012**	**2013**	**2014**	**2015**	**2016**
Ireland	0.14	0.06	0.08	0.08	0.12
Netherlands	0.15	0.14	0.16	0.16	0.11
France	0.02	0.04	0.02	0.01	0.04
Switzerland	0.00	0.00	0.00	0.00	0.01
Germany	0.01	0.01	0.00	0.01	0.01
Other	0.06	0.03	0.05	0.07	0.04
Total Outflows	**0.37**	**0.28**	**0.31**	**0.33**	**0.32**

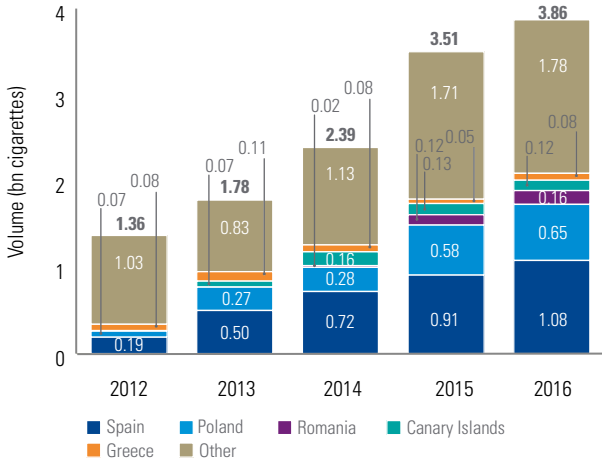
Notes: *(a) In years 2012-2016 non-domestic incidence is stated on sticks basis; prior to this a packs basis was used (b) Illicit Whites with no country specific labelling comprise Illicit Whites labelled as "Duty free" and "Unspecified". Data from previous years reflects the same definition; please refer to the appendix for full methodology (c) The Duty Free and Unspecified inflows exclude Illicit Whites which have Duty Free labelling and unspecified labelling*

Sources: *(1) KPMG EU Flows Model and analysis of data sources provided by manufacturers (2) KPMG analysis of UNWTO Factbook 2012-2015 (3) KPMG analysis of EC Excise Duty tables, January 2017 (Part III – Manufactured Tobacco) and data sources provided by manufacturers*

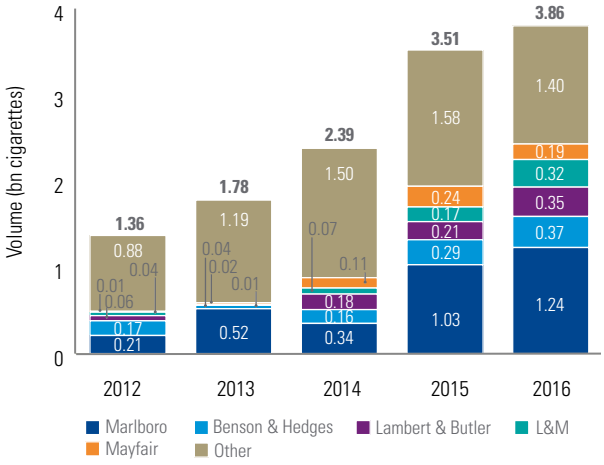
ND(L) and C&C flows

- ND(L) increased as a proportion of total consumption from 8.4% to 10.0% between 2015 and 2016 as both UK inbound and outbound journeys increased by 6%[(1)]
  - Growth in ND(L) from Poland, where prices are cheaper than in the UK, was supported by an estimated 17% increase in journeys from Poland to the UK[(1)]
  - Duty Free ND(L) flows increased by 15%, supported by increased travel flows especially from the United States and the Canary Islands, which together accounted for almost half of Duty Free ND(L) flows to the UK in 2016
- C&C declined by 1.1 billion, largely due to a fall in total Duty Free labelled volumes and inflows from Pakistan (almost exclusively John Player Gold Leaf branded)
- The largest C&C volumes were from Poland, Belarus, Pakistan and Romania; travel volumes and the legal allowance for cigarettes per trip do not support the total volume of cigarette flows identified

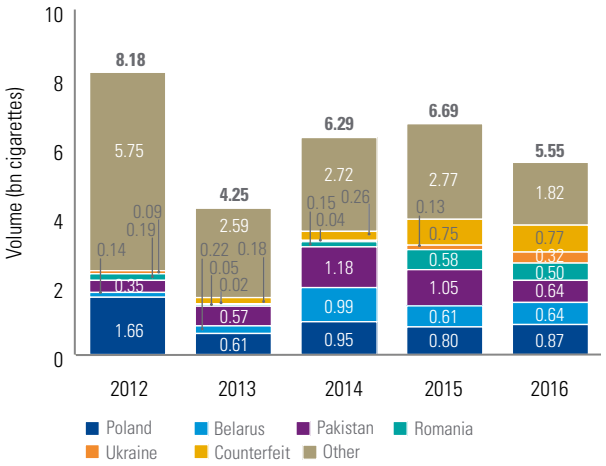
ND(L) by country of origin – 2012-2016[(1)(a)(b)]



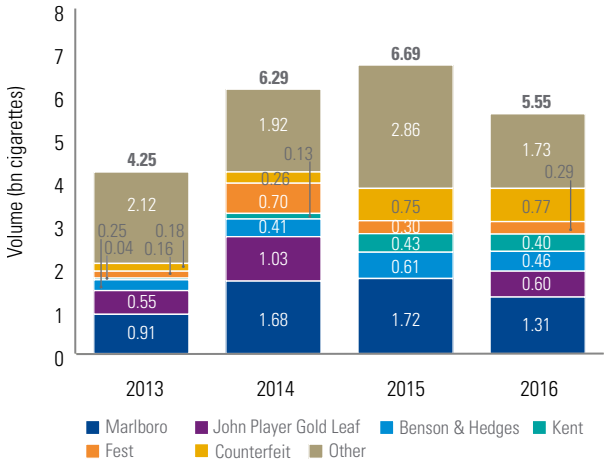
ND(L) by brand – 2012-2016[(1)(a)]



C&C by country of origin – 2012-2016[(1)(a)]



C&C by brand – 2013-2016[(1)(a)]



Notes: *(a) KPMG calculates the split between C&C and ND(L) by calculating the ND(L) volumes and subtracting from the total inflows (b) For the years 2014-2016, the ND(L) analysis was undertaken using border crossings and regional sales data provided by manufacturers; detail surrounding methodology changes is provided in the appendix (c) Additional information about the process for identifying Illicit Whites is provided in the appendix*

Sources: *(1) KPMG analysis of UNWTO Factbook 2012-2015, EU flows model and data sources provided by manufacturers (2) Weighted averaged price calculated for a pack of 20 cigarettes using EC Excise Duty tables (Part II - Manufactured Tobacco), January 2017 and data sources provided by manufacturers*

Methodology and Appendices 2016

Contents

Methodology

Overview

KPMG has developed and refined its methodology for quantifying counterfeit and contraband incidence across the 28 EU markets since 2006, with Norway and Switzerland included in the study since 2014	The methodology has been tested extensively and refined to ensure that it delivers the most robust and justifiable results possible • Our approach integrated multiple sources and custom-built analytical tools • In 2016, Project SUN was commissioned by the Royal United Services Institute (RUSI). 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'). This extension has provided access to previously unavailable data sources including Legal Domestic Sales data and proprietary consumer surveys owned by manufacturers who participated for the first time in 2013. These data sources have been used in the 2013, 2014, 2015 and 2016 reports
The methodology is based primarily on objective evidence from LDS and EPS results, which are inputted to the bespoke EU Flows Model	The KPMG EU Flows Model is a dynamic, iterative model that is based on LDS and EPS results and is used to estimate overall manufactured cigarette volumes • The KPMG EU Flows model has been developed by KPMG to specifically measure inflows and outflows of cigarettes between EU countries for the purpose of this report. It is an iterative data driven model that uses LDS and EPS results to estimate the volume of non-domestic outflows and inflows to and from each EU Member State, Norway and Switzerland • LDS are the starting point of the methodology, from which outflows of legal sales to other countries are then subtracted to estimate legal domestic consumption • Non-domestic inflows from other countries are then added in to give an estimate for the total consumption within a market • This methodology has been developed by KPMG for the manufactured cigarettes market specifically. For that reason, an assessment of the OTP market (both legal and illicit) is excluded from the scope of this report
EPS results provide a robust indication of the incidence of non-domestic and counterfeit packs and country of origin	EPS relies purely on physical evidence, avoiding the variability of consumer bias found in interview-based methods • The EPSs were conducted by independent market research agencies on a consistent basis across all the EU markets, Norway and Switzerland, allowing for direct comparison of data and the identification of inflows and outflows between all of the countries analysed • Over 500,000 packs were collected in 2016 as part of this research[a] • Further detail regarding the reliability and validity of EPS, the sampling approach and results by country at a regional level are provided later in this document
Tourism & travel trends are used to quantify 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 • World Tourism Organisation[1] data is the primary source used to identify travel trends, supplemented with other publicly available data • European Commission releases[2] are used to calculate changes in the weighted average price of a pack of cigarettes between countries. Where flows come into a country from a higher priced country they are assumed to be 100% legal

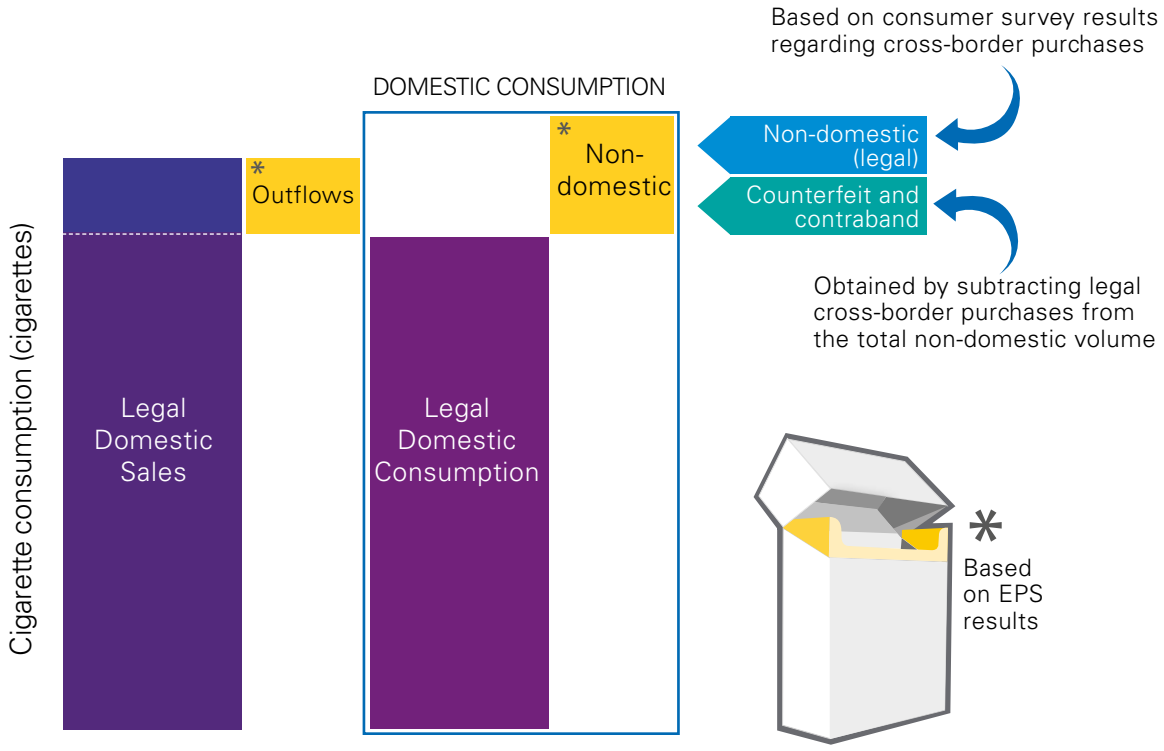
Note: *(a) Over 500,000 packs were collected as part of the YBS in Germany; however once weighted, the survey is presented in 120,000 data lines*

Sources: *(1) UN WTO Tourism Factbook 2012-2016*
(2) European Commission Excise Duty tables (Part III – Manufactured Tobacco)

Methodology - Overview

There are some specific limitations in the Project SUN 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 (OTP) and legal domestic product flows out of the EU - source limitations include the availability of information and the potential errors inherent with any data sources such as sampling criteria, coverage issues and seasonality factors
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 Model appeared reasonable, however, in a limited number of instances, specific adjustments were made to country-to-country flows where additional data provided by manufacturers allowed for further refinement of the analysis

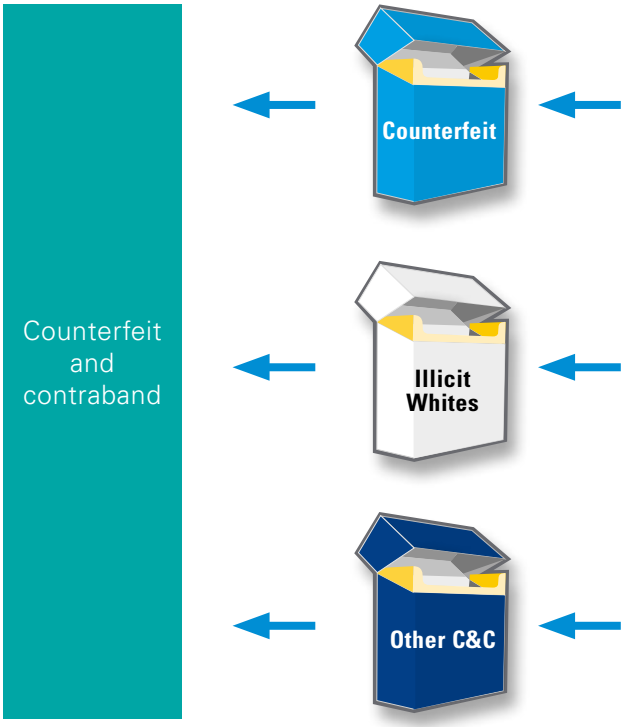
Project SUN uses LDS, EPS results and other consumer research to estimate the volume of C&C cigarettes consumed in the EU



The Project SUN methodology was developed by KPMG. It has been deployed on a consistent basis since 2006, enabling comparisons to be made between counterfeit and contraband volumes from year to year.

