



Illicit cigarette trade in the Maghreb region

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Included in the report are a number of stand-alone sections written by the Royal United Services Institute (RUSI). The analysis undertaken and views expressed in these chapters are RUSI's views alone and not part of KPMG's analysis. These appear in the Executive Summary on pages 5, 6 and 13, in the country sections on pages 19, 24, 29 and 34, in the 'RUSI Analysis: Illicit Trade in Cigarettes and Other Diverted Products in the Maghreb' chapter on pages 35 to 44, and the methodology section on page 54.

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 manufactured cigarette market within the Maghreb region 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.

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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 other 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.

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Glossary

GLOSSARY

Average Daily Consumption	Daily average consumption by the population of the legal smoking age
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
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 PMI
Country of origin	Country from which the packs collected are deemed to have originated. This is determined by either the tax stamp on the pack or in cases where the tax stamp is not shown, on the health warning and packaging characteristics
Duty Free	Cigarettes bought without payment of customs or excise duties
EPS	Empty Pack Survey
EU	European Union
Maghreb 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
FTZ	Free trade zone
GCTS	PMI's Global consumer tracking survey, providing an analysis of cigarette consumption and smoking prevalence
Illicit Whites (IW)	Cigarettes that are usually manufactured legally in one country/market but which the evidence suggests have been smuggled across borders during their transit to the destination market under review where they have limited or no legal distribution and are sold without payment of tax
Illicit Whites with no country specific labelling	Packs of Illicit White Cigarettes which have "duty free" or no identifiable labelling on the packs
IMS	In Market Sales (the primary source of legal domestic sales volumes)
Inflows/Outflows	Inflows of non-domestic product into a market / outflows of product from a market
LDC	Legal Domestic Consumption is defined as Legal Domestic Sales (LDS) net of outflows

GLOSSARY

LDS	Legal Domestic Sales of genuine domestic product through legitimate, domestic channels based on In Market Sales (IMS) data
LPI	Logistics Performance Index
Maghreb	The Maghreb region in this study consists of Morocco, Algeria, Tunisia and Libya
Mn	Million
ND	Non-Domestic product – product that originates from a different market than the one in which it is consumed
ND(L)	Non-Domestic (Legal) – product that is brought into the market legally by consumers, such as during a cross-border trip
OCG	Organised Crime Group
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
UAE	United Arab Emirates
Unspecified	Unspecified market variant refers to cigarette packs which do not bear specific market labelling or Duty Free labelling
UNWTO	World Tourism Organisation

Executive Summary

Key findings

Illicit cigarettes accounted for over 20% of consumption across the Maghreb region in 2016, however successful prevention strategies have resulted in a 24% decline since 2015

- The 13 billion cigarettes consumed represented over US\$565 million in lost tax revenues, when taking into account both taxation on cigarettes and import related tariffs where applicable
- Over 80% of illicit cigarettes consumed were Illicit White brand flows: cigarettes identified with no legal distribution within the countries of study
- Over 7.4 billion of the illicit cigarettes are believed to originate from trademark owners based in UAE Free Trade Zones

C&C reduced from 17 billion to 13 billion cigarettes between 2015 and 2016

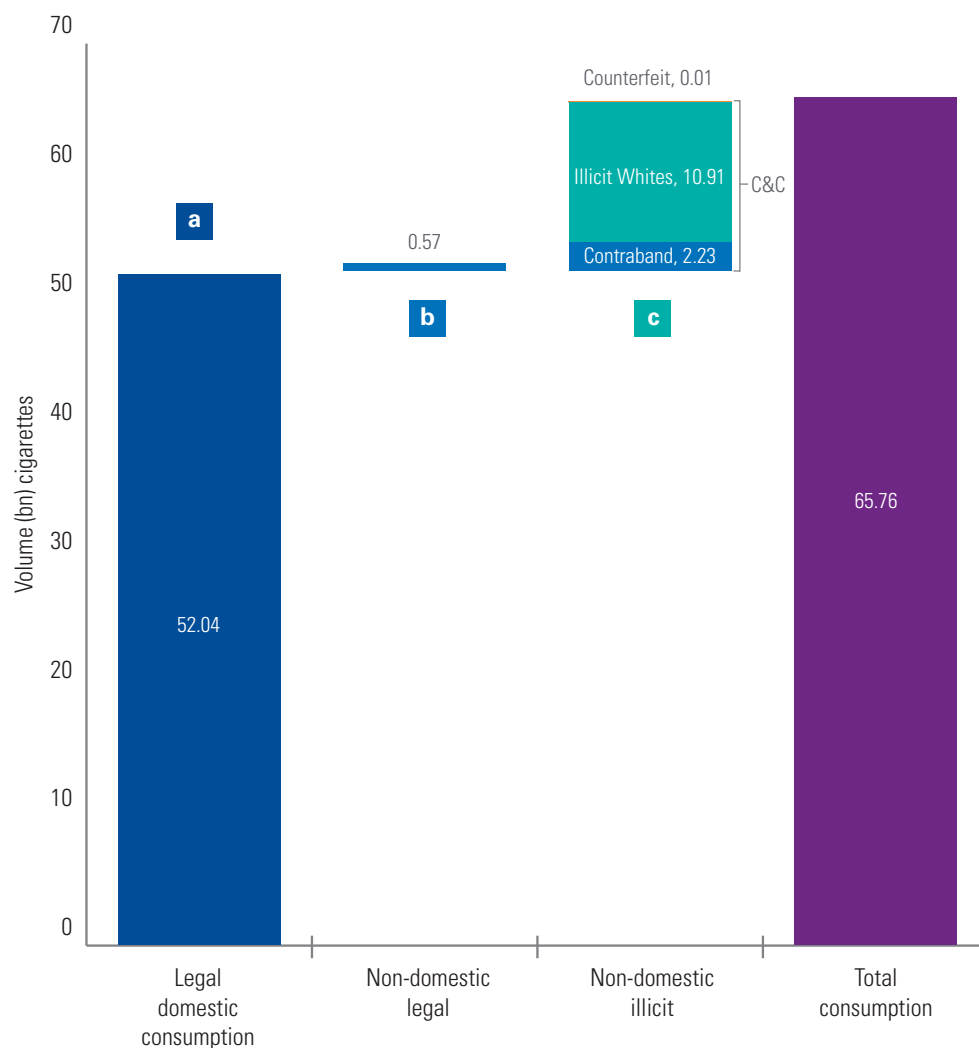
- Consumption of illicit cigarettes has declined against a backdrop of increased law enforcement and narrowing price gaps between countries within the region, reducing the incentive to smuggle cigarettes
- Additional investment in land border security, including fences, trenches and surveillance drones, may have contributed to this decline
- Algeria, the highest outflow country in the region, also has the lowest prices. Outflows declined from 6.6 billion to 5.1 billion between 2015 and 2016, amidst a joint effort by both law enforcement and cigarette manufacturers to reduce the flows of cigarettes to neighbouring countries