Methodology - Overview

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



Counterfeit packets are identified by those manufacturers participating in the given wave of EPS research. Each manufacturer analyses their own packaging for 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 during their transit 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 determining Illicit Whites brand flows using specific criteria described on page number 178

'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 Project SUN results

Over 50% of product identified within the SUN 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 the different findings:

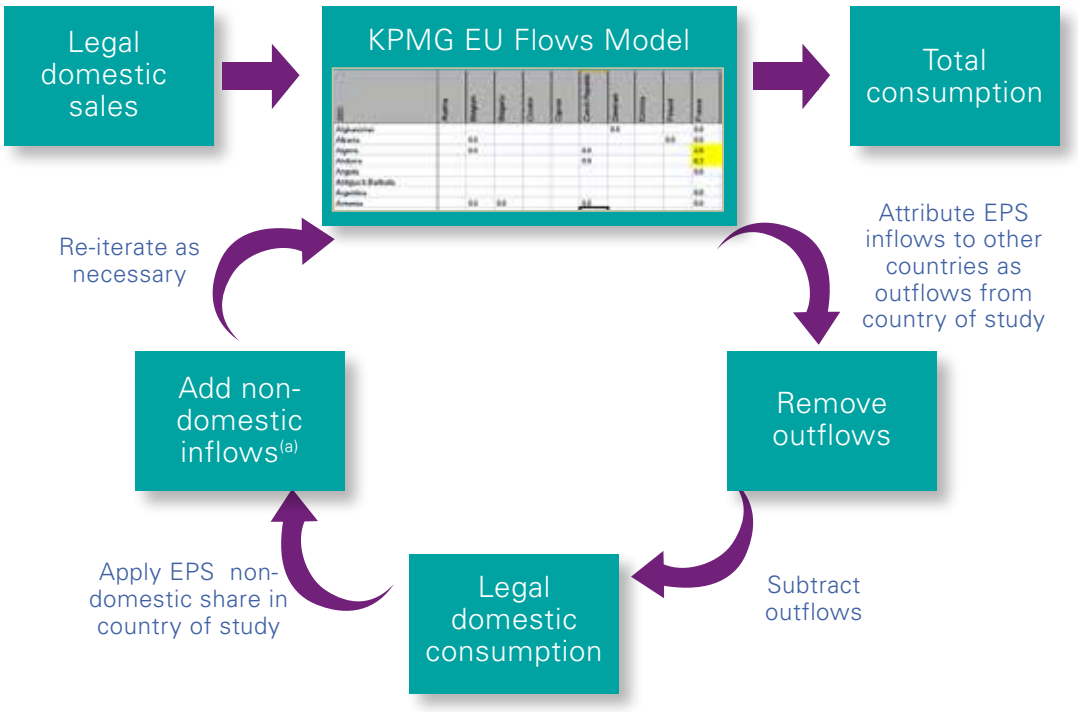
- Illicit Whites brand flows and counterfeit cigarettes tend to be transported in large volumes
  - Illicit Whites brand flows are not subject to the same high level of supply chain controls as those of genuine international brands. This means that product can be legally manufactured in one country, mainly outside of the EU, imported and distributed illegally in bulk within another country. This results in high volume seizures
  - Counterfeit cigarettes are usually seized within transport containers or are identified during law enforcement raids on the factories in which the product is manufactured. This often results in large volumes of counterfeit cigarettes being seized
- The remaining 'other C&C' is generally only available through legitimate Point of Sale locations as a Duty Paid product in a country. This means it is generally not transported in high volumes, resulting in the flow entering countries over and above legal allowances. This high frequency but low volume approach, sometimes referred to as "bootlegging", makes detection more difficult
- As the vast majority of 'other C&C' seems to be 'bootlegged', even if the smuggled product is seized by law enforcement agencies, volumes are usually below 50,000 cigarettes and are likely not notified to OLAF to be included in their seizure data

Note: *(a) Cigarette packs of brands that are not trade mark owned by participant manufacturers are not analysed and are all considered to be genuine*
Source: *(1) OLAF, Q&A Fighting the illicit trade of tobacco products, 14 August 2015*

Methodology - KPMG EU Flows Model

Methodology - KPMG EU Flows Model

Primary information sources and tools – EU Flows Model



The KPMG EU Flows Model is a dynamic, iterative model that is principally based on LDS and EPS results

- LDS volumes are the starting point of the model 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 model is then re-iterated as necessary reflecting the relationship of inflows and outflows between all 28 EU countries, Norway and Switzerland
- EPS results provide a measurement of the share of non-domestic packs by country of origin in all markets
  - EPS results provide a consistent source across all 30 markets of non-domestic packs by country of origin from which we can calculate 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 overleaf .

Methodology - LDS

Methodology - LDS

LDS data was provided to KPMG by the industry and was built up on an individual brands basis

- Where available, each manufacturer's LDS estimates were used for both the total market volumes and for their own sales
- Before 2013, Nielsen estimates were used for all non-PMI brands. The availability of sales by country and brand from all four manufacturers starting in 2013 has facilitated a more detailed analysis of LDS which has been added to the KPMG EU Flows model. JTI's LDS estimates were not available for 2016
- KPMG uses either Nielsen estimates or publicly available sources for brands not owned by BAT, ITL or PMI

Manufacturer's estimate of their own brands used to model total sales

Example LDS methodology [1][a]

Country 1	BAT		ITL		PMI		Nielsen	Section	Combined	
Brand name	LDS (bn sticks)	Market share (%)	LDS (bn sticks)	Market share (%)	LDS (bn sticks)	Market share (%)	LDS (bn sticks)		LDS (bn sticks)	Market share (%)
Brand A					5.25	20.8%		PMI	5.25	21.0%
Brand B	4.50	18.4%						BAT	4.50	18.0%
Brand C								Nielsen	3.80	15.2%
Brand D			3.10	12.5%				ITL	3.10	12.4%
Brand E			2.40	9.7%				ITL	2.40	9.6%
Brand F								Nielsen	2.20	8.8%
Brand G	1.50	6.1%						BAT	1.50	6.0%
Brand H							1.00	Nielsen	1.00	4.0%
Brand I					0.75	3.0%		PMI	0.75	3.0%
Brand J			0.50	2.0%				ITL	0.50	2.0%
Total market (bn sticks)	24.50		24.75		25.30				25.00	100.0%

Nielsen data used for brands not owned by BAT, ITL or PMI

Modelled LDS figure compared to manufacturer estimates

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

- In certain markets, publicly available estimates of legal manufactured cigarette sales are widely used by manufacturers, industry participants, government bodies and non-governmental organisations
- In these instances, it has been deemed more appropriate to incorporate these recognised estimates of LDS in the KPMG EU Flows model. This is the case with:
  - Belgium: figures from official customs data
  - Bulgaria: figure reported by the Customs Agency
  - Spain: figure reported by the Tobacco Commissioner

Note: *(a) Example volumes included do not reflect actual sales data and are for illustrative purposes.*
Sources: *(1) LDS data provided by all four manufacturers.*

Methodology - EPS

Methodology - EPS

Overview	**EPS 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 (non-duty paid) and counterfeit packs in each of the markets** • EPSs were conducted by independent market research agencies (e.g. Nielsen, Ipsos or MSI) in each of the countries sampled. The surveys are commissioned by the participating manufacturers and the sampling plan is designed by the agencies in conjunction with the manufacturers to help make the sampling plan statistically representative within each given country • Results were based on a large sample of packs collected in various population centres throughout the countries, although the exact collection plan differs by country. Accuracy and credibility of results is driven by sound design of the sampling plan • Results are not subject to respondent behaviour and are therefore less prone to sampling errors than many other alternative methodologies • Results reflect actual overall non-domestic share and provide a good snapshot of brands consumed
Process	**EPSs rely purely on physical evidence, avoiding the variability of 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 we record these 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 inks, paper and other characteristics • KPMG used the results of the EPSs to extrapolate overall consumption in the market using LDS and the percentage of non-domestic cigarettes in the market as found through EPSs to calculate overall consumption • The process is repeated across all countries of study using a model which iterates the level of non-domestic cigarettes until all inflows and outflows are equal
Coverage	**Coverage per market is tailored to the size of the market, the likelihood of high non-domestic incidence and the manufacturers' share of the legal market** • Large surveys (10,000 packs or more collected): Austria, Bulgaria, Czech Republic, France, Germany, Greece, Hungary, Ireland, Italy, Lithuania, Netherlands, Poland, Spain, Sweden, Romania, UK • Medium surveys (5,000-9,999 packs): Belgium, Denmark, Estonia, Finland, Latvia, Norway, Slovakia, Switzerland • Small surveys (300-4,999 packs): Croatia, Cyprus, Luxembourg, Malta, Portugal, Slovenia

Methodology - EPS

Calculation of non-domestic incidence on a stick basis in 2012 – 2016

Overview	**Prior to 2012, the KPMG EU Flows Model assumed that all packs collected were the same size (20 cigarettes). In 2012 the model was updated to take into account different pack sizes, and this approach has been continued in 2013, 2014, 2015 and 2016** • 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	**EPS 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 was dependant upon whether the typical domestic pack size was greater or less than the average pack size of 20 on a country by country basis** • The average pack contains 20 cigarettes • In countries where the average domestic pack size was less than 20 cigarettes (for example, most LDS in the UK and Italy are of 10 or 20 cigarette packs, giving an average domestic pack size of less than 20 cigarettes, and in Denmark domestic cigarettes are sold in packs of 19), then the conversion to a sticks basis is likely to decrease the proportion of domestic cigarettes in the EPS sample, giving a higher non-domestic incidence than estimating on a pack basis • In countries where the average domestic pack size is greater than 20 cigarettes (for example in Luxembourg domestic packs typically contain 20, 25 or 30 cigarettes), then the conversion to a sticks basis is likely to increase the proportion of domestic cigarettes in the EPS sample, giving a lower non-domestic incidence than estimating on a pack basis

Methodology - EPS

EPS example sample plan

Empty Pack Survey Methodology

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

1. Population centre selection

- The population centres chosen are representative of the country of study. Each population centre is divided into five sectors (north, south, east, west and centre). Each sector is subdivided into neighborhoods 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 118 cities are sampled in each wave of 11,500 packs. Of all packs collected, 2320 are collected in Paris, which represents over 10% of the packs collected and sample sizes. The neighbourhoods sampled include residential, commercial and industrial areas
- A minimum number of packs are collected from each neighbourhood. Each neighbourhood has a specific starting point and a fixed route. The collectors accumulate as many empty packs as possible within each neighbourhood regardless of the quota requested in the sampling plan. Packs are collected from any manufacturer regardless of whether they participate in the survey. Collectors revisit the neighbourhood as many times as necessary in order to achieve the required quotas
- The training of collectors includes an explanation of the methodology and running of pilots prior to the collection. Each team of collectors is supervised by a team leader
- An additional 5% extra packs are collected in case there are issues with the existing sample

3. Pack processing

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

4. Pack analysis

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

Methodology - EPS

EPS adjustments

Adjustments are made to the EPS in the form of reweighting different packs or quarterly surveys, based on additional evidence provided by manufacturers. Adjustments are made to correct for issues identified in the EPS. The main issues identified are covered below:

EPS	Explanation	Method	Countries where adjustment made
1. Brand oversampling	Domestic packs collected by brand in the EPS deviate significantly from the domestic brand shares	• Premium brands may be oversampled which we can check through a comparison with the LDS • KPMG assumes that an oversampling of premium brands domestically will result in an oversampling of non-domestic brands. As a result, it down-weights all packs from this brand (domestic and non-domestic) by the domestic market share	France, Ireland, Netherlands, Norway, Slovenia, Sweden, Switzerland
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 are made to survey results based on the time of year that the survey was undertaken to make it more reflective of the whole year • For example, if a survey is undertaken before a price increase which may impact sales between a country, this is likely to increase the volume of packs collected for the country. In this case, where there is more than one survey, an adjustment can be made by KPMG to make one survey result account for a higher proportion of the overall year compared with others • Seasonal adjustments can also be made to take account of increased tourism and travel between countries during the summer months. In France, an adjustment is made to take account of increased traveller numbers to Spain between June and September, when the EPS is undertaken in May and November	France, UK and Luxembourg
3. Pack size adjustment	Certain domestic pack sizes are often over-sampled, resulting in an overstating of non-domestic product	• In the UK and Italy where 10-packs are a sizeable proportion of the market, more 10-packs than 20-packs are often collected. The impact of this is to over-report the number of non-domestic sticks • The domestic 10-packs and other pack sizes collected are re-weighted by KPMG to ensure that they are representative of the domestic market	UK and Italy
4. Sweden "domestic whites" EPS adjustments	Addition of "domestic whites" volume to non-domestic consumption	• In Sweden an adjustment is made to the non-domestic percentage based on the amount of "domestic whites" as reported by HUI Research and outlined in the Sweden report	Sweden

Methodology - EPS

EPS adjustments

Country	Sample dates	Packs collected	Number of cities	Adjustment	Impact
Austria	Q2: Apr-May Q4: Nov	13,002	24	None	n/a
Belgium	Q2: April-May Q4: Nov	5,600	18	n/a	n/a
Bulgaria	Q2: AprQ4: Sep-Nov	13,000	30	None	n/a
Croatia	Q4: Oct	3,000	8	None	n/a
Cyprus	Q4: Oct	1,000	4	None	n/a
Czech Republic	Q2: April Q4: Sep	21,004	30	None	n/a
Denmark	Q2: Mar-Apr	5,500	9	None	n/a
Estonia	Q2: April Q4: Sep	6,600	14	**Adjustment to country flows** C&C inflows to Estonia declined in 2014 and 2015. EPS data showed a decline in the volume of C&C in each survey since 2014, suggesting a quarter-on-quarter decline in C&C Based on the assumption that the decline in C&C occurred throughout the year, Q2 EPS results were used to represent the first three quarters of 2016, and Q4 to represent the fourth quarter	C&C decreased from 0.25bn to 0.22bn
Finland	Q2: April	5,800	13	**Adjustment to country flows** a) Inflows from Russia were adjusted. EPS over-represented Russian packs as it was undertaken in Q2, before the implementation of the act in August 2016, that limits the amount of tobacco that travellers from country outside European economic areas were allowed b) Inflows from Estonia were under-represented as the EPS was undertaken in Q2, which is a comparatively low travel season	a) Inflows from Russia reduced from 0.17 billion to 0.11 billion b) Inflows from Estonia increased from 0.16 billion to 0.27 billion
France	Q2: Apr-May Q4: Oct-Nov	23,000	118	**Brand adjustment** Marlboro was over-sampled and therefore re-weighted according to its domestic share **Adjustment to country flows** a) Inflows from Spain were adjusted to reflect the tourism trend and border sales b) The Q4 sample appeared to overweight flows from Algeria that were not aligned to market conditions for the second half of the year.	The brand adjustment reduced flows of non-domestic Marlboro by 1.56 billion a) Inflows from Spain 1.6 billion to 2.6 billion b) Inflows from Algeria decreased from 5.11 billion to 3.19 billion
Germany	Every month	120,000	24 stations and other areas covered	Additional information has been provided in the Yellow Bag Survey results for 2016 which has allowed a more accurate estimate of cigarette consumption in Germany	Reduction from approximately 18.0% non-domestic to 17.4%

Methodology - EPS

EPS adjustments

Country	Sample dates	Packs collected	Number of cities	Adjustment	Impact
Greece	Q2: April Q3: Sep	14,000	30	None	n/a
Hungary	Q2: May-Jun	19,895	53	None	n/a
Ireland	Q1: Feb Q2: Apr-May Q3: Jul-Aug Q4: Oct	20,000	22	**Brand adjustment** Marlboro was over-sampled and therefore re-weighted according to its domestic share	Reduction of 0.11bn of non-domestic Marlboro
Italy	Q1: Feb Q3: Jul-Aug Q4: Oct-Nov	40,000	42	**10-pack adjustment** 43% of domestic packs collected were 10-packs whilst 21% of the market was represented by 10-packs, as a result the domestic 10-packs were down-weighted and the 20-packs were up-weighted, resulting in more domestic sticks and a lower percentage of non-domestic	Reduction of non-domestic share from 7.78% to 6.89%
Latvia	Q2: April Q4: Sep-Oct	9,800	25	None	n/a
Lithuania	Q2: April Q3: Jul Q4: Sep	19,200	26	None	n/a
Luxembourg	Q2: Apr-May Q4: Nov	400	2	None	n/a
Malta	Q4: Oct	1,000	8	None	n/a
Netherlands	Q1: Mar Q2: Feb Q3: Apr-May Q4: Sep-Oct	28,000	52	**Brand adjustment** Marlboro was over-sampled and therefore re-weighted according to its domestic share	Reduction of 0.16 billion of non-domestic Marlboro
Norway	Q2: May	5,000	8	**Brand adjustment** Marlboro was over-sampled and therefore re-weighted according to its domestic share	Reduction of 0.13bn of non-domestic Marlboro
Poland	Q2: April Q3: Aug Q4: Oct	51,000	70	None	n/a
Portugal	Q2: April-May	3,000	10	None	n/a
Romania	Q1: Jan-Mar Q2: May-Jun Q3: Sep Q4: Oct-Nov	15,152	41	None	n/a
Slovakia	Q2: April	12,800	39	None	n/a

Methodology - EPS

EPS adjustments

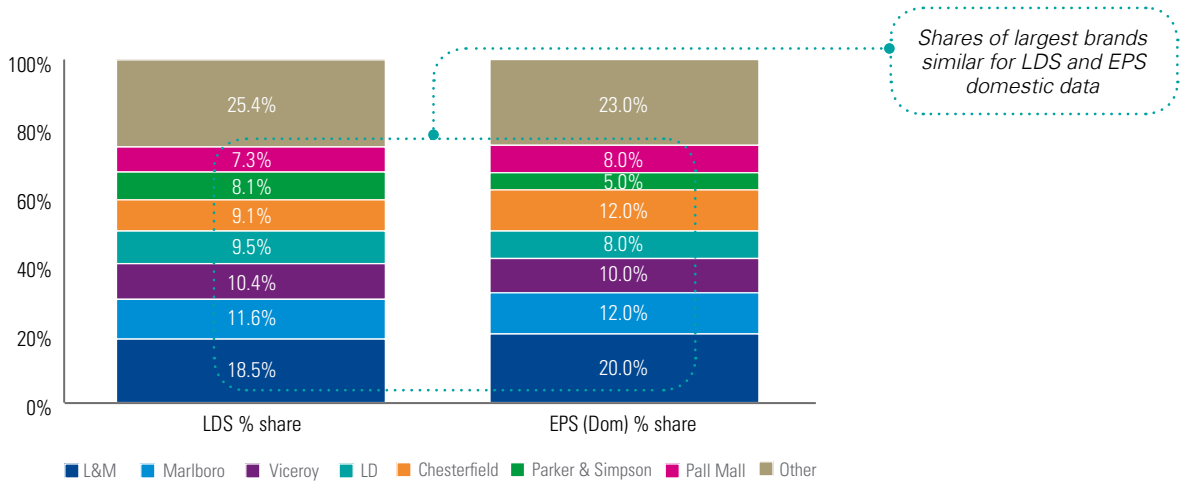
Country	Sample dates	Packs collected	Number of cities	Adjustment	Impact
Slovenia	Q4: Oct	3,000	8	**Adjustment to country flows** ND incidence in Maribor was down-weighted to 2015 levels as an international event held in Maribor during the 2-week collection period in October 2016 led to an oversampling of ND **Brand adjustment** Marlboro was over-sampled and therefore re-weighted according to its domestic share	Total ND in Slovenia reduced from 0.43 to 0.38 billion Reduction of 0.01 billion of non-domestic Marlboro
Spain	Q2: April- May Q4: Oct	30,000	58	None	n/a
Sweden	Q2: Mar-Apr	10,000	29	**Addition of domestic whites** Addition of "domestic whites" as reported by HUI Research in Sweden **Brand adjustment** Marlboro was over-sampled and therefore re-weighted according to its domestic share	0.6% was added to the overall non-domestic consumption in order to include "domestic whites" Reduction of 0.05 billion of non-domestic Marlboro
Switzerland	Q2: May-Jun	5,000	25	**Brand adjustment** Marlboro was over-sampled and therefore re-weighted according to its domestic share	Reduction of 0.11 billion of non-domestic Marlboro
UK	Q1: Mar Q2: Apr-May Q3: Jul-Aug Q4: Sep-Oct	50,800	105	**Pack size adjustment** Whilst 10-packs represented 31% of the market, 54% were collected in the EPS. Pack sizes were therefore re-weighted to ensure that they are representative of the domestic market. This resulted in a lower level of non-domestic cigarettes. **Adjustments to country flows** Inflows from Spain were adjusted as the EPS did not account for the summer months where sales are higher. This adjustment was made based on the increase in sales volumes provided by industry participants.	Reduction of non-domestic share from 26.0% to 24.3% Inflows from Spain increased from 0.38 billion to 1.08 billion

Methodology - EPS

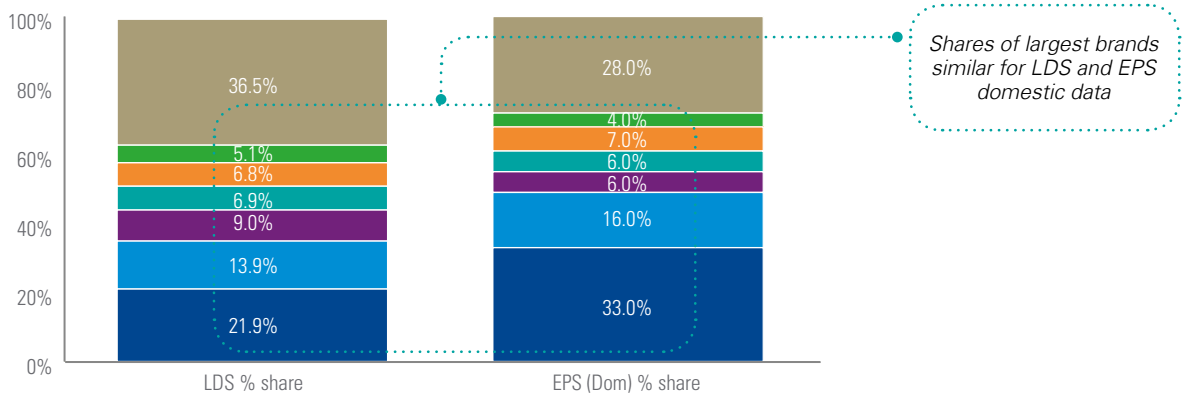
As collateral for the EPS, the brand shares of domestic origin packs collected during the EPSs closely reflect the brand shares seen in the LDS data

- If brand shares of domestic origin packs closely reflect the brand shares seen in LDS, EPSs are considered reflective of actual consumption in a market
- This provides additional confidence that the packs identified as non-domestic also fairly reflect the volume and brands actually consumed in that market (see exceptions on next page)
- As the EPSs collect any brand and market variant, there is no bias towards any specific brand being collected
- Two examples are shown below, for Poland and Austria

Comparison of LDS and domestic EPS brand share, using illustrative data – Poland[(a)(1)(2)]



Comparison of LDS and domestic EPS brand share, using illustrative data – Austria[(a)(1)(2)]



Note: *(a) Number of 'top' brands shown chosen to reflect approximately two thirds of the total market on an LDS and EPS basis*
Sources: *(1) Analysis of LDS data provided by participating manufacturers in the given wave of EPS*
(2) Independent agency Empty Pack Surveys, 2006-2014

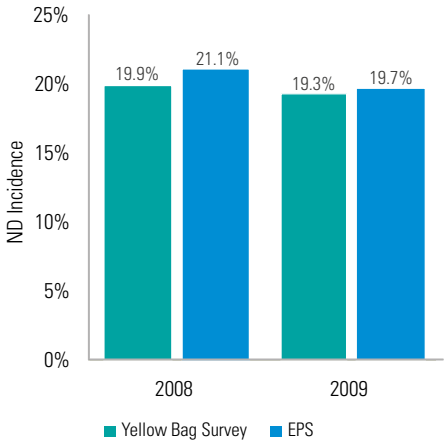
Methodology - EPS

EPS comparison

Validation of empty pack survey analysis

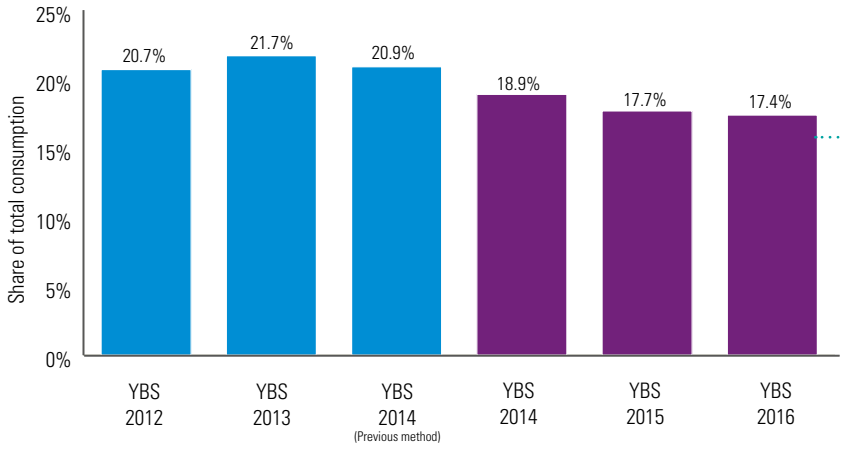
- A criticism of the empty pack survey is that it samples discarded cigarette packs rather than household waste and therefore significantly overstated non-domestic incidence. Sampling for household waste is impractical in most countries, however it is available in Germany. The household waste survey,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

Comparison of EPS and Yellow Bag Survey, Germany - 2008-2009[(1)(2)(a)]



- In addition to the benefits of the higher sample size, collections from waste disposal centres resulted in packs coming from both household waste and public bins, demonstrating that consumption of illicit tobacco in the home is unlikely to be significantly different to consumption in public places. This helps to address a common criticism of the EPS
- This enables us to compare the results of the Yellow Bag Survey with the EPS to understand differences in the amount of non-domestic product that is captured

Germany historical Yellow Bag Surveys[(2)(a)]



The change in 2016 is reflective of the new methodology designed to further improve coverage and representation in Germany

Improvement of German pack analysis in 2014, 2015 and 2016

- In 2014 the German pack collection was refined as fewer waste disposal centres were providing pack collections. Despite weighting the pack collections from each disposal centre according to the population of the region, some regions were not being represented
- As a result, a pack collection was started in 2014 in areas with no coverage from waste recycling centres. This has resulted in a much greater proportion of the German population covered, from 40% to close to 100% of the population
- The result of the change in methodology has been to reduce the overall non-domestic incidence by approximately 2 percentage points compared to the collection in previous years
- In 2016, additional data on the average number of sticks was provided, which has allowed us to more accurately estimate cigarette consumption in Germany

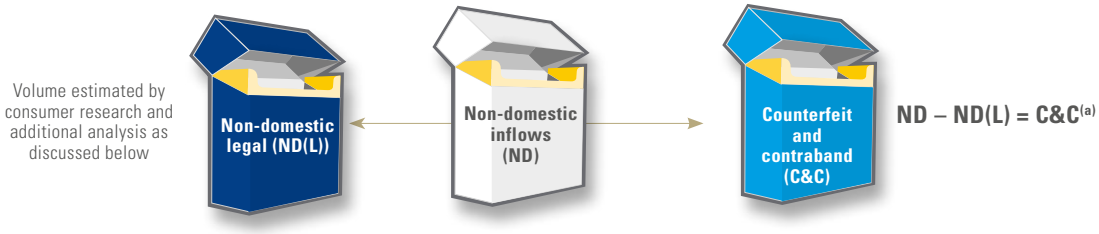
Note: *(a) The comparison between methodologies is made on a "sticks basis" in 2008 and 2009 rather than the packs basis reported in Project SUN and in the chart below*

Sources: *(1) MSIntelligence Research, Germany Empty pack survey report, Q2 2009 (2) Ipsos Empty Pack Surveys, 2008-2009.*

Methodology - Non-domestic legal analysis

Methodology - Non-domestic legal analysis

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



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

- ND(L) was calculated using 2 methods:

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

- Non-domestic product found in Empty Pack Surveys from higher priced inbound tourist/visitor countries was categorised as legal

2) Use of travel flows analysis

- Business and tourism travel data from the World Tourism Organization (UNWTO), national statistics offices and other publically available sources were used to calculate the number of trips made by travellers over the age of 18
- This total number of trips was then multiplied by the average smoking prevalence of the country of origin to calculate the total number of trips where cigarettes are purchased. Smoking prevalence data was provided by Euromonitor
- It was assumed that the number of packs purchased per trip is equal to the Duty Free allowance, or the indicative legal limit for intra-EU travel
- The EPS and EU Flows model 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 model it is capped at the volume generated by the EU flows model
- 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 and travel retail sales data

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

ND(L) is 100% of total non-domestic	=>	ND from EU Flows model	=	**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

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+ (2)	Smoking prevalence	Trips where cigarettes purchased (m)	Cigarettes per trip(b)	ND(L) (bn sticks)	% of ND
UK	0.62	8.63	78.6%	19.7	1.34	200	0.27	43%

Notes: *(a) KPMG calculates the split between C&C and ND(L) by calculating the ND(L) volume and subtracting from the total inflows*
(b) Unless stated otherwise it is assumed that returning travellers purchase the indicative maximum allowed
Sources: *(1) KPMG EU Flows Model (2) UN WTO Tourism Factbook 2008-14 (3) Euromonitor*

Methodology - Non-domestic legal analysis

Non-domestic Legal brand split analysis and assumptions

Illustrative example of ND(L) by brand approach

ND(L) brand split

Percentage split of border sales by brand

X

Total volume of cigarettes purchased

Having determined the volume of ND(L) using travel statistics, the brand share of each ND(L) inflow was determined by an analysis of brands sold at border shops

- Border sales data was provided to KPMG by the manufacturers who participated in the EPS in a range of formats:
  - Sales data from participants from shops on the border – which can be either the total market, or restricted to the brands that each participant sells
  - Sales data by region bordering the destination country which is often collated by Nielsen for some of the larger countries
  - Any other individual studies that participants have made which can help the overall border sales
- KPMG used all data sources available to come up with a fair representation of the overall brand split, prioritising independent border sales data provided by a third party for all brands where possible
- These border sales are used to calculate the percentage split of brand sales. It is not used in order to calculate volumes
- Where the ND(L) flow was considered 100% of the total flow, all brands from that country were allocated to ND(L) and border sales data was not analysed

Methodology - Non-domestic legal analysis

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

AUSTRIA									
Country		**# of border crossings**	**Population 18+**	**Smoking prevalence**	**Smoker trips**	**Packs per trip**	**# of cigarettes**	**ND(L) volume**	**Total ND(L)**
Czech Republic	Outbound	All flows considered legal							0.50bn
	Inbound								
Hungary	Outbound	All flows considered legal							0.40bn
	Inbound								
Slovenia	Outbound	All flows considered legal							0.37bn
	Inbound								
Germany	Outbound	All flows considered legal							0.06bn
	Inbound								
Others									0.29bn
Total									**1.63bn**