Cigarette smuggling in the region constitutes just one part of a broader illicit trade landscape^(a)

- Morocco, Algeria, Tunisia and Libya all subsidise staple products from bread to sugar, oil and construction materials, which creates price differences and an incentive to smuggle goods across borders
- These commodities are often moved across borders in exchange for other smuggled products, including vehicles, raw materials, livestock, fertilisers, ceramics, spare parts and electrical appliances
- Facilitating this trade are the region's long borders, which are difficult to police. However, strengthened border control in parts of the region has been witnessed more recently, in order to counter the dual threats posed to national security from terrorism and to the economy from lost excise

Note: ^(a) This report provides an overview of illicit trade, understood as the unlawful production, transportation or sale of otherwise legal commodities. It does not cover trafficking in illegal goods, such as drugs and weapons.

Manufactured cigarette consumption by type, 2016



Throughout the report, our analysis focuses on the following categories of cigarette consumption:

a Legal domestic consumption

- Cigarettes legally purchased and consumed within the country of study, based on LDS data

b Non-domestic legal

- ND(L) is low in the Maghreb region as travel between countries tends to be infrequent, which results in low volumes of cross-border sales

c Non-domestic illicit – divided into three components

- **Illicit Whites:** Cigarettes that are usually manufactured in one country or 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
- **Contraband (Other):** A low volume of product where tax was paid legally in one country but evaded in another
- **Counterfeit:** Counterfeit was only identified for PMI products

RUSI Analysis: Illicit Trade in Cigarettes and Other Diverted Products in the Maghreb

Commodities

Illicit trade in the Maghreb is a **longstanding form of cross-border activity**, and an important component of local political economies. Understood as the unlawful production, transportation or sale of otherwise legal commodities, illicit trade includes a significant range of goods^(a). These are smuggled across vast, sparsely populated spaces, dissected increasingly by officially closed and reinforced borders. Many of these borders remain porous – traversed by illicit flows of goods for which demand exists on both sides

Alongside cigarettes, smuggled goods transiting the region include black-market pharmaceuticals and alcohol. They also comprise vehicles, raw materials, livestock, fertilisers, ceramics and electrical appliances, which can be smuggled past customs and border controls. Many of these goods are subsidised: Morocco, Algeria, Tunisia and Libya each subsidise a range of **products from bread to sugar, fuel and construction materials**. These subsidies create price differentials, and thus potential profits where goods can be sold below market value elsewhere

Enabling Factors

Subsidies – and other variations in commodity prices – act as enablers of illicit trade. Differing domestic availability dictates further the kinds of goods smuggled, as consumer tastes demand. An additional incentive lies in the limited consequences of involvement: in a region **criss-crossed by flows of drugs and arms**, as well as terrorist organisations, illicit trade is rarely prioritised. In some cases, commodity smuggling appears to have been unofficially decriminalised, with border agents allowing goods to pass in exchange for a small ‘fee’

Alongside corruption, high levels of social acceptability may influence the low priority assigned to illicit trade. Tellingly, **many citizens refer to commodity smuggling as ‘innocent smuggling’**, in reference to fuel, food, medicine and a range of other goods. Across the region, such activity is rarely viewed as ‘criminal’; instead, it forms a critical part of livelihood strategies in areas deprived of public investment. In a worsening economic climate in many locations, illicit trade stands for many citizens as the only viable source of income

Border Context

Across the region, the nature and characteristics of illicit trade vary from location to location. A key factor dictating patterns of illicit trade at borders is the extent to which they remain open, or have been officially closed. Across the region, **border after border has been officially sealed**, in some cases with fences, walls or trenches. The Algeria–Morocco border, notably, has been closed since 1994, with a border trench completed in 2016. Others remain open and more permeable; Libya’s border with Niger remains lightly manned since the revolution, when Gaddafi-era officials abandoned their posts

Other differences lie in the nature of the broader illicit economy in which smuggling plays out. At the Libya–Niger border, illicit trade must be viewed in conjunction with the growth of the ‘Central Route’ funnelling irregular migrants from Agadez, Niger north to the Libyan coast. ‘Dual smuggling’ here can see migrant smuggling and illicit trade intersect, as smugglers engage in both activities at once. At the Libyan–Tunisian border, meanwhile, **smugglers deal in different staple goods simultaneously**. A common modus operandi observed is for Tunisian smugglers to drive to Libya carrying couscous, pasta and eggs to sell on at a profit in Libya. When in Libya, they fill their vehicles with subsidised Libyan fuel and other commodities, which they smuggle home for sale

Note: ^(a) This analysis focuses on illicit trade as described here, and does not consider in detail trafficking in illegal goods such as drugs and arms. As such, it should be noted that this analysis provides only a partial picture of the wider range of criminality playing out across the region.

Shifts in the Illicit Trade Landscape

Recent years have seen an **enhanced emphasis on border security** in parts of the region. Though targeted primarily at disrupting the activities of terrorist organisations and 'higher-profile' trafficking, this has started to impact illicit trade. In parallel, national authorities have launched concerted initiatives targeting commodity smuggling. These have driven adaptations in smuggling techniques, including a shift towards 'little and often' smuggling, whereby goods are split into smaller consignments. In other areas, groups have grown more organised in response – and more violent in their encounters with law enforcement

These trends play into **longer-standing shifts in the illicit trade landscape**, particularly in the wake of the Arab Spring. Notably, the turbulent transitions of the period saw intensified competition as protections offered to key smuggling groups by erstwhile leaders fell away. These shifts play out differently at different borders: illicit trade is always driven by context, informed by the economic, social and political factors playing out at any one time, in any one place.