BELGIUM									
Country		**# of border crossings**	**Population 18+**	**Smoking prevalence**	**Smoker trips**	**Packs per trip**	**# of cigarettes**	**ND(L) volume**	**Total ND(L)**
Luxembourg	Outbound	All flows considered legal							0.13bn
	Inbound								
Netherlands	Outbound	All flows considered legal							0.06bn
	Inbound								
France	Outbound	All flows considered legal							0.03bn
	Inbound								
Spain	Outbound	All flows considered legal							0.02bn
	Inbound								
Others									0.23bn
Total									**0.47bn**

BULGARIA									
Country		**# of border crossings**	**Population 18+**	**Smoking prevalence**	**Smoker trips**	**Packs per trip**	**# of cigarettes**	**ND(L) volume**	**Total ND(L)**
Serbia	Outbound	0.09mn	83%	29%	0.02mn	10	200	0.00bn	0.01bn
	Inbound	0.54mn	82%	29%	0.13mn	2	40	0.01bn	
FYROM	Outbound	0.03mn	83%	29%	0.01mn	10	200	0.00bn	0.01bn
	Inbound	0.55mn	78%	42%	0.18mn	2	40	0.01bn	
Romania	Outbound	All flows considered legal							0.01bn
	Inbound								
France	Outbound	All flows considered legal							0.01bn
	Inbound								
Others									0.15bn
Total									**0.18bn**

Methodology - Non-domestic legal analysis

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

CROATIA									
Country		**# of border crossings**	**Population 18+**	**Smoking prevalence**	**Smoker trips**	**Packs per trip**	**# of cigarettes**	**ND(L) volume**	**Total ND(L)**
Montenegro	Outbound	All flows considered legal							0.006bn
	Inbound								
Serbia	Outbound	0.07mn	81%	28%	0.02mn	10	200	0.003bn	0.004bn
	Inbound	0.11mn	82%	29%	0.03mn	2	40	0.001bn	
Bosnia And Herzegovina	Outbound	0.09mn	81%	28%	0.02mn	10	200	0.004bn	0.004bn
	Inbound	0.32mn	82%	0%	0.00mn	2	40	0.000bn	
Romania	Outbound	All flows considered legal							0.002bn
	Inbound								
Others									0.016bn
Total									**0.033bn**

CYPRUS									
Country		**# of border crossings**	**Population 18+**	**Smoking prevalence**	**Smoker trips**	**Packs per trip**	**# of cigarettes**	**ND(L) volume**	**Total ND(L)**
Greece	Outbound	All flows considered legal							0.007bn
	Inbound								
Spain	Outbound	All flows considered legal							0.003bn
	Inbound								
UK	Outbound	All flows considered legal							0.003bn
	Inbound								
Italy	Outbound	All flows considered legal							0.001bn
	Inbound								
Others									0.008bn
Total									**0.022bn**

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	All flows considered legal							0.029bn
	Inbound								
Slovakia	Outbound	All flows considered legal							0.028bn
	Inbound								
Germany	Outbound	All flows considered legal							0.008bn
	Inbound								
Bulgaria	Outbound	All flows considered legal							0.007bn
	Inbound								
Others									0.091bn
Total									**0.163bn**

Methodology - Non-domestic legal analysis

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

DENMARK									
Country		**# of border crossings**	**Population 18+**	**Smoking prevalence**	**Smoker trips**	**Packs per trip**	**# of cigarettes**	**ND(L) volume**	**Total ND(L)**
Sweden	Outbound	All flows considered legal							0.035bn
	Inbound								
Poland	Outbound	0.09mn	78%	20%	0.01mn	40	800	0.012bn	0.013bn
	Inbound	0.13mn	81%	24%	0.03mn	2	40	0.001bn	
Spain	Outbound	All flows considered legal							0.011bn
	Inbound								
Germany	Outbound	All flows considered legal							0.009bn
	Inbound								
Others									0.094bn
Total									**0.162bn**

ESTONIA									
Country		**# of border crossings**	**Population 18+**	**Smoking prevalence**	**Smoker trips**	**Packs per trip**	**# of cigarettes**	**ND(L) volume**	**Total ND(L)**
Latvia	Outbound	All flows considered legal							0.015bn
	Inbound								
Lithuania	Outbound	All flows considered legal							0.003bn
	Inbound								
Russia	Outbound	0.33mn	80%	25%	0.07mn	2	40	0.003bn	0.003bn
	Inbound	0.15mn	79%	0%	0.00mn	2	40	0.000bn	
Finland	Outbound	All flows considered legal							0.002bn
	Inbound								
Others									0.013bn
Total									**0.036bn**

FINLAND									
Country		**# of border crossings**	**Population 18+**	**Smoking prevalence**	**Smoker trips**	**Packs per trip**	**# of cigarettes**	**ND(L) volume**	**Total ND(L)**
Estonia	Outbound	0.91mn	79%	15%	0.11mn	40	800	0.085	0.085bn
	Inbound	0.00mn	80%	25%	0.00mn	2	40	0.000	
Russia	Outbound	1.43mn	79%	15%	0.17mn	10	200	0.033	0.033bn
	Inbound	6.98mn	79%	0%	0.00mn	2	40	0.000	
Spain	Outbound	All flows considered legal							0.007bn
	Inbound								
Sweden	Outbound	All flows considered legal							0.007bn
	Inbound								
Others									0.076bn
Total									**0.208bn**

Methodology - Non-domestic legal analysis

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

FRANCE									
Country		**# of border crossings**	**Population 18+**	**Smoking prevalence**	**Smoker trips**	**Packs per trip**	**# of cigarettes**	**ND(L) volume**	**Total ND(L)**
Spain	Outbound	10.79mn	77%	28%	2.34mn	40	800	1.869bn	1.91bn
	Inbound	6.47mn	81%	21%	1.10mn	2	40	0.044bn	
Belgium	Outbound	Figure based on tourism statistics and border region consumption analysis							1.20bn
	Inbound								
Luxembourg	Outbound	Figure based on tourism statistics and border region consumption analysis							0.59bn
	Inbound								
Andorra	Outbound	Figure based on tourism statistics and border region consumption analysis							0.48bn
	Inbound								
Others									3.09bn
Total									**7.27bn**

GERMANY									
Country		**# of border crossings**	**Population 18+**	**Smoking prevalence**	**Smoker trips**	**Packs per trip**	**# of cigarettes**	**ND(L) volume**	**Total ND(L)**
Czech Republic	Outbound	54.41mn	83%	25%	11.51mn	21	420	4.82bn	4.82bn
	Inbound	0.53mn	81%	25%	0.11mn	2	40	0.00bn	
Poland	Outbound	33.99mn	83%	25%	7.19mn	25	500	3.59bn	3.59bn
	Inbound	0.99mn	81%	24%	0.19mn	2	40	0.01bn	
Luxembourg	Outbound	All flows considered legal							0.48bn
	Inbound								
Canary Islands	Outbound	3.16mn	83%	25%	0.67mn	20	400	0.27bn	0.27bn
	Inbound	0.00mn		0%	0.00mn	0	0	0.00bn	
Others									2.27bn
Total									**11.42bn**

GREECE									
Country		**# of border crossings**	**Population 18+**	**Smoking prevalence**	**Smoker trips**	**Packs per trip**	**# of cigarettes**	**ND(L) volume**	**Total ND(L)**
Albania	Outbound	All flows considered legal							0.036bn
	Inbound								
Bulgaria	Outbound	0.11mn	82%	41%	0.04mn	40	800	0.029bn	0.032bn
	Inbound	0.28mn	83%	29%	0.07mn	2	40	0.003bn	
Italy	Outbound	All flows considered legal							0.024bn
	Inbound								
Cyprus	Outbound	All flows considered legal							0.015bn
	Inbound								
Others									0.140bn
Total									**0.248bn**

Methodology - Non-domestic legal analysis

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

HUNGARY

Country		# of border crossings	Population 18+	Smoking prevalence	Smoker trips	Packs per trip	# of cigarettes	ND(L) volume	Total ND(L)
Germany	Outbound	All flows considered legal							0.017bn
	Inbound								
Romania	Outbound	All flows considered legal							0.014bn
	Inbound								
Ukraine	Outbound	1.26mn	82%	29%	0.29mn	2	40	0.012	0.013bn
	Inbound	0.20mn	81%	22%	0.04mn	2	40	0.001	
Czech Republic	Outbound	All flows considered legal							0.012bn
	Inbound								
Others									0.099bn
Total									**0.154bn**

IRELAND

Country		# of border crossings	Population 18+	Smoking prevalence	Smoker trips	Packs per trip	# of cigarettes	ND(L) volume	Total ND(L)
UK	Outbound	All flows considered legal							0.118bn
	Inbound								
Spain	Outbound	All flows considered legal							0.105bn
	Inbound								
Italy	Outbound	All flows considered legal							0.034bn
	Inbound								
Germany	Outbound	0.23mn	73%	21%	0.03mn	40	800	0.028bn	0.034bn
	Inbound	0.70mn	83%	25%	0.15mn	2	40	0.006bn	
Others									0.221bn
Total									**0.511bn**

ITALY

Country		# of border crossings	Population 18+	Smoking prevalence	Smoker trips	Packs per trip	# of cigarettes	ND(L) volume	Total ND(L)
Slovenia	Outbound	All flows considered legal							0.152bn
	Inbound								
Germany	Outbound	All flows considered legal							0.049bn
	Inbound								
France	Outbound	All flows considered legal							0.041bn
	Inbound								
Spain	Outbound	All flows considered legal							0.040bn
	Inbound								
Others									0.552bn
Total									**0.835bn**

Methodology - Non-domestic legal analysis

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

LATVIA									
Country		**# of border crossings**	**Population 18+**	**Smoking prevalence**	**Smoker trips**	**Packs per trip**	**# of cigarettes**	**ND(L) volume**	**Total ND(L)**
Kyrgyzstan	Outbound	All flows considered legal							0.018bn
	Inbound								
Lithuania	Outbound	All flows considered legal							0.006bn
	Inbound								
Russia	Outbound	0.24mn	81%	27%	0.05mn	2	40	0.002bn	0.002bn
	Inbound	0.56mn	79%	0%	0.00mn	2	40	0.000bn	
Estonia	Outbound	All flows considered legal							0.002bn
	Inbound								
Others									0.013bn
Total									**0.041bn**

LITHUANIA									
Country		**# of border crossings**	**Population 18+**	**Smoking prevalence**	**Smoker trips**	**Packs per trip**	**# of cigarettes**	**ND(L) volume**	**Total ND(L)**
Poland	Outbound	All flows considered legal							0.006bn
	Inbound								
Latvia	Outbound	All flows considered legal							0.004bn
	Inbound								
Germany	Outbound	All flows considered legal							0.001bn
	Inbound								
Belarus	Outbound	0.00	81%	21%	0.00	2	40	0.00001	0.001bn
	Inbound	0.16	80%	25%	0.03	2	40	0.00132	
Others									0.021bn
Total									**0.033bn**

LUXEMBOURG									
Country		**# of border crossings**	**Population 18+**	**Smoking prevalence**	**Smoker trips**	**Packs per trip**	**# of cigarettes**	**ND(L) volume**	**Total ND(L)**
France	Outbound	All flows considered legal							0.021bn
	Inbound								
Germany	Outbound	All flows considered legal							0.014bn
	Inbound								
Belgium	Outbound	All flows considered legal							0.013bn
	Inbound								
Portugal	Outbound	All flows considered legal							0.011bn
	Inbound								
Others									0.037bn
Total									**0.096bn**

Methodology - Non-domestic legal analysis

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

MALTA									
Country		**# of border crossings**	**Population 18+**	**Smoking prevalence**	**Smoker trips**	**Packs per trip**	**# of cigarettes**	**ND(L) volume**	**Total ND(L)**
Italy	Outbound			All flows considered legal					0.004bn
	Inbound								
Netherlands	Outbound			All flows considered legal					0.001bn
	Inbound								
Greece	Outbound			All flows considered legal					0.001bn
	Inbound								
Poland	Outbound			All flows considered legal					0.001bn
	Inbound								
Others									0.004bn
Total									**0.010bn**

NETHERLANDS									
Country		**# of border crossings**	**Population 18+**	**Smoking prevalence**	**Smoker trips**	**Packs per trip**	**# of cigarettes**	**ND(L) volume**	**Total ND(L)**
Belgium	Outbound			All flows considered legal					0.370bn
	Inbound								
Germany	Outbound			All flows considered legal					0.199bn
	Inbound								
UK	Outbound			All flows considered legal					0.106bn
	Inbound								
France	Outbound			All flows considered legal					0.080bn
	Inbound								
Others									0.696bn
Total									**1.451bn**

POLAND									
Country		**# of border crossings**	**Population 18+**	**Smoking prevalence**	**Smoker trips**	**Packs per trip**	**# of cigarettes**	**ND(L) volume**	**Total ND(L)**
Ukraine	Outbound	1.11mn	81%	24%	0.21mn	2	40	0.009bn	0.098bn
	Inbound	12.63mn	81%	22%	2.23mn	2	40	0.089bn	
Germany	Outbound			All flows considered legal					0.050bn
	Inbound								
Belarus	Outbound	0.00mn	81%	24%	0.00mn	2	40	0.000bn	0.028bn
	Inbound	3.45mn	80%	25%	0.69mn	2	40	0.028bn	
Bulgaria	Outbound			All flows considered legal					0.020bn
	Inbound								
Others									0.177bn
Total									**0.372bn**

Methodology - Non-domestic legal analysis

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

PORTUGAL									
Country		**# of border crossings**	**Population 18+**	**Smoking prevalence**	**Smoker trips**	**Packs per trip**	**# of cigarettes**	**ND(L) volume**	**Total ND(L)**
Spain	Outbound	All flows considered legal							0.063bn
	Inbound								
Italy	Outbound	All flows considered legal							0.007bn
	Inbound								
Brazil	Outbound	All flows considered legal							0.004bn
	Inbound								
France	Outbound	All flows considered legal							0.004bn
	Inbound								
Others									0.063bn
Total									**0.141bn**

ROMANIA									
Country		**# of border crossings**	**Population 18+**	**Smoking prevalence**	**Smoker trips**	**Packs per trip**	**# of cigarettes**	**ND(L) volume**	**Total ND(L)**
Ukraine	Outbound	0.71mn	79%	25%	0.14mn	10	200	0.028bn	0.034bn
	Inbound	0.84mn	81%	22%	0.15mn	2	40	0.006bn	
Spain	Outbound	All flows considered legal							0.007bn
	Inbound								
Italy	Outbound	All flows considered legal							0.006bn
	Inbound								
Serbia	Outbound	0.05mn	79%	25%	0.01mn	10	200	0.002bn	0.005bn
	Inbound	0.37mn	82%	29%	0.09mn	2	40	0.004bn	
Others									0.055bn
Total									**0.107bn**

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	All flows considered legal							0.025bn
	Inbound								
Ukraine	Outbound	0.41mn	81%	32%	0.10mn	10	200	0.021bn	0.021bn
	Inbound	0.04mn	81%	22%	0.01mn	2	40	0.000bn	
Hungary	Outbound	All flows considered legal							0.008bn
	Inbound								
Poland	Outbound	All flows considered legal							0.007bn
	Inbound								
Others									0.041bn
Total									**0.103bn**

Methodology - Non-domestic legal analysis

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

SLOVENIA									
Country		**# of border crossings**	**Population 18+**	**Smoking prevalence**	**Smoker trips**	**Packs per trip**	**# of cigarettes**	**ND(L) volume**	**Total ND(L)**
Croatia	Outbound	All flows considered legal							0.026bn
	Inbound								
Austria	Outbound	All flows considered legal							0.009bn
	Inbound								
Hungary	Outbound	All flows considered legal							0.008bn
	Inbound								
Czech Republic	Outbound	0.04mn	82%	24%	0.01mn	40	800	0.006bn	0.007bn
	Inbound	0.09mn	81%	25%	0.02mn	2	40	0.001bn	
Others									0.049bn
Total									**0.099bn**

SPAIN									
Country		**# of border crossings**	**Population 18+**	**Smoking prevalence**	**smoker trips**	**Packs per trip**	**# of cigarettes**	**ND(L) volume**	**Total ND(L)**
Gibraltar	frontier workers	0.09mn	100%	39%	0.03mn	4	80	0.003bn	0.752bn
	border crossings	7.94mn	78%	61%	3.75mn	10	200	0.750bn	
Andorra	border crossings	All flows considered legal							0.551bn
Canary Islands	border crossings	1.65mn	90%	78%	1.16mn	10	200	0.231bn	0.231bn
Portugal	Outbound	All flows considered legal							0.033bn
	Inbound								
Others									0.338bn
Total									**1.894bn**

SWEDEN									
Country		**# of border crossings**	**Population 18+**	**Smoking prevalence**	**Smoker trips**	**Packs per trip**	**# of cigarettes**	**ND(L) volume**	**Total ND(L)**
Spain	Outbound	All flows considered legal							0.027bn
	Inbound								
Germany	Outbound	All flows considered legal							0.026bn
	Inbound								
Poland	Outbound	0.19mn	78%	12%	0.02mn	40	800	0.014bn	0.017bn
	Inbound	0.48mn	81%	24%	0.09mn	2	40	0.004bn	
Finland	Outbound	All flows considered legal							0.017bn
	Inbound								
Others									0.187bn
Total									**0.274bn**

Methodology - Non-domestic legal analysis

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

UK[a]									
Country		**# of border crossings**	**Population 18+**	**Smoking prevalence**	**Smoker trips**	**Packs per trip**	**# of cigarettes**	**ND(L) volume**	**Total ND(L)**
Spain	Outbound	All flows considered legal							1.079bn
	Inbound								
Poland	Outbound	2.39mn	78%	23%	0.42mn	40	800	0.339bn	0.647bn
	Inbound	1.93mn	81%	27%	0.42mn	37	740	0.308bn	
	Outbound	0.15mn	78%	18%	0.02mn	40	800	0.016bn	0.165bn
	Inbound	0.94mn	79%	25%	0.19mn	40	800	0.149bn	
Canary Islands	Outbound	All flows considered legal							0.117bn
	Inbound								
Others									1.853bn
Total									**3.861bn**

NORWAY									
Country		**# of border crossings**	**Population 18+**	**Smoking prevalence**	**Smoker trips**	**Packs per trip**	**# of cigarettes**	**ND(L) volume**	**Total ND(L)**
Sweden	Outbound	All flows considered legal							0.301bn
	Inbound								
Denmark	Outbound	All flows considered legal							0.020bn
	Inbound								
Germany	Outbound	0.42mn	77%	12%	0.04mn	10	200	0.008bn	0.010bn
	Inbound	0.25mn	83%	25%	0.05mn	2	40	0.002bn	
Spain	Outbound	All flows considered legal							0.007bn
	Inbound								
Others									0.473bn
Total									**0.810bn**

SWITZERLAND									
Country		**# of border crossings**	**Population 18+**	**Smoking prevalence**	**Smoker trips**	**Packs per trip**	**# of cigarettes**	**ND(L) volume**	**Total ND(L)**
France	Outbound	All flows considered legal							0.282bn
	Inbound								
Germany	Outbound	All flows considered legal							0.222bn
	Inbound								
Italy	Outbound	All flows considered legal							0.112bn
	Inbound								
Austria	Outbound	All flows considered legal							0.044bn
	Inbound								
Others									0.701bn
Total									**1.361bn**

Note: (a) Smoking prevalence has been weighted to take account of the nationality and gender of the travellers between Poland and the UK

Methodology - Illicit Whites analysis

Methodology - Illicit Whites analysis

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

- Illicit Whites are defined as
  - Cigarettes that are usually produced legally in one country/market but which the evidence suggests are smuggled across borders during their transit to the destination market under review where they have limited or no legal distribution and are sold without payment of tax
- KPMG undertook the following analysis to determine which brands made up Illicit Whites brand flows:
  - Illicit volumes were compared to LDS on a country by country basis to determine a share of total consumption
  - KPMG conservatively assumed that where illicit volumes represented >99% of total consumption, the brand is an Illicit White where a large flow has no country specific labelling or tax stamp
  - Once identified, the brand's overall volume is determined only in countries where the brand flow meets the 99% criteria
- Many of the Illicit Whites brand flows are identified in high volumes in the EPS. However, given our identification of counterfeit product is limited to the four industry participants, we cannot assess whether these flows are genuine or counterfeit

Illicit Whites identification process, Project SUN – worked example

PROJECT SUN - 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

PROJECT SUN - LDS BY BRAND AND BY COUNTRY				
Brand	**Country 1**	**Country 2**	**Country 3**	**Country 4**
Brand A	-	0.00	-	0.01

PROJECT SUN - NON-DOMESTIC VOLUMES AS SHARE OF TOTAL CONSUMPTION				
Brand	**Country 1**	**Country 2**	**Country 3**	**Country 4**
Brand A	100%	100%	100%	38%

PROJECT SUN - ILLICIT WHITE VOLUMES BY BRAND AND BY DESTINATION COUNTRY				
Brand	**Country 1**	**Country 2**	**Country 3**	**Country 4**
Brand A	0.01	0.24	0.01	-

Classified as an Illicit White in country 2 where there is no evidence of legal distribution and all flows are unspecified origin

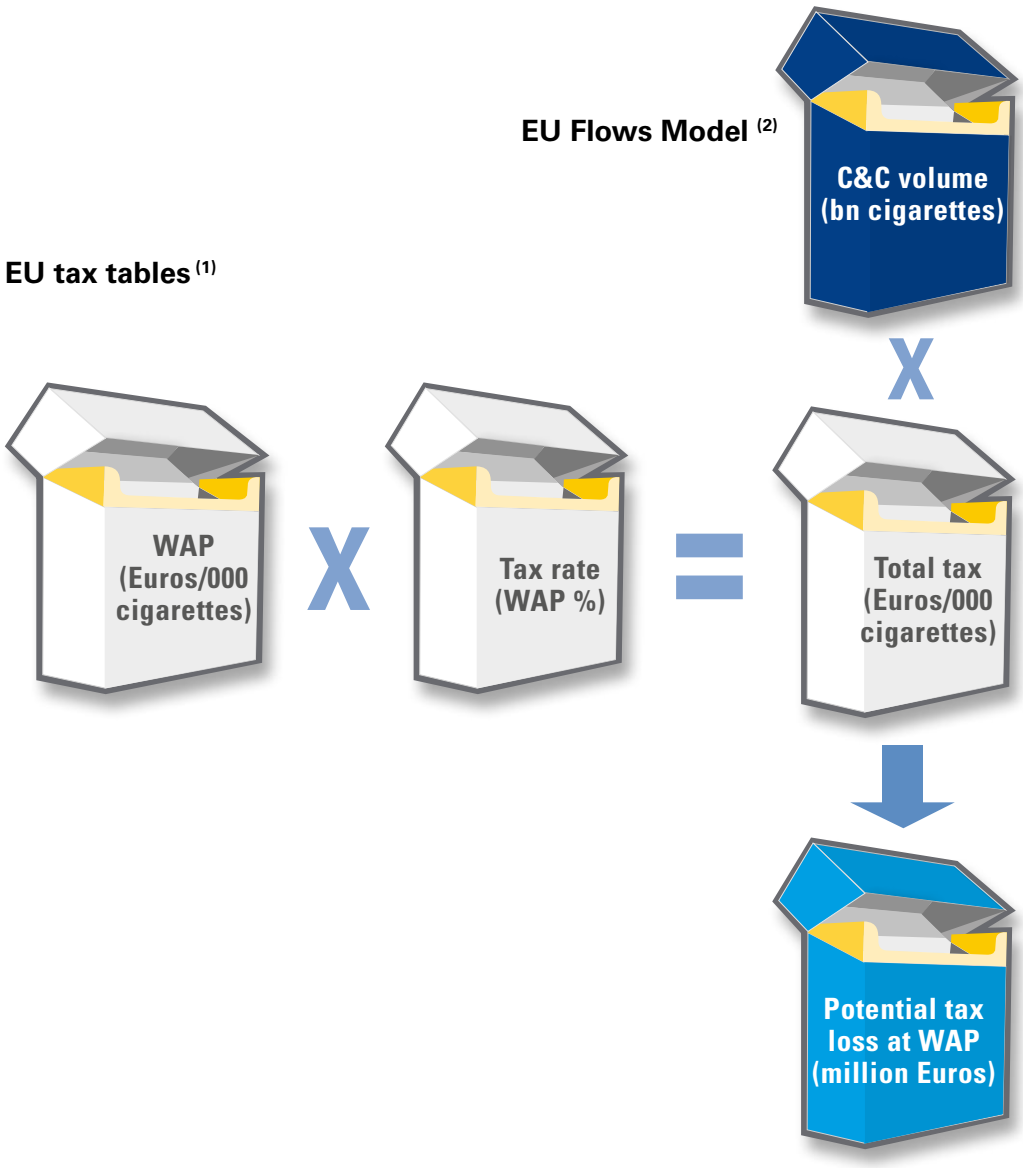
Not classified as an Illicit White in country 4 where non-domestic volumes are 38% of consumption

Methodology - EU Tax Loss Calculation

Methodology - EU Tax Loss Calculation

Tax losses are calculated to estimate the tax revenue that would have been gained had the volume of C&C cigarettes consumed been legally purchased in that country

- The calculation shown below was performed for each country:
  - EU tax tables were used to determine the WAP[(a)] for cigarettes in January 2017
  - 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 Model to give the total potential tax loss based on WAP
- Total tax losses for the EU 28 countries based on WAP were estimated to be €10.2bn in 2016. This was an decrease versus prior year (2015: €11.3bn)
- 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 20 cigarettes
Sources: (1) EC Excise Duty tables (Part III – Manufactured Tobacco) as at January 2016
(2) KPMG EU Flows Model and analysis of data sources provided by manufacturers.

Appendices - RUSI Methodolgy

RUSI Methodology

The sections of the Project SUN 2016 report offered by RUSI draw on **RUSI research conducted in 2015–16** on the role of organised crime in the illicit trade in tobacco, as well as alcohol and pharmaceuticals, in the EU. The first of its kind, this study saw researchers work closely with law-enforcement agencies to gain **operational experience** of both the threat and the methods employed to tackle it.

The research focused on five EU countries – **Greece, Italy, Poland, Romania and Spain**. In each, it assessed the **scale of operations, methods and routes** used by OCGs involved in illicit trade across source regions, transit hubs and destination markets.

The methodology was divided into three phases. The first phase comprised a review of academic literature, government policy documents, law-enforcement strategies and private-sector reports on the involvement of organised crime in illicit trade. In the second phase, researchers conducted fieldwork in each focus country, combining operational research and **semi-structured interviews** with experts from industry, academia and law enforcement.

The third phase involved **half-day workshops** in each country, attended by representatives of law enforcement, research institutes, and the tobacco, alcohol and pharmaceutical industries. These allowed researchers to validate findings from the first two phases and to generate discussion on future trends and policy implications.[1]

Throughout, national-level research was complemented by work to examine assessments of, and responses to, **illicit trade at the EU level**. This comprised a review of relevant academic and policy documents, and further interviews with experts from international agencies.

Finally, a **two-day conference** was held in Brussels to examine the main themes raised by the research with stakeholders from EU institutions, law enforcement, research institutes and industry. The results were published in five country reports, as well as the regional-level report 'On Tap Europe: Organised Crime and Illicit Trade in Tobacco, Alcohol and Pharmaceuticals'.[2]

In contributing to Project SUN, RUSI drew on the above research and conducted further **analysis around the data emerging for 2016**, specifically for the focus countries listed previously. Researchers worked closely with KPMG on interpreting legal domestic sales, empty pack survey results and other consumer research used to estimate volumes of C&C across Europe.

At each stage of KPMG's EU flows model, **researchers provided analytical input** on the background to the levels and nature of C&C found in RUSI's focus countries – as well as across the region more broadly. The aim was to add context to the findings, fill knowledge gaps around the data, and add explanatory value to shifts in the data on previous years.

The outcomes of this research are presented in the Executive Summary on pages 8–9, the chapter 'Organised Crime and the Illicit Cigarette Trade in Europe' on pages 23–32 and in the country reports for Greece, Italy, Poland, Romania and Spain (pp. 84, 99, 130, 140 and 154).

The RUSI chapter offers qualitative analysis on trends in **organised crime practice at a Europe-wide level**. It outlines, first, the changing nature and structure of the OCGs supplying EU illicit cigarette markets, and the context for these shifts in their makeup. Second, it examines the **routes, techniques and modus operandi** employed – in relation to both C&C smuggling and illicit production. Finally, it examines **key factors enabling OCG engagement** in the illicit cigarette trade, as well as their implications for policies aimed at disruption.

In the country reports, finally, RUSI offers **domestic-level analysis**, covering trends in the organised crime groups, routes and methods seen in each context. Analysis also covers **national efforts to disrupt the trade**, highlighting emerging trends and key challenges to law-enforcement responses in each case.