An Economic Reality

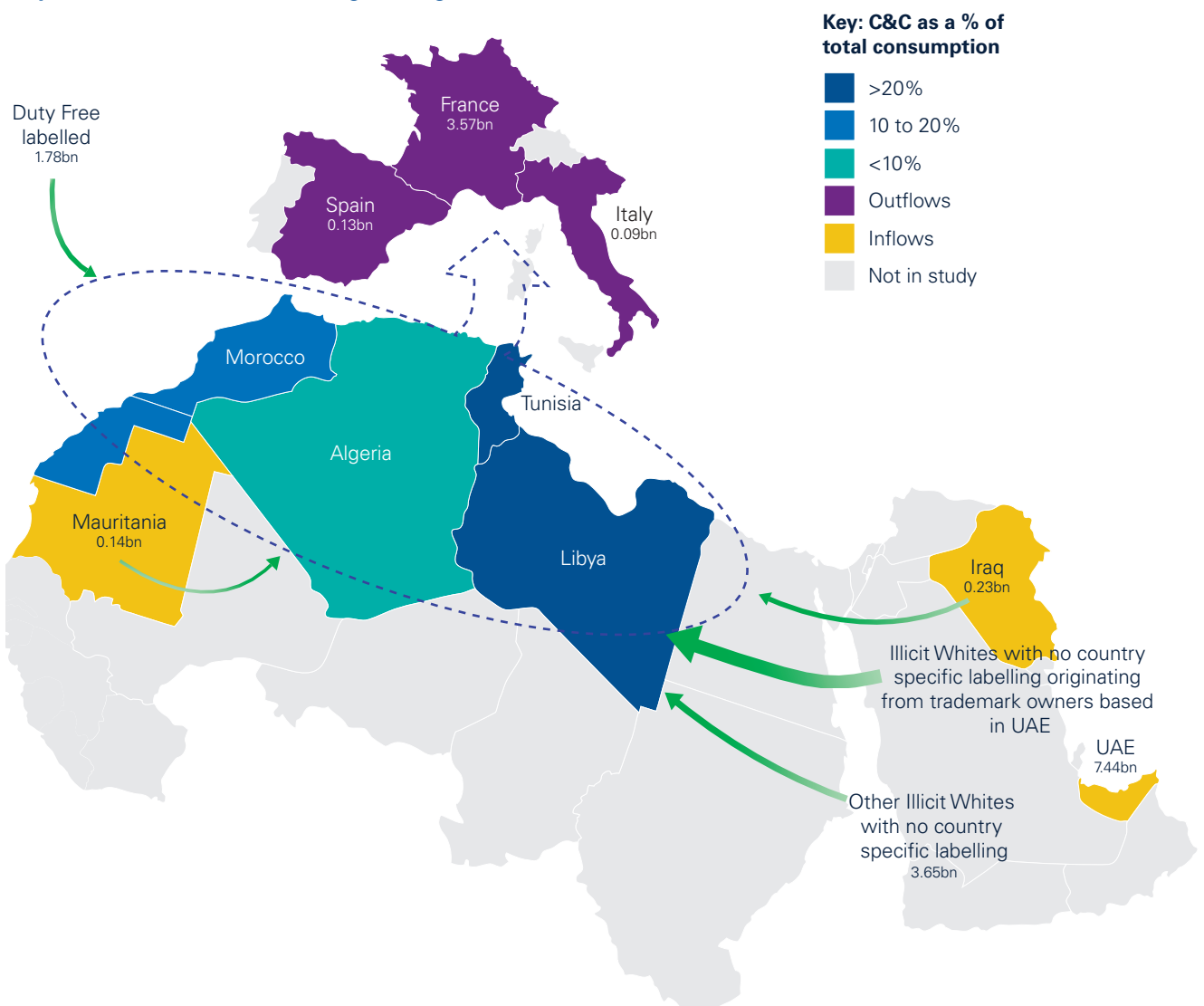
Common to all borders is the social acceptance and normality of smuggling noted previously. **Many borderlands form a cohesive economic unit**, despite their bisection by a national boundary. In northern Niger, for example, many citizens share longstanding tribal and family ties with communities in southern Libya, on which they rely for illicit trade. In this context, **illicit trade forms a crucial part of local political economies** and security structures. It also forms a critical economic lifeline for communities facing high unemployment

Its impacts, however, can be highly damaging. These extend from opening pathways for other forms of trafficking, to driving corruption and depriving economically weakened states of revenues. Increasingly, governments have begun to crack down on smuggling in an effort to address these threats. As they do so, however, the local realities of illicit trade across the Maghreb's land borders cannot afford to be ignored

The Maghreb region plays a role as both an inflow and outflow region

- The largest flow into the region came from cigarettes identified from trademark owners based in Free Trade Zones in the United Arab Emirates, representing 57% of C&C identified in the study
- Tunisia has the second largest volume of illicit cigarette consumption in the region. Many of the brands identified were similar to those identified in Libya, indicating that once cigarettes arrive in Libya, some are transferred across the border
- Algeria, the lowest priced country in the study, experienced the lowest volumes of illicit cigarette consumption
- Flows from Algeria were identified in other countries within the study, reflecting the price differences between each country
- The largest illicit cigarette consumption was in Libya, where over 5 billion of Illicit Whites brand flows were identified

Key flows into and out of the Maghreb region, 2016 ^{(a)(1)}



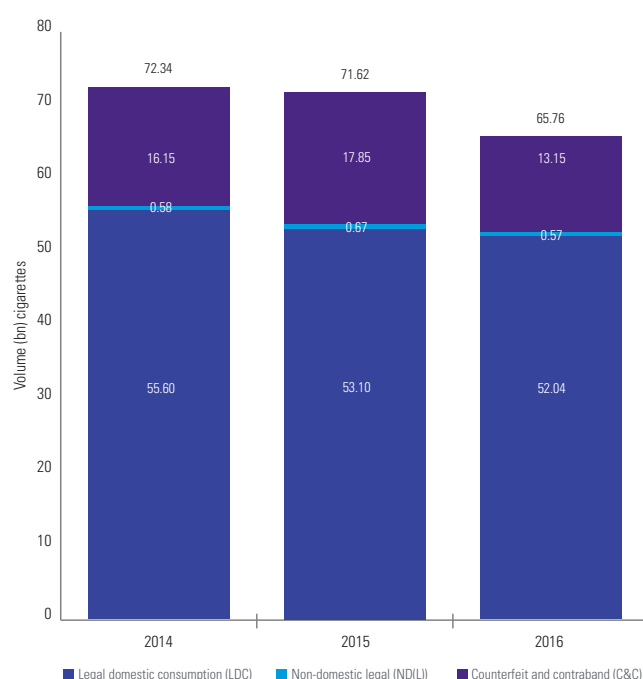
Note: ^(a) The flows in this map are a sum of the combined flows into and out of the Maghreb region

Source: ⁽¹⁾ KPMG Maghreb Flows Model

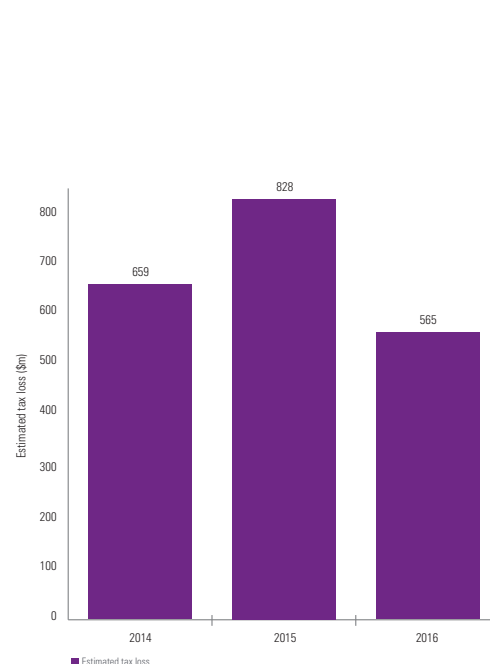
The region experienced declines in both C&C and overall consumption against a backdrop of price increases and enhanced border security

- In each of the countries in the study, average prices rose by more than 10% between 2014 and 2016
- Across the region, C&C declined by an annual rate of 9.8% between 2014 and 2016 against a backdrop of enhanced border security and efforts by manufacturers to make illicit cigarette trading more difficult, including supply chain and genuine cigarette identification
- The key drivers of non-domestic legal are high legal cigarette limits and travel flows between countries. The closed borders in the region, resulting in limited travel between countries, reflect low volumes of ND(L)

Manufactured cigarette total consumption, 2014 – 2016⁽¹⁾



Estimated tax loss, 2014-2016^{(2)(3)(a)(b)}



CAGR (%)	2014-16	2015-16
Legal domestic consumption	(3.3%)	(2.0%)
Non-domestic legal	(1.3%)	(15.3%)
Counterfeit & contraband	(9.8%)	(26.3%)
Total	(4.7%)	(8.2%)
Estimated tax loss	(7.4%)	31.7%

Notes: ^(a) For Libya, the estimated tax loss represents the estimated loss of customs revenue

^(b) Total estimated tax loss for 2014 does not include tax loss in Algeria

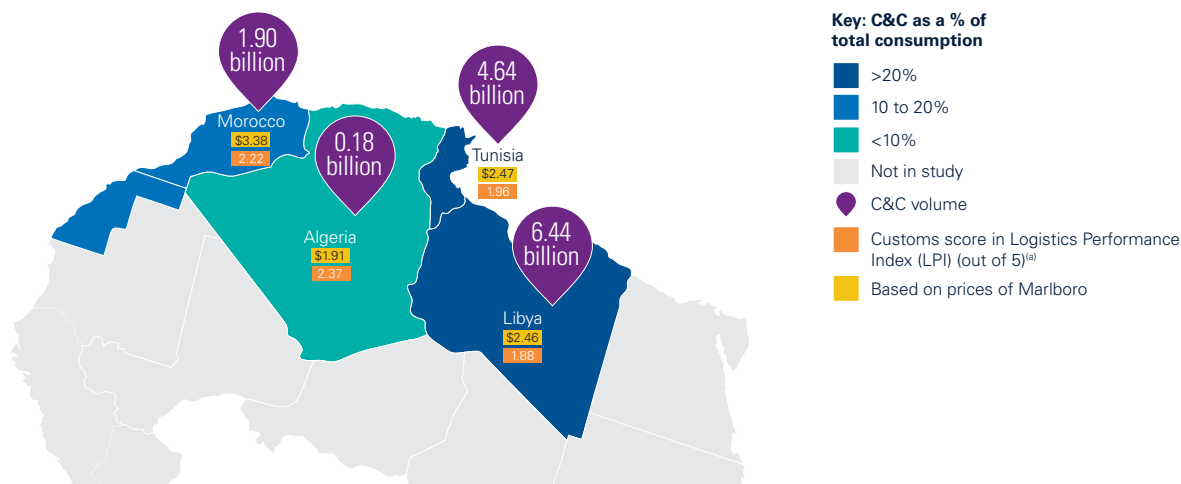
Sources: ⁽¹⁾ KPMG Maghreb Flows Model 2014-2016

⁽²⁾ PMI cigarette prices using the price of the most popular brand and tax tables

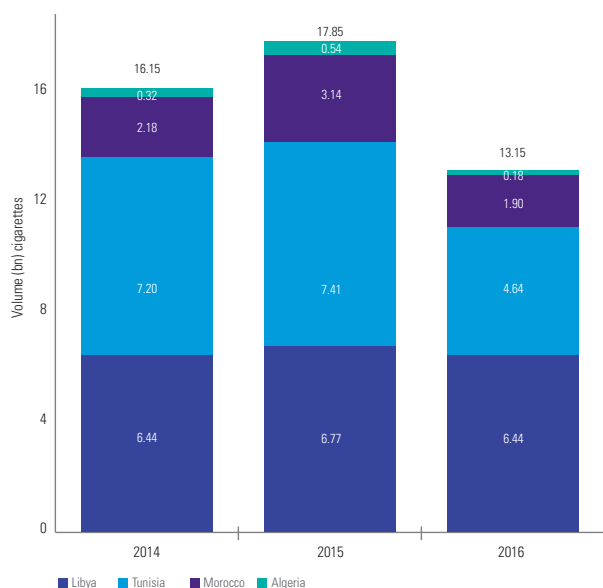
⁽³⁾ Doing Business in Libya: 2014 Country Commercial Guide for U.S. Companies, United States Department of Commerce

Illicit cigarette consumption in the Maghreb region was highest in Libya and Tunisia

Illicit cigarette consumption, 2016 ⁽¹⁾⁽²⁾⁽³⁾



C&C cigarette consumption by country, 2014-16 ⁽¹⁾⁽²⁾



- Libya had the highest volume of illicit trade at 93% of all cigarette consumption, against a backdrop of geopolitical instability and low levels of domestic production
- Efforts to reduce illicit trade in Morocco and Tunisia, through increased law enforcement and the introduction of lower priced brands to compete with the illicit trade, appear to have contributed to the decline
- Algeria experienced a low inflow volume of illicit cigarettes, as both low prices and strongly policed borders prevented additional cigarette smuggling. It remained a key outflow market for illicit cigarettes to bordering countries and the EU
- The Logistic Performance Index^(a) for Customs, provided by the World Bank, indicated scores across the region of under 3, which is low compared to EU countries and may help to explain the comparatively higher levels of C&C within the region