Sources: *(1) Calum Jeffray, 'On Tap Europe: Organised Crime and Illicit Trade in Poland, Country Report', RUSI Occasional Papers (August 2016); Clare Ellis, 'On Tap Europe: Organised Crime and Illicit Trade in Spain, Country Report', RUSI Occasional Papers (January 2017); Calum Jeffray, 'On Tap Europe: Organised Crime and Illicit Trade in Greece, Country Report', RUSI Occasional Papers (February 2017); 'On Tap Europe: Organised Crime and Illicit Trade in Romania, Country Report', RUSI Occasional Papers (forthcoming); 'On Tap Europe: Organised Crime and Illicit Trade in Italy, Country Report', RUSI Occasional Papers (forthcoming). (2) Clare Ellis, 'On Tap Europe: Organised Crime and Illicit Trade in Tobacco, Alcohol and Pharmaceuticals', Whitehall Report, 2-17 (March 2017).*

RUSI Methodology

Fieldwork

Appendices - Limitation of Results

Appendices - Limitation of Results

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 are not included in France consumption figures • Portuguese results only cover mainland Portugal and do not include Madeira or the Azores • Greek results only cover mainland Greece and do not include the Greek islands • UK results only cover Great Britain and Northern Ireland and do not include the Channel Islands or Isle of Man	Not adjusted for
Non-major manufacturer counterfeit	• EPS results do not identify counterfeit packs that have been made by manufacturers other than British American Tobacco plc, Imperial Tobacco Limited, JT International SA and Philip Morris International Management SA as only the manufacturer / trademark owner can confirm whether their brand pack is genuine	• In some instances, the volume of legal domestic consumption may be overstated where domestic counterfeit variants exist, leading to corresponding understatements of C&C volumes for some brands (although the impact is likely to be minimal) • We cannot distinguish non-major manufacturer brand counterfeit (non-domestic variants) and contraband product, although this will not impact the overall volume of C&C • Illicit Whites volumes may include counterfeit	Not adjusted for
OTP	• EPSs collect cigarette packs only • Non-domestic consumption for OTP cannot be measured via EPS results	• Reports in a number of countries suggest that non-domestic consumption of OTP may have been growing in recent years. These observations are supported by Customs organisations in some countries	Not adjusted for
Non-EU outflows	• In order to calculate consumption, we have assumed no outflows of LDS outside the 30 countries of study	• With the exception of Bulgaria to Turkey, non-EU LDS outflows are not considered to be material due to the high prices relative to other parts of the world and Duty Free import restrictions. This is supported by market discussions and non-EU EPSs	Partially adjusted for

Appendices - Limitation of Results

Source	Limitation
EPS	• Whilst the EPS for every country is designed to be representative of the overall population, in some countries, owing to the geographical circumstances or demographics it is not possible to ensure that the sample is fully representative. This may be because: – 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. Therefore, they are not directly comparable with the EPS results from other countries due to the difference in the methodology. However, both methods produce similar results (see page 186 for details)[(a)] • Although EPS dates are selected to minimise seasonal factors, there may be specific events that impact the results such as significant price changes between countries and major national events which result in large numbers visiting the country, such as the Olympics or World Cup – In some instances the timing of EPSs has changed between years. In order to ensure comparability of results, monthly LDS figures, consumption trends and visitor data are all analysed and adjustments made where appropriate – Where there are specific outflows related to tourism limited to the summer months, the reported numbers may underrepresent the full picture as the EPS will only capture 1 point in time • 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 • EPS results are analysed to identify any outliers that may impact results, such as geographic concentrations of a specific brand or market variant. Brand specific data is also compared to known sales in the source market to identify whether results are credible – Where data suggests a sampling or data capture error may have occurred at a specific location, results are adjusted and the remainder of the survey is re-weighted accordingly • 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 to determine this distinction – The study also does not take account of various duty free loopholes that exist for some travel within the EU

Note: (a) Over 500,000 packs were collected as part of the YBS in Germany; however once weighted, the survey is presented in 120,000 data lines

Appendices - Limitation of Results

Source	Limitation
LDS	• In some cases tax stamp data may not correspond to the calendar year and may also be distorted by inventory holdings in advance of increases in taxation. In these instances we have used the LDS source considered by local country management to be representative of smoker consumption during the calendar year, or official government data sources (for example, in Latvia) • AC Nielsen Retail Audit data is derived from retail sales information but may exclude particular sales channels or retailers – In markets where we have used Retail Audit data, AC Nielsen have calculated an appropriate uplift to derive total market sales, including volumes not accounted for in Retail Audit data • Slight timing variances may arise between the date the product was shipped and actual consumption but, following discussions with local management, this is not considered significant and the full year LDS information we have is considered to be a fair and accurate representation in each market
ND(L)	• From 2014, we have used business and tourism travel data from sources such as the World Tourism Organization and national statistics office to calculate the number of trips made • We have calculated the volume of cigarettes purchased by assuming that smokers purchase the Duty Free limit, or the indicative legal limit for intra-EU travel • This may over-weight ND(L) volume as a proportion of the total non-domestic flow • Comparison of ND(L) volumes as calculated by travel flows analysis with historic consumer research has ensured that some of these limitations have been corrected, such as the number of packs purchased per trip • In order to determine the ND(L) brand split, border sales data is used. Whilst this gives an accurate approximation of the likely brand split, some brands may be sold more specifically on the border than others, which could increase the share of that brand • Where border sales data is not available and the EPS cannot be used, the brands are categorised as "other"

Appendices - EPS results by country

Appendices - EPS results by country

EPS results for EU 28 countries, Norway and Switzerland

EU 28 countries, Norway and Switzerland	Number of packs collected			ND incidence in EPS		
Region	**2014**	**2015**	**2016**	**2014**	**2015**	**2016**
Austria	12,811	13,000	13,002	16%	14%	18%
Belgium	5,600	5,600	5,600	13%	13%	9%
Bulgaria	12,700	13,000	13,000	21%	13%	9%
Croatia	3,000	3,000	3,000	10%	5%	6%
Cyprus	1,000	1,000	1,000	5%	7%	9%
Czech Republic	21,004	21,004	21,004	4%	4%	4%
Denmark	5,500	5,500	5,500	5%	6%	5%
Estonia	6,600	6,600	6,600	20%	15%	16%
Finland	5,000	5,794	5,800	16%	18%	14%
France	23,000	22,998	23,000	25%	30%	27%
Germany	120,000	120,000		19%	18%	
Greece	13,000	14,000	14,000	21%	21%	19%
Hungary	19,910	19,905	19,895	12%	11%	7%
Ireland	10,000	9,999	20,000	24%	25%	30%
Italy	40,000	39,982	40,000	8%	8%	8%
Latvia	9,800	9,800	9,800	30%	28%	25%
Lithuania	19,200	12,800	19,200	30%	21%	19%
Luxembourg	400	399	400	7%	18%	7%
Malta	1,000	1,000	1,000	10%	12%	19%
Netherlands	21,000	21,000	28,000	21%	19%	18%
Poland	51,000	51,000	51,000	17%	18%	16%
Portugal	3,000	3,000	3,000	2%	4%	3%
Romania	15,072	15,126	15,152	16%	16%	17%
Slovakia	12,800	12,800	6,400	1%	4%	5%
Slovenia	3,000	3,000	3,000	9%	10%	13%
Spain	29,997	29,983	30,000	12%	10%	9%
Sweden	19,909	10,031	10,000	11%	13%	13%
UK	38,100	25,400	50,800	24%	28%	26%
Norway	5,000	5,000	5,000	47%	46%	43%
Switzerland	6,600	6,600	6,600	9%	14%	15%
Total	**535,003**	**508,321**	**430,753**	**15.5%**	**13.0%**	**16.3%**

Appendices - EPS results by country

Austria and Belgium EPS results by region, 2014-16[(1)(2)(3)]

Austria	Number of packs collected			ND incidence in EPS		
Region	2014	2015	2016	2014	2015	2016
Burgenland	1,544	440	440	14%	17%	26%
Kärnten	2,402	850	850	23%	21%	18%
Niederösterreich	1,555	2,484	2,486	16%	15%	25%
Oberösterreich	1,993	2,179	2,178	18%	13%	15%
Salzburg	759	816	816	10%	12%	12%
Steiermark	1,146	1,853	1,854	15%	16%	15%
Tirol	779	1,104	1,104	6%	6%	7%
Vorarlberg	658	574	574	7%	9%	23%
Wien	1,975	2,700	2,700	20%	14%	20%
Total	**12,811**	**13,000**	**13,002**	**16%**	**14%**	**18%**

Belgium	Number of packs collected			ND incidence in EPS		
Region	2014	2015	2016	2014	2015	2016
Aalst	200	200	200	19%	10%	8%
Anderlecht	240	240	240	30%	10%	9%
Antwerp	1,100	1,100	1,100	7%	14%	8%
Arlon	160	160	160	44%	37%	7%
Brugge	240	240	240	11%	7%	8%
Brussels	380	380	380	15%	8%	6%
Charleroi	460	460	460	12%	12%	11%
Genk	200	200	200	7%	15%	9%
Gent	500	500	500	11%	11%	6%
Hasselt	200	200	200	11%	18%	10%
Kortrijk	200	200	200	12%	10%	6%
Leuven	200	200	200	5%	29%	17%
Liege	440	440	440	13%	14%	13%
Mechelen	200	200	200	13%	6%	8%
Mons	200	200	200	21%	10%	10%
Namur	240	240	240	27%	14%	7%
Sambreville	160	160	160	7%	15%	6%
Schaerbeek		280	280	0%	12%	5%
Total	**5,600**	**5,600**	**5,600**	**13%**	**13%**	**9%**

Source: (1) Austria Chamber of Commerce Empty Pack Surveys, 2014-2016
(2) CPM, Vienna, 2015
(3) MS Intelligence Empty Pack Surveys, 2014-2016

Appendices - EPS results by country

Bulgaria results by region, 2014-16[1]

Bulgaria	Number of packs collected			ND incidence in EPS		
Region	2014	2015	2016	2014	2015	2016
Blagoevgrad	500	300	500	34%	32%	13%
Burgas	660	660	663	19%	10%	5%
Dobric	300	300	300	4%	7%	8%
Gabrovo	300	300	300	37%	43%	2%
Grad Sofia	3,960		3,744	14%		6%
Haskovo	908	252	1,035	36%	18%	14%
Jambol	244	244	272	5%	5%	6%
Kjustendil	300	300	400	40%	26%	22%
LOM		200			6%	
Lovec	352		344	14%		4%
Montana	500	300	400	24%	21%	5%
Pazardzik	236	236	268	40%	29%	10%
Pernik	264	264	282	10%	12%	26%
Pleven		352			7%	
Plovdiv	1,114	1,114	1,264	34%	24%	14%
Razgrad	200	200	100	4%	2%	2%
Ruse	492	492	492	16%	8%	6%
Sandanski		200			14%	
Silistra	200	200	100	4%	8%	3%
Sliven	302	302	301	66%	20%	11%
Sofia		3,960			8%	
Stara Zagora		456			10%	
Sumen	266	266	283	4%	3%	3%
Svilengrad		200			41%	
Svishtov		200			4%	
Varna	1,102	1,102	1,102	14%	8%	6%
Veliko Tarnovo	500	300	400	10%	13%	4%
Vidin		300	300		26%	8%
Vratsa			150			3%
Total	**12,700**	**13,000**	**13,000**	**21%**	**13%**	**9%**

Source: (1) Nielsen Empty Pack Surveys, 2014-2016.

Appendices - EPS results by country

Croatia, Cyprus and Czech Republic EPS results by region, 2014-16[1][2]

Croatia	Number of packs collected			ND incidence in EPS		
Region	**2014**	**2015**	**2016**	**2014**	**2015**	**2016**
Osijek	193	193	193	20%	5%	13%
Pula	132	132	132	4%	2%	1%
Rijeka	294	294	294	5%	3%	3%
Sesvete	126	126	126	15%	4%	4%
Slavonski Brod	124	124	124	46%	25%	46%
Split	383	383	383	11%	4%	4%
Zadar	163	163	163	2%	2%	0%
Zagreb	1,585	1,585	1,585	7%	5%	3%
Total	**3,000**	**3,000**	**3,000**	**10%**	**5%**	**6%**

Cyprus	Number of packs collected			ND incidence in EPS		
Region	**2014**	**2015**	**2016**	**2014**	**2015**	**2016**
Larnaca	150	150	150	10%	4%	8%
Limassol	300	300	300	2%	4%	8%
Nicosia	400	400	400	6%	11%	10%
Paphos	150	150	150	5%	3%	13%
Total	**1,000**	**1,000**	**1,000**	**5%**	**7%**	**9%**

Czech Republic	Number of packs collected			ND incidence in EPS		
Region	**2014**	**2015**	**2016**	**2014**	**2015**	**2016**
Jihocesky Kraj	724	724	724	2%	2%	3%
Jihomoravsky Kraj	2,148	2,148	2,148	4%	4%	4%
Karlovarsky Kraj	300	300	300	7%	8%	4%
Kralovehradecky Kraj	526	526	526	2%	2%	4%
Liberecky Kraj	1,034	1,034	1,034	3%	4%	4%
Moravsoslezsky Kraj	3,332	3,332	3,332	5%	6%	4%
Olomoucky Kraj	1,062	1,062	1,062	4%	3%	5%
Pardubicky Kraj	510	510	510	4%	3%	4%
Plzensky Kraj	948	948	948	3%	3%	4%
Praha	7,114	7,114	7,114	4%	4%	4%
Stredocesky Kraj	636	636	636	5%	5%	3%
Ustecky Kraj	1,750	1,750	1,750	5%	9%	5%
Vysocina	496	496	496	4%	3%	5%
Zlinsky Kraj	424	424	424	4%	4%	3%
Total	**21,004**	**21,004**	**21,004**	**4%**	**4%**	**4%**

Sources: (1) Nielsen Empty Pack Surveys, 2014-2016.
(2) Ultex Empty Pack Surveys, 2014-2016.

Appendices - EPS results by country

Denmark and Estonia EPS results by region, 2014-16[1][2]

Denmark	Number of packs collected			ND incidence in EPS		
Region	**2014**	**2015**	**2016**	**2014**	**2015**	**2016**
Capital Region	2,612	2,612	2,613	5%	6%	4%
Mid Jutland	1,211	1,211	1,211	5%	5%	5%
North Jutland	422	422	422	5%	5%	4%
South Denmark	1,105	1,105	1,105	5%	6%	4%
Zealand	150	150	150	6%	2%	5%
Total	**5,500**	**5,500**	**5,500**	**5%**	**6%**	**5%**

Estonia	Number of packs collected			ND incidence in EPS		
Region	**2014**	**2015**	**2016**	**2014**	**2015**	**2016**
Har	1600	3,200	3,200	16%	11%	11%
Harju	1,600			15%		
Ida	550	1,100	1,100	42%	32%	33%
Ida-Viru	550			39%		
Lääne	200	200	200	22%	17%	17%
Lääne-Viru	200	200		18%	11%	
Lvi			200			15%
Pär	150	300	300	13%	11%	20%
Pärnu	150			12%		
Saa	100	200	200	19%	11%	11%
Saare	100			14%		
Tar	400	800	800	13%	13%	11%
Tartu	400			12%		
Val	100	200	200	43%	23%	22%
Valga	100			36%		
Vil	100	200	200	22%	12%	15%
Viljandi	100			15%		
Võr	100	200	200	31%	22%	22%
Võru	100			25%		
Total	**6,600**	**6,600**	**6,600**	**20%**	**15%**	**16%**

Sources: (1) Nielsen Empty Pack Surveys, 2014-2016.
(2) MS Intelligence Empty Pack Surveys, 2014-2016.

Appendices - EPS results by country

Finland and France EPS results by region, 2014-16[1]

Finland	Number of packs collected			ND incidence in EPS		
Region	**2014**	**2015**	**2016**	**2014**	**2015**	**2016**
Etela-Karjala		301	300		15%	19%
Keski-Suomi	320	318	319	18%	17%	13%
Kymenlaakso	210	206	206	20%	14%	14%
Lappi		199	200		23%	12%
Paijat-Hame	248	245	246	20%	14%	15%
Pirkanmaa	522	522	523	16%	20%	13%
Pohjois-Karjala		299	300		15%	17%
Pohjois-Savo	252	252	252	17%	14%	13%
Prohiois-Pohianmaa	458	461	459	16%	17%	13%
Uusimaa	2,558	2,559	2,563	15%	20%	15%
Varsinais-Suomi	432	432	432	19%	15%	12%
Total	**5,000**	**5,794**	**5,800**	**16%**	**18%**	**14%**

France	Number of packs collected			ND incidence in EPS		
Region	**2014**	**2015**	**2016**	**2014**	**2015**	**2016**
Alsace Lorraine Champagne Ardennes	2,200	2,200	2,200	31%	31%	31%
Aquitaine	1,400	1,400	1,400	23%	26%	29%
Auvergne Limousin	1,000	1,000	1,000	24%	24%	25%
Basse Haute Normandie	1,600	1,600	1,600	24%	23%	20%
Bourgogne Franche Comte	2,000	2,000	2,000	27%	21%	25%
Bretagne	2,000	2,000	2,000	12%	15%	18%
Centre	1,000	1,000	1,000	25%	20%	20%
Ile De France	3,000	2,998	3,000	25%	33%	28%
Languedoc Roussillon Midi Pyrenees	1,600	1,600	1,600	28%	33%	33%
Nord Picardie	2,000	2,000	2,000	42%	31%	32%
Pays De Loire Poitou Charentes	1,600	1,600	1,600	12%	24%	20%
Provence Alpes Cote D Azur	1,600	1,600	1,600	36%	52%	29%
Rhone Alpes	2,000	2,000	2,000	20%	27%	30%
Total	**23,000**	**22,998**	**23,000**	**25%**	**30%**	**27%**

Source: (1) MS Intelligence Empty Pack Surveys, 2014-2016.

Appendices - EPS results by country

Germany and Greece EPS results by region, 2014-16[(1)(2)(a)]

Germany	Weighted number of packs collected			ND incidence in EPS		
Region	**2014**	**2015**	**2016**	**2014**	**2015**	**2016**
Nielsen 1	19,810	19,349	53,128	11%	10%	4%
Nielsen 2	26,774	26,202	33,696	11%	10%	6%
Nielsen 3a	16,388	15,857	37,897	10%	9%	5%
Nielsen 3b	15,368	14,886	34,960	9%	10%	3%
Nielsen 4	17,469	17,942	41,375	25%	24%	10%
Nielsen 5	5,583	5,957	11,897	44%	39%	20%
Nielsen 6	10,144	10,964	21,138	39%	32%	16%
Nielsen 7	8,464	8,843	36,184	43%	42%	12%
Total	**120,000**	**120,000**	**270,275**	**19%**	**18%**	**8%**

Greece	Number of packs collected			ND incidence in EPS		
Region	**2014**	**2015**	**2016**	**2014**	**2015**	**2016**
Attica	4,600	4,600	4,600	25%	25%	22%
Central Greece	400	400	400	18%	17%	20%
Central Macedonia	2,700	3,000	3,000	22%	23%	23%
Crete	1,000	1,000	1,000	26%	13%	14%
East Macedonia/Thrace	400	800	800	23%	15%	15%
Epirus	500	600	600	20%	21%	19%
Ionian Islands	400	400	400	11%	19%	17%
South Aegean	400	400	400	11%	12%	16%
Thessaly	1,200	1,200	1,200	17%	16%	16%
West Greece	1,200	1,200	1,200	11%	17%	17%
West Macedonia	200	400	400	26%	21%	13%
Total	**13,000**	**14,000**	**14,000**	**21%**	**21%**	**19%**

Note: (a) The Germany data is not comparable with prior years and is therefore provided for 2014 and 2015 only. In 2015, Over 500,000 packs were collected as part of the YBS in Germany; however once weighted, the survey is presented in 120,000 data lines

Sources: (1) Ipsos Yellow Bag Surveys, 2014 and 2015 (Germany).
(2) Nielsen Empty Pack Surveys, 2014-2016.

Appendices - EPS results by country

Hungary and Ireland EPS results by region, 2014-16[(1)(2)]

Hungary	Number of packs collected			ND incidence in EPS		
Region	**2014**	**2015**	**2016**	**2014**	**2015**	**2016**
Bács-Kiskun	980	980	979	12%	15%	8%
Baranya	645	645	645	9%	7%	7%
Békés	760	760	758	13%	7%	6%
Borsod-Abaúj-Zemplén	1,465	1,465	1,465	16%	13%	11%
Budapest	6,250	6,250	6,250	10%	9%	6%
Csongrád	1,310	1,310	1,310	14%	13%	6%
Fejér	640	640	640	3%	6%	5%
Győr-Moson-Sopron	935	934	934	5%	3%	6%
Hajdú-Bihar	1,195	1,195	1,194	16%	11%	9%
Heves	390	390	390	11%	8%	6%
Jász-Nagykun-Szolnok	520	520	518	15%	9%	10%
Komárom-Esztergom	440	440	440	7%	6%	7%
Nógrád	165	165	165	15%	2%	6%
Pest	1,235	1,235	1,233	6%	11%	7%
Somogy	490	490	490	4%	4%	4%
Szabolcs-Szatmár-Bereg	1,100	1,099	1,097	45%	50%	12%
Tolna	145	145	145	2%	2%	4%
Vas	335	335	335	3%	1%	5%
Veszprém	420	417	417	1%	1%	3%
Zala	490	490	490	6%	5%	2%
Total	**19,910**	**19,905**	**19,895**	**12%**	**11%**	**7%**

Ireland	Number of packs collected			ND incidence in EPS		
Region	**2014**	**2015**	**2016**	**2014**	**2015**	**2016**
Connacht	800	800	1,600	24%	23%	29%
Leinster	6,450	6,449	12,900	23%	26%	31%
Munster	2,550	2,550	5,100	25%	24%	30%
Ulster	200	200	400	28%	25%	28%
Total	**10,000**	**9,999**	**20,000**	**24%**	**25%**	**30%**

Sources: (1) GFK Hungary Empty Pack Surveys, 2014-2016.
(2) MS Intelligence Empty Pack Surveys, 2014-2016.

Appendices - EPS results by country

Italy and Latvia EPS results by region, 2014-16[1][2]

Italy	Number of packs collected			ND incidence in EPS		
Region	**2014**	**2015**	**2016**	**2014**	**2015**	**2016**
Abruzzo	400	400	400	2%	2%	0%
Calabria	552	552	552	4%	5%	7%
Campania	3,648	3,648	3,648	26%	37%	33%
Emilia Romagna	4,416	4,413	4,416	1%	2%	2%
Friuli Venezia Giulia	608	608	608	11%	26%	21%
Lazio	7,892	7,889	7,892	5%	7%	3%
Liguria	1,796	1,794	1,796	5%	2%	4%
Lombardia	5,284	5,283	5,284	9%	6%	6%
Marche	400	400	400	3%	2%	2%
Piemonte	3,080	3,080	3,080	4%	4%	5%
Puglia	1,968	1,968	1,968	3%	3%	7%
Sicilia	3,920	3,915	3,920	9%	9%	14%
Toscana	2,128	2,126	2,128	2%	5%	1%
Trentino Alto Adige	400	400	400	2%	0%	1%
Umbria	896	896	896	1%	2%	2%
Veneto	2,612	2,610	2,612	3%	3%	4%
Total	**40,000**	**39,982**	**40,000**	**8%**	**9%**	**8%**

Latvia	Number of packs collected			ND incidence in EPS		
Region	**2014**	**2015**	**2016**	**2014**	**2015**	**2016**
Kurzeme	1,200	1,200	1,200	28%	20%	22%
Latgale	1,400	1,400	1,400	54%	46%	36%
Pieriga	1,400	1,400	1,400	25%	27%	28%
Riga	4,000	4,000	4,000	27%	27%	24%
Vidzeme	800	800	800	19%	19%	18%
Zemgale	1,000	1,000	1,000	27%	22%	19%
Total	**9,800**	**9,800**	**9,800**	**30%**	**28%**	**25%**

Sources: (1) MS Intelligence Empty Pack Surveys, 2014-2016.
(2) Nielsen Empty Pack Surveys, 2014-2016.

Appendices - EPS results by country

Lithuania, Luxembourg and Malta EPS results by region, 2014-16[1][2]

Lithuania	Number of packs collected			ND incidence in EPS		
Region	**2014**	**2015**	**2016**	**2014**	**2015**	**2016**
Alytus	1,200	800	1,200	33%	23%	24%
Kaunas	4,500	3,000	4,500	31%	21%	17%
Klaipeda	2,400	1,600	2,400	18%	16%	12%
Marijampole	900	600	900	32%	22%	21%
Panevezys	1,200	800	1,200	34%	23%	25%
Siauliai	1,200	800	1,200	32%	31%	30%
Taurage	300	200	300	42%	19%	19%
Telsiai	1,200	800	1,200	25%	15%	16%
Utena	900	600	900	28%	14%	16%
Vilnius	5,400	3,600	5,400	32%	21%	18%
Total	**19,200**	**12,800**	**19,200**	**30%**	**21%**	**19%**

Luxembourg	Number of packs collected			ND incidence in EPS		
Region	**2014**	**2015**	**2016**	**2014**	**2015**	**2015**
Esch-Sur-Alzette	160	160	160	3%	14%	8%
Luxembourg	240	239	240	9%	21%	7%
Total	**400**	**399**	**400**	**7%**	**18%**	**7%**

Malta	Number of packs collected			ND incidence in EPS		
Region	**2014**	**2015**	**2016**	**2014**	**2015**	**2016**
Northern	350	350	350	10%	11%	21%
Northern Harbour	550	550	550	9%	14%	18%
Southern Harbour	100	100	100	12%	8%	19%
Total	**1,000**	**1,000**	**1,000**	**10%**	**12%**	**19%**

Sources: (1) Nielsen Empty Pack Surveys, 2014-2016.
(2) MS Intelligence Empty Pack Surveys, 2014-2016.

Appendices - EPS results by country

Netherlands and Poland EPS results by region, 2014-16[1][2]

Netherlands	Number of packs collected			ND incidence in EPS		
Region	**2014**	**2015**	**2016**	**2014**	**2015**	**2016**
Drenthe	303	303	404	14%	15%	19%
Flevoland	756	756	1,008	23%	20%	15%
Friesland	498	498	664	18%	15%	18%
Gelderland	1,626	1,626	2,168	20%	19%	15%
Groningen	546	546	728	23%	16%	15%
Limburg	1,128	1,128	1,504	23%	21%	23%
North Brabant	2,790	2,790	3,720	26%	23%	22%
North Holland	4,635	4,635	6,180	21%	19%	18%
Overijssel	1,488	1,488	1,984	21%	19%	19%
South Holland	5,916	5,916	7,888	20%	17%	17%
Utrecht	1,314	1,314	1,752	18%	17%	18%
Total	**21,000**	**21,000**	**28,000**	**21%**	**19%**	**18%**

Poland	Number of packs collected			ND incidence in EPS		
Region	**2014**	**2015**	**2016**	**2014**	**2015**	**2016**
Dolnoslaskie	3,900	3,900	3,900	8%	6%	6%
Kujawsko-Pomorskie	2,775	2,775	2,775	12%	13%	9%
Lodzkie	3,375	3,375	3,375	24%	20%	20%
Lubelskie	2,550	2,550	2,550	34%	32%	37%
Lubuskie	1,350	1,350	1,350	5%	7%	8%
Malopolskie	2,925	2,925	2,925	13%	16%	11%
Mazowieckie	8,100	8,100	8,100	24%	29%	24%
Opolskie	1,800	1,800	1,800	6%	6%	7%
Podkarpackie	2,850	2,850	2,850	28%	32%	29%
Podlaskie	1,425	1,425	1,425	43%	39%	35%
Pomorskie	2,325	2,325	2,325	1%	0%	2%
Slaskie	7,350	7,350	7,350	12%	16%	13%
Swietokrzyskie	1,575	1,575	1,575	8%	8%	12%
Warminsko-Mazurskie	2,400	2,400	2,400	55%	58%	47%
Wielkopolskie	4,050	4,050	4,050	2%	4%	0%
Zachodniopomorskie	2,250	2,250	2,250	6%	5%	8%
Total	**51,000**	**51,000**	**51,000**	**17%**	**18%**	**16%**

Sources: (1) MS Intelligence Empty Pack Surveys, 2014-2016.
(2) Almares Research Empty Pack Surveys, 2014-2016.

Appendices - EPS results by country

Portugal, Romania and Slovakia EPS results by region, 2014-16[(1)(2)(3)]

Portugal	Number of packs collected			ND incidence in EPS		
Region	**2014**	**2015**	**2016**	**2014**	**2015**	**2016**
Center	200	200	200	1%	2%	1%
Lisboa	900	900	900	3%	4%	6%
North	1,900	1,900	1,900	2%	3%	3%
Total	**3,000**	**3,000**	**3,000**	**2%**	**4%**	**3%**

Romania	Number of packs collected			ND incidence in EPS		
Region	**2014**	**2015**	**2016**	**2014**	**2015**	**2016**
Bucharest	1,586	1,600	1,742	11%	10%	7%
Center	1,497	1,531	1,583	3%	2%	2%
North-East	2,667	2,637	2,399	33%	37%	42%
North-West	2,087	1,891	2,048	17%	20%	21%
South	2,025	2,084	2,005	5%	3%	2%
South-East	2,087	2,062	1,948	15%	11%	13%
South-West	1,510	1,676	1,798	16%	24%	24%
West	1,613	1,645	1,629	28%	23%	24%
Total	**15,072**	**15,126**	**15,152**	**16%**	**16%**	**17%**

Slovakia	Number of packs collected			ND incidence in EPS		
Region	**2014**	**2015**	**2016**	**2014**	**2015**	**2016**
Banskobystricky Kraj	1,100	1,100	550	1%	3%	2%
Bratislavsky Kraj	2,400	2,400	1,200	0%	2%	3%
Kosicky Kraj	2,600	2,600	1,300	3%	6%	8%
Nitriansky Kraj	1,700	1,700	850	0%	3%	4%
Presovsky Kraj	2,200	2,200	1,100	1%	4%	7%
Trenciansky Kraj	800	800	400	1%	4%	2%
Trnavsky Kraj	800	800	400	1%	2%	3%
Zilinsky Kraj	1,200	1,200	600	1%	3%	5%
Total	**12,800**	**12,800**	**6,400**	**1%**	**4%**	**5%**

Source: (1) Nielsen Empty Pack Surveys, 2014-2016.
(2) Novel Study, 2014-2016.
(3) Ipsos Empty Pack Surveys, 2014-2016.

Appendices - EPS results by country

Slovenia and Spain EPS results by region, 2014-16[1][2]

Slovenia	Number of packs collected			ND incidence in EPS		
Region	**2014**	**2015**	**2016**	**2014**	**2015**	**2016**
Celje	210	210	210	11%	9%	12%
Koper	139	139	139	2%	6%	11%
Kranj	208	208	208	9%	4%	13%
Ljubljana	1,539	1,539	1,539	11%	12%	13%
Maribor	531	531	531	7%	7%	15%
Novo Mesto	130	130	130	2%	3%	11%
Ptuj	101	101	101	8%	6%	12%
Velenje	142	142	142	18%	18%	17%
Total	**3,000**	**3,000**	**3,000**	**9%**	**10%**	**13%**

Spain	Number of packs collected			ND incidence in EPS		
Region	**2014**	**2015**	**2016**	**2014**	**2015**	**2016**
Andalucia	5,174	5,172	5,176	42%	33%	28%
Aragon	1,170	1,169	1,170	2%	2%	2%
Asturias	858	858	858	3%	3%	2%
Basque Country	1,534	1,533	1,534	5%	6%	5%
Cantabria	304	303	304	8%	6%	2%
Castilla Y Leon	1,320	1,318	1,320	5%	4%	2%
Castilla-La Mancha	296	295	296	8%	7%	1%
Catalonia	5,394	5,394	5,394	6%	6%	7%
Comunidad Valenciana	2,841	2,840	2,842	4%	5%	4%
Extremadura	258	257	258	45%	19%	6%
Galicia	1,130	1,130	1,130	7%	5%	4%
La Rioja	262	262	262	3%	3%	2%
Madrid	7,992	7,988	7,992	4%	6%	5%
Murcia	1,126	1,126	1,126	7%	7%	4%
Navarra	338	338	338	1%	4%	4%
Total	**29,997**	**29,983**	**30,000**	**12%**	**10%**	**9%**

Sources: (1) MS Intelligence Empty Pack Surveys, 2014-2016.
(2) Ipsos Empty Pack Surveys, 2014-2016.