Note: ^(a) The international Logistics Performance Index score for Customs reviews Efficiency of the clearance process (i.e., complexity and predictability of formalities) by border control agencies, including measures to benchmark countries' performance. The measure is relative to other countries around the world and the score is measured between 1 and 5

Sources: ⁽¹⁾ KPMG Maghreb Flows Model 2014-2016

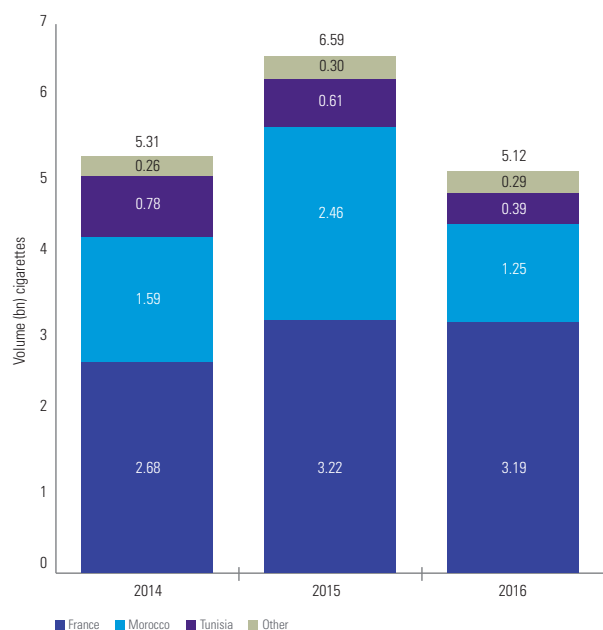
⁽²⁾ Logistics Performance Index, 2016, The World Bank

⁽³⁾ PMI cigarette prices using the price of premium brand and tax tables as at October 2016

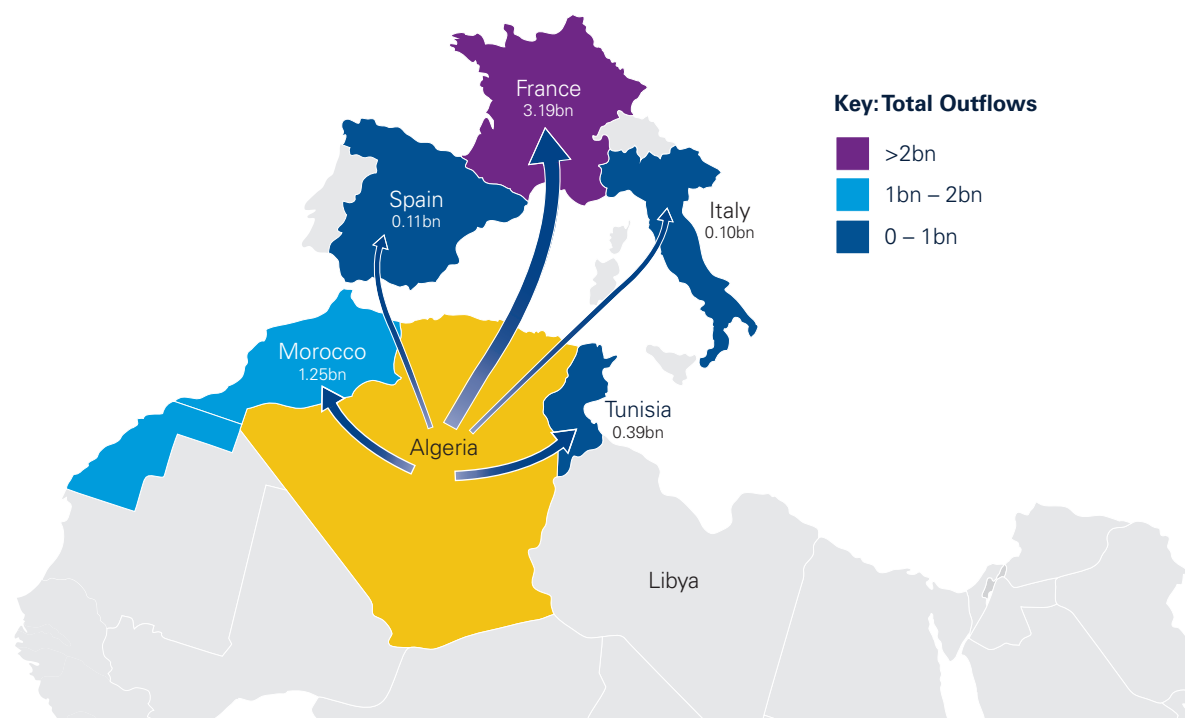
Outflows from Algeria to other countries reflect its lower prices

- Economic instability, resulting in lower cigarette prices compared with the rest of the region, has resulted in Algerian outflows to neighbouring countries and Europe
- Outflows declined in 2016, against a backdrop of increased law enforcement activity, border security, especially on the Algeria-Morocco border, and efforts by cigarette manufacturers

Outflows from Algeria, 2014-16⁽¹⁾



Key outflows from Algeria to other countries, 2016^{(1)(a)}



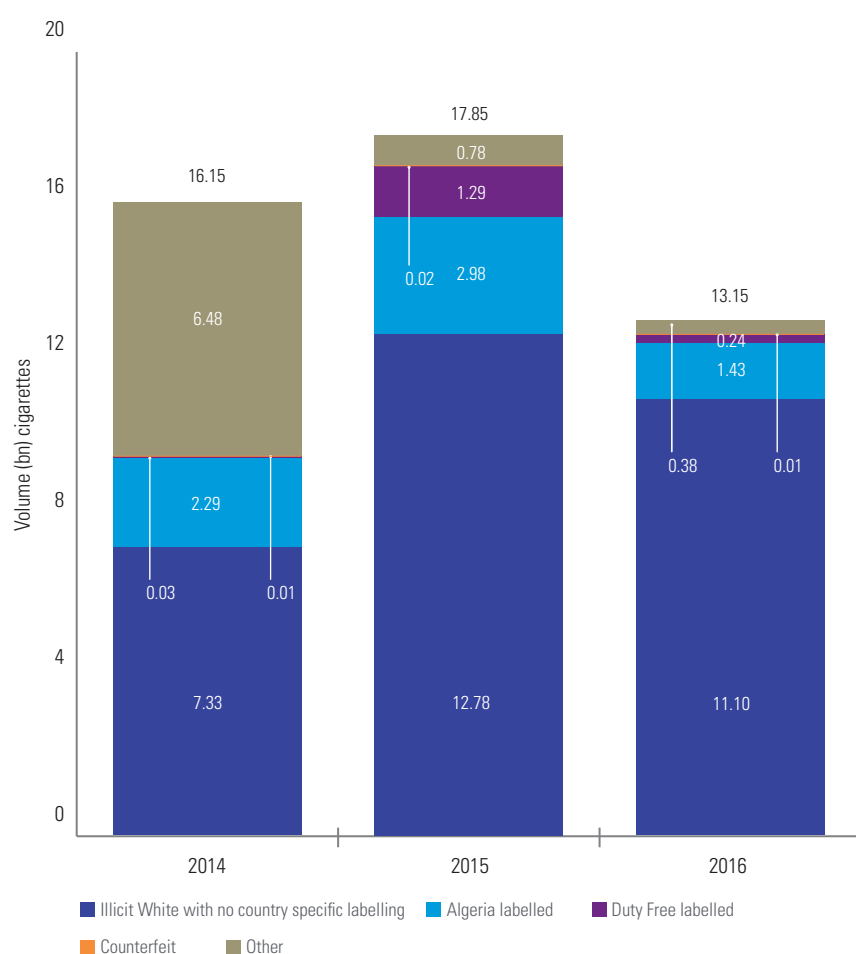
Note: ^(a) Project Sun's model has been used to calculate outflows from Algeria

Source: ⁽¹⁾ KPMG Maghreb Flows Model

Illicit White brand flows with no country specific labelling accounted for the majority of C&C consumption in the Maghreb region

- Illicit Whites with or no country specific labelling have limited legal distribution. Seizure information indicates that Illicit Whites tend to be smuggled in high volumes and it is suggested that they can be transported into Libya undetected
- Genuine cigarettes from Algeria and Mauritania also appear in the study, reflecting the low prices in these countries, compared to Tunisia and Morocco

Sources of C&C by volume, 2016^{(1)(a)}

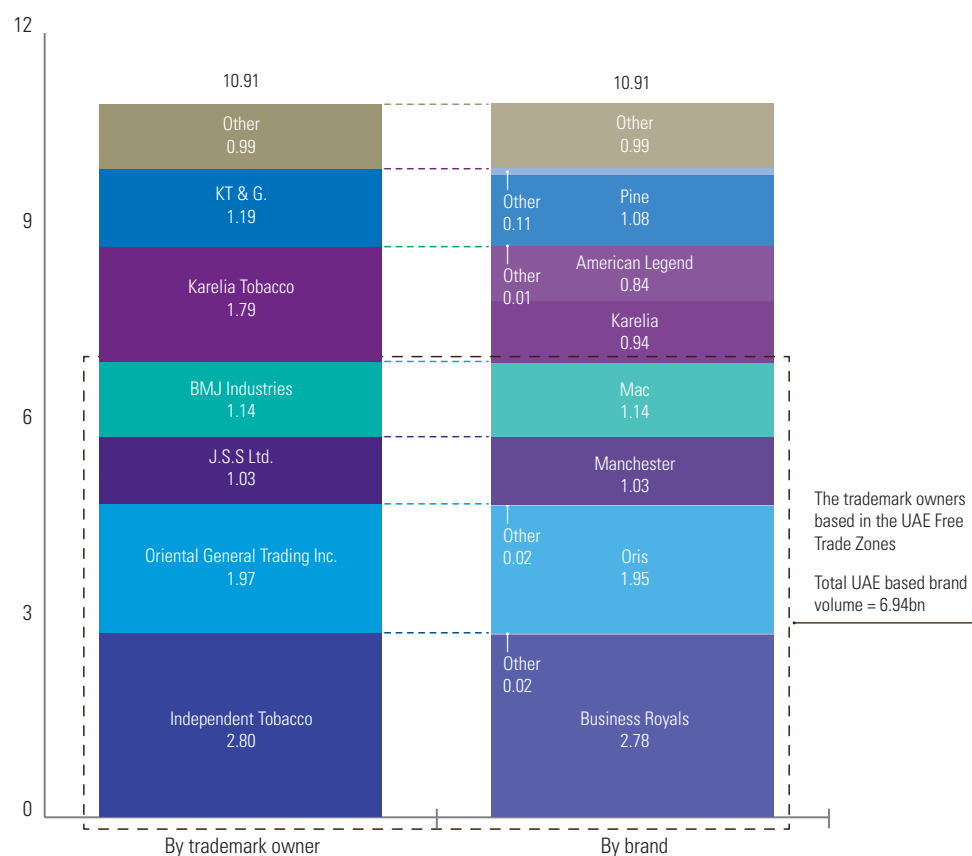


Note: ^(a) Estimated C&C consumption in Libya for 2014 of 6.44bn sticks is included in 'Other'

Sources: ⁽¹⁾ KPMG Maghreb Flows Model 2014-2016

- The main Illicit Whites brands identified came from a limited number of trademark owners, making it possible to estimate the source of some of the products
 - The largest identified trademark owners of Illicit Whites brands, Independent Tobacco and Oriental General Trading Inc, which manufacture Business Royals and Oris respectively, are based in the UAE and sell cigarettes out of UAE Free Trade Zones
- Karelia Tobacco is based in Greece. American Legend is also identified as an Illicit White brand in Europe
- Pine, trademark-owned by KT & G, is a well-known Illicit White brand across the world, also identified in Central America













Illicit White cigarette consumption by trademark owner and brand, 2016⁽¹⁾



Sources: ⁽¹⁾ KPMG Maghreb Flows Model

RUSI Analysis: Illicit Trade in Cigarettes and Other Diverted Products in the Maghreb

Key commodities smuggled

-  Cigarettes
-  Alcohol
-  Pharmaceuticals
-  Fuel
-  Foodstuffs
-  Vehicles
-  Household appliances
-  Construction equipment
-  Chemical fertilisers
-  Raw materials
-  Ceramics
-  Livestock



Incentives:

-  Government subsidies on a range of commodities, which enhance price differentials and thus the profits available from smuggling
-  Differences in product availability, which increase demand and thus the profits from smuggling
-  The ability to exploit government policies, such as those in Algeria, which encourage the movement of foodstuffs from the north to the south of the country
-  Food insecurity in border regions, which creates demand for smuggled food products
-  The low-risk, high-reward nature of illicit trade, including the lack of prioritisation by authorities relative to threats perceived to be more immediate