Appendices - EPS results by country

Sweden EPS results by region, 2014-16[1]

Sweden	Number of packs collected			ND incidence in EPS		
Region	**2014**	**2015**	**2016**	**2014**	**2015**	**2016**
Blekinge	150	90	150	26%	14%	16%
Dalarna	150	112	150	10%	22%	11%
Gastrikland	190	190	190	4%	15%	14%
Halland	304	226	304	16%	11%	12%
Jönköping	233	233	233	9%	13%	14%
Kronoberg	154	154	154	24%	12%	15%
Norrbotten	150	136	150	1%	19%	15%
Örebro	272	272	272	5%	11%	12%
Östergötland	500	500	500	9%	8%	12%
Skåne	11,010	1,177	1,101	12%	13%	13%
Smaland	150	97	150	6%	20%	13%
Södermanland	316	225	316	8%	12%	14%
Stockholm	3,284	3,628	3,284	11%	13%	13%
Uppsala	355	355	355	11%	13%	14%
Värmland	162	163	162	2%	9%	8%
Västerbotten	359	299	359	4%	16%	10%
Västernorrland	150	146	150	6%	23%	12%
Västmanland	296	296	296	20%	13%	10%
Västra Götaland	1,724	1,732	1,724	9%	13%	12%
Total	**10,000**	**19,909**	**10,031**	**13%**	**11%**	**13%**

Source: (1) HUI Research Empty Pack Surveys, 2014-2016.

Appendices - EPS results by country

UK and Norway EPS results by region, 2014-16[1]

UK	Number of packs collected			ND incidence in EPS		
Region	**2014**	**2015**	**2016**	**2014**	**2015**	**2016**
East Midlands	3,000	2,000	4,000	26%	29%	26%
East Of England	3,300	2,200	4,400	22%	27%	28%
London	4,500	3,000	6,000	24%	28%	27%
North East England	1,500	1,000	2,000	23%	26%	27%
North West England	3,897	2,598	5,196	23%	28%	28%
Northern Ireland	1,500	1,000	2,000	23%	31%	27%
Scotland	3,297	2,198	4,396	17%	15%	15%
South East England	6,003	4,002	8,004	24%	29%	27%
South West England	2,700	1,800	3,600	25%	28%	26%
Wales	2,100	1,400	2,800	28%	31%	28%
West Midlands	3,603	2,402	4,804	27%	32%	26%
Yorkshire And The Humber	2,700	1,800	3,600	25%	30%	27%
Total	**38,100**	**25,400**	**50,800**	**24%**	**28%**	**26%**

Norway	Number of packs collected			ND incidence in EPS		
Region	**2014**	**2015**	**2016**	**2014**	**2015**	**2016**
Akershus	376	376	376	53%	48%	42%
Hordaland	866	866	866	50%	44%	43%
Oslo	2,012	2,012	2,012	45%	46%	45%
Ostfold	248	248	248	46%	46%	44%
Rogaland	419	419	419	42%	48%	42%
Sor-Trondelag	579	579	579	54%	45%	43%
Vest-Adger	273	273	273	45%	41%	39%
Troms	227	227	227	40%	55%	42%
Total	**5,000**	**5,000**	**5,000**	**47%**	**46%**	**43%**

Source: (1) MS Intelligence Empty Pack Surveys, 2014-2016.

Appendices - EPS results by country

Switzerland EPS results by region, 2014-16[1]

Switzerland	Number of packs collected			ND incidence in EPS		
Region	2014	2015	2016	2014	2015	2016
Aargau		200	200		24%	14%
Basel	400	400	400	10%	15%	15%
Bellinzona	200			17%		
Bern	300	900	900	7%	11%	12%
Biel (Bienne)	200			6%		
Chur	200			7%		
Delemont	200			5%		
Fribourg	200	200	200	5%	10%	14%
Geneva	500	700	700	8%	18%	31%
Grisons		200	200		28%	13%
Jura		200	200		15%	10%
Koniz	200			3%		
Kreuzlingen	200			13%		
La Chaux De Fonds	200			6%		
Lausanne	300			7%		
Lugano	200			25%		
Luzern	200	200	200	9%	8%	14%
Neuchatel	200	400	400	9%	14%	11%
Rheinfelden	200			14%		
Schaffhausen	200	200	200	10%	11%	12%
Sion	200			5%		
St. Gallen	200	400	400	9%	16%	15%
St. Margrethen	200			21%		
Thun	200			10%		
Thurgau		200	200		16%	12%
Ticino		400	400		31%	10%
Uster	200			6%		
Valais		200	200		7%	8%
Vaud		300	300		9%	16%
Vernier	200			19%		
Winterthur	300			6%		
Zurich	1,000	1,500	1500	9%	8%	12%
Total	**6,600**	**6,600**	**6,600**	**9%**	**14%**	**15%**

Source: (1) MS Intelligence Empty Pack Surveys, 2014-2016.

Appendices - Sources

Appendices - Sources

External data sources

The sources listed below are those used only in the 2016 analysis in this 2015 Project SUN Report. Sources for analysis and findings for previous years can be found in previous year reports

Other Sources
Croatian Bureau of Statistics, 2016
EC average price of most popular brand for non-EU countries
EC Excise Duty tables (Part III – Manufactured Tobacco) , January 2016
EC Excise Duty tables (Part III – Manufactured Tobacco) , January 2017
EU Tax Tables and pricing information on most sold brands outside of EU
Economist Intelligence Unit, GDP and PDI data 2016
Euromonitor, 2016
European Commission, Revision of Tobacco Products Directive (2014/40/EU), May 2016
Douane et droits indirect, Results, 2016
Government of Andorra Statistics, 2016
Government of Gibraltar Statistics, 2016
Istec, Canary Island visitor numbers, 2015
KPMG analysis of data sources provided by manufacturers
KPMG analysis of manufacturers operating in Free Trade Zone
KPMG analysis of OLAF Press Release February 2016 and June 2016
KPMG analysis of UNWTO Factbook 2012-2015
KPMG EU Flows Model 2012- 2015
KPMG EU Flows Model 2016
National Institute of Economic research, Sweden 2016
OECD data, country profile of Hungary and Ireland, 2017
Smoking and tobacco consumption in Norway – summary, Norwegian Institute of Public Health
Transport and Traffic statistics, Schiphol Telematics, 2016
WTO data, 2016
Personal Disposable Income 2015-16, Economics Intelligence Unit
PMI tax table calculation from Neilsen data

Appendices - Scope of work

Appendices - Scope of work

The scope of work below forms the basis of our contract with the Beneficiaries

Methodology and Reporting

1. This study will report on the estimated size and composition of the total cigarette market (including counterfeit and contraband products), as detailed below, for each of the 28 EU Member States, Norway and Switzerland.
2. The findings from the work on the 30 countries will be used to produce a report which includes an executive summary covering an overall view of the total market for the 28 EU Member States (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. We will also provide a section in the report on counterfeit and contraband flows for each of the 30 countries.
3. Each country report will consist of four pages which will include a 2-page summary showing total counterfeit and contraband ("C&C") consumption, total manufactured cigarette consumption and a map showing major flows of cigarettes between countries. The third and fourth pages will include a table detailing total manufactured cigarette consumption from 2009 to 2016, along with charts showing the Non-Domestic Legal (ND(L)) and C&C by source country and by brand. The commentary will be factual and will source publicly available data on tobacco prices, traveller data, smoking prevalence and total tobacco consumption (including OTP) where relevant. The commentary will also source country specific fieldwork undertaken by RUSI and provided to KPMG in countries where research has been undertaken over the past eighteen months.
4. Our analysis of the cigarette market will be based on a methodology that incorporates primary research, market analysis and existing industry surveys.
   - For each of the 30 countries, we will use in market sales data provided by Philip Morris International Management SA (PMI) 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 PMI.
   - Non domestic inflows for each country will be based on the results of Empty Pack Surveys and added to Legal Domestic Consumption to estimate Total Consumption.
   - Analysis of tourism flows and border sales data provided by PMI and Imperial Tobacco Limited (Imperial Tobacco) will be used to estimate the proportion of non-domestic inflows that are counterfeit and contraband for each of the 30 countries
   - The bespoke Project SUN methodology will be used to analyse the inflows and outflows between all of the 30 countries, based on the data sources above.
   - Additional data sources (as per point 11 below) will be used to refine our analysis.
   - We will include a methodology section in our report detailing the research process, highlighting its key strengths and providing comparisons with other approaches to estimating illicit tobacco consumption, including seizures data and consumer surveys.
5. KPMG will also conduct analysis on illicit whites which will be analysed in the same way as point 3 above. This will be reported in the consolidated section of the report.
6. Upon finalisation of our work, KPMG will provide separately to RUSI data tables containing the following information:
   - Summary of EU total counterfeit and contraband inflows by source and destination market; and
   - Detailed analysis of total non-domestic outflows to the EU split by destination market and brand; and
   - Collation of both source and brand matrix to enable analysis of source and market in the same tables
7. KPMG will present initial findings to RUSI in the form of country specific reports. We understand that RUSI will disclose the initial findings reports to [PMI, Imperial Tobacco and BAT (together defined for the purposes of this letter as the "Industry Participants")] for the purposes of factual accuracy discussions. The KPMG Project SUN team will also be made available to support up to two other external stakeholder presentations following the completion of the report under the terms of this agreement. Additional presentations or interviews, translation costs and the costs of KPMG personnel from other KPMG network firms are outside the scope of this letter and we would agree on the costs of such services with you separately and in addition to the fee as per section 6 of the Engagement Letter.

Process

8. KPMG will manage the overall day-to-day process and will arrange factual accuracy discussions with the Industry Participants to consider the results of the analysis and such discussions will also be attended by RUSI. RUSI will be responsible for procuring the involvement of the Industry Participants in the factual accuracy discussions arranged by KPMG in accordance with the timetable as agreed between KPMG and RUSI. KPMG will provide agenda and meeting minutes for all [factual accuracy] meetings planned, as well as take responsibility for leading the meetings and collating feedback from the Industry Participants and RUSI, ensuring that the subject matter discussed will be confined to the project only. KPMG will request additional data where necessary. A dashboard which tracks data provided and highlights [potential?] delays will be provided by KPMG to RUSI. RUSI will be responsible for ensuring that the Industry Participants provide such data.

Appendices - Scope of work

9. KPMG will undertake factual accuracy discussions where required with each of the Industry Participants and with RUSI for 9 priority countries to help build understanding of: data sources and their limitations; first draft results and their possible implications for the country's anti-illicit trade activity; fact gaps and hypotheses; and additional research requirements.
   - The 9 priority markets are: Bulgaria; France; Germany; Greece; Italy; Poland; Romania; Spain; and UK

   In addition, KPMG will have factual accuracy discussions with each of the Industry Participant Duty Free teams. RUSI will also attend such discussions.

   In order to hold these factual accuracy discussions, KPMG will share country specific preliminary results with the management teams and RUSI of the Industry Participants for each of the priority EU Member States as outlined above. The discussions provide opportunity for feedback and comment from each of those management teams and RUSI. These discussions can be arranged in advance by KPMG and RUSI will be responsible for procuring that the Industry Participant country management teams comment verbally on the draft reports. In the event that a participant does not provide sufficient comments within the timeframe, the report publication date will be delayed.

   For the remaining 21 non-priority countries, KPMG will share preliminary findings of the analysis with the management teams of the Industry Participants and RUSI for each non-priority country via a central point of contact for each the Industry Participants in a process agreed between RUSI and the Industry Participants. We understand that comments on the factual accuracy of these reports from non-priority countries will be collected centrally by a point of contact for each Industry Participant and communicated to KPMG and RUSI. KPMG will hold discussions with the management teams of non-priority countries on an exceptions basis and RUSI will attend such discussions.

   It should be noted that KPMG will only agree to make changes and undertake additional analysis which may be requested by the Industry Participants where such changes and additional analysis have first been agreed by the Industry Participants with RUSI. KPMG will be responsible for managing the transparency and alignment of the revision process. RUSI will be provided with the "pre-final" report and will be responsible for providing feedback from industry participants within 10 working days (including legal reviews). It should be noted that KPMG will determine which comments and amendments to make to our report.

10. In addition to the detailed report and management update meetings, KPMG will also undertake to manage and lead key intervention sessions between RUSI and the Industry Participants and the KPMG team, as set out below. RUSI will be responsible for procuring the involvement of the Industry Participants in such meetings in accordance with the timetable agreed between RUSI and KPMG:
    - Project Kick Off (to take place week commencing 2nd May 2017) to agree detailed project process and approach, reporting format and highlight potential communication considerations;
    - A review of updated EU and country level findings for each of the 30 countries and address key challenges and actions, to take place in early June 2017;
    - A review to agree on final changes to the report to take place in the third week of June 2017.

Data Sources

11. Information from several independent sources will be used. These sources are set out below.

- Tobacco industry research and statistics;
  - In Market Sales data provided by the Industry Participants and/or Tobacco Manufacturers' Associations. Where Industry Participants have separate sales data which improves the accuracy of the total industry sales data this will be provided during the factual accuracy process. The Project SUN report will only provide aggregated sales data that cannot be attributed to any Industry Participant;
  - Consumer survey data will be provided by Industry Participants where available to help demonstrate trends discussed during the factual accuracy discussions from Project SUN results and identify further areas of analysis (e.g. extent of smokers switching to roll-your-own (RYO) products).
- Estimates of non-domestic consumption used by the Industry Participants in each market (where available) will be shared during the factual accuracy discussions. These estimates provide evidence-based support for observed trends in each of the EU Member States, Switzerland and Norway and will remain confidential. This will comprise:
  - Detailed survey results; and
- Information regarding the methodology and sampling plan. Existing public studies and statistics;
- Existing public studies and statistics;
  - Research and data published by government agencies (including Ministries of Finance), health bodies, customs authorities, market researchers and academics will be provided by Industry Participants teams to help corroborate findings.

12. Data from external sources will be obtained on a best efforts basis by KPMG. We will require access to identified Industry Participant personnel throughout this engagement which will be enabled by RUSI and our ability to deliver this scope depends on this access being made available.

If you would like further information, please talk to your usual KPMG contact or contact:

Jessica Liebmann
KPMG press office
T: +44 20 7311 3245

www.kpmg.com/uk

Create Graphics I CRT080692 I July 2017