Enabling factors:

-  Lack of state control, which allows the groups involved to operate with impunity, especially in Libya
-  High levels of social acceptability of illicit trade, whereby smuggling in many goods is not viewed as a crime by most citizens
-  Corruption at key borders, which facilitates smuggling activity
-  Unemployment in many border communities, making illicit trade one of the only viable sources of income
-  Limited consequences of involvement, including limited chances of punishment or prosecution

Country results

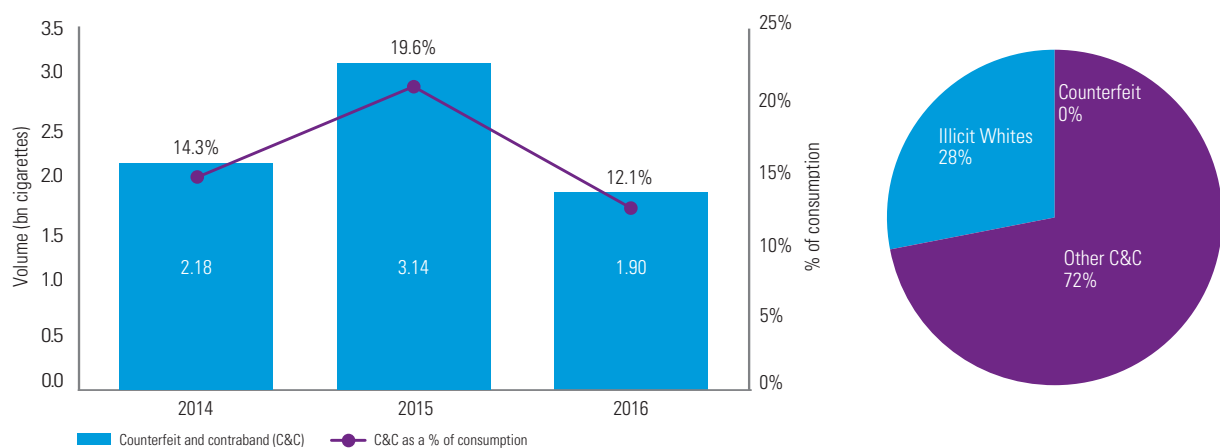


Morocco

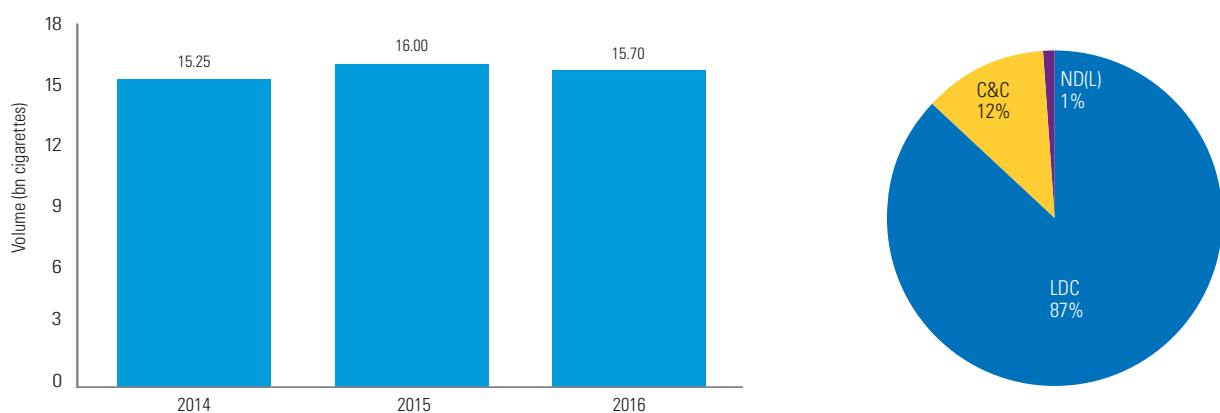
Overview:

- C&C volumes dropped by 39% from 2015 to 2016 against a backdrop of heightened law enforcement in both Morocco and Algeria, but still accounted for over 12% of total consumption
- The largest flow of illicit cigarettes was from Algeria, accounting for 65% of total C&C inflows into Morocco
- 38% of cigarette consumption in Morocco is accounted for by single cigarette purchases. This practice of purchasing and re-selling single cigarettes is illegal. This practice can make detecting illicit cigarette by consumers more difficult, as they do not know the origin of the cigarettes purchased⁽¹⁾

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

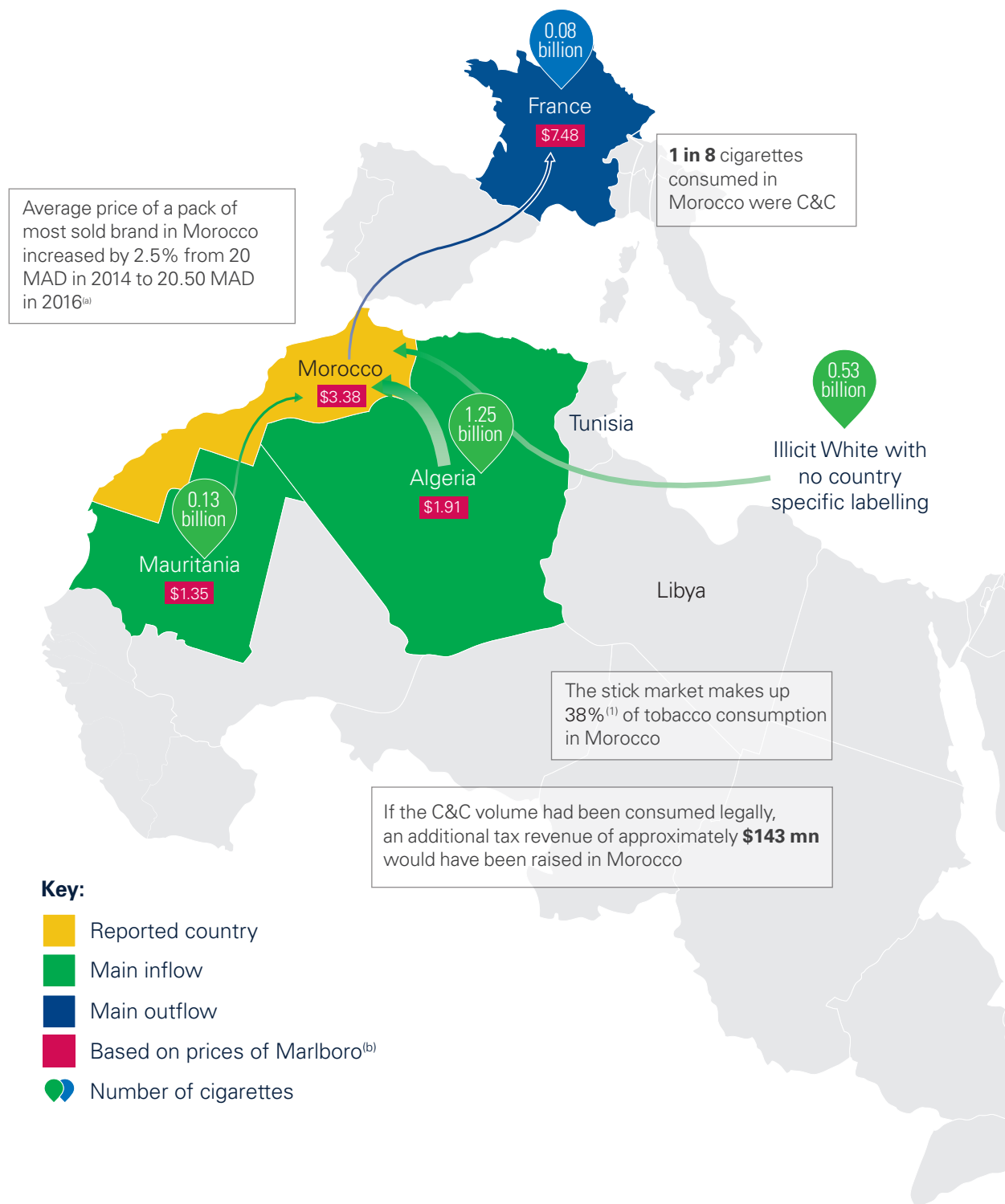


Manufactured cigarette consumption – 2014-2016



Source: ⁽¹⁾ GCTS 2017

Key Inflows/Outflows⁽²⁾



Notes: ^(a) The average price increase of a pack is based on the price of the most popular brand consumed

^(b) Prices for countries within the Maghreb region are based on the price of Marlboro, while the prices for European countries are based on weighted average price for a pack of 20

Source: ⁽¹⁾ GCTS 2017

⁽²⁾ KPMG Maghreb flows model

Manufactured cigarette consumption, inflows and outflows

Manufactured cigarette consumption – 2014-2016⁽¹⁾

Total Morocco Consumption				
Billion cigarettes	2014	2015	2016	2015-16%
Legal domestic sales (LDS)	13.136	12.862	13.859	8%
Outflows	0.152	0.142	0.143	1%
Legal domestic consumption (LDC)	12.983	12.720	13.716	8%
Non-domestic legal (ND(L))	0.085	0.140	0.081	(42%)
Counterfeit and contraband (C&C)	2.178	3.138	1.903	(39%)
Total non-domestic	2.264	3.278	1.984	(39%)
Estimated tax loss (US\$ mn)	182.6	237.3	143.2	(40%)
Total consumption	15.247	15.998	15.700	(2%)

- The high volumes of inflows from Algeria declined by 49% in 2016, against a backdrop of Algerian and Moroccan efforts to reduce illicit cigarette consumption
 - Both the Algerian cigarette price increases of 38% between 2014 and 2016 and enhanced border security are believed to have contributed to the decline in C&C in Morocco, given that the majority of C&C enters Morocco from Algeria⁽²⁾
 - The introduction of lower-priced brands in Morocco in 2015 also aided the decline of C&C as the new brands were sold for a similar price to C&C cigarettes, allowing consumers of C&C to switch to the legal market. This coincided with an 8% increase in legal domestic sales (LDS) in 2016
- Outflows from Morocco can be explained by travel, with the majority flowing to France and Spain

ND Inflows to Morocco– 2014-2016⁽¹⁾

ND Inflows to Morocco				
Billion cigarettes	2014	2015	2016	
Algerian labelled	1.592	2.458	1.255	
Illicit White with no country specific labelling	0.554	0.663	0.526	
Mauritania	0.029	-	0.135	
Duty Free labelled	0.055	0.038	0.059	
Other	0.033	0.119	0.009	
Total inflows	2.264	3.278	1.984	

Outflows from Morocco – 2014-2016⁽¹⁾

Outflows from Morocco				
Billion cigarettes	2014	2015	2016	
France	0.084	0.087	0.077	
Spain	0.000	-	0.022	
Belgium	0.019	0.012	0.014	
Netherlands	0.005	0.004	0.010	
UK	0.002	0.005	0.009	
Other	0.041	0.034	0.011	
Total outflows	0.152	0.142	0.143	

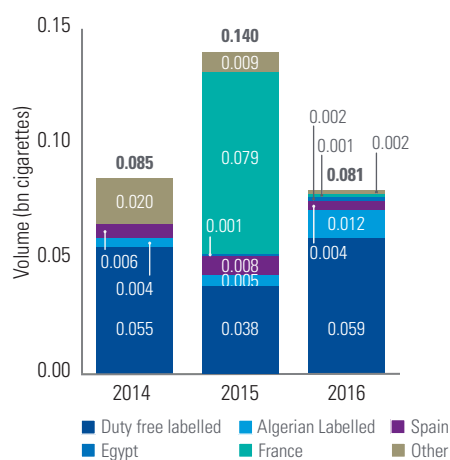
Sources: ⁽¹⁾ KPMG Maghreb flows model

⁽²⁾ PMI pricing data 2014-2015

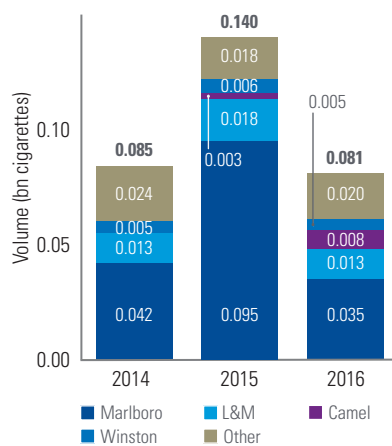
ND(L) and C&C flows

- Contraband from Algeria declined by 49% in 2016 against a backdrop of increased supply chain control efforts by manufacturers and enhanced border security
- Non-domestic legal (ND(L)) flows reflect travel into and out of Morocco, mainly accounted for by Duty Free
- Some Illicit White flows are Duty Free Labelled; these have been included as Illicit Whites with no country specific labelling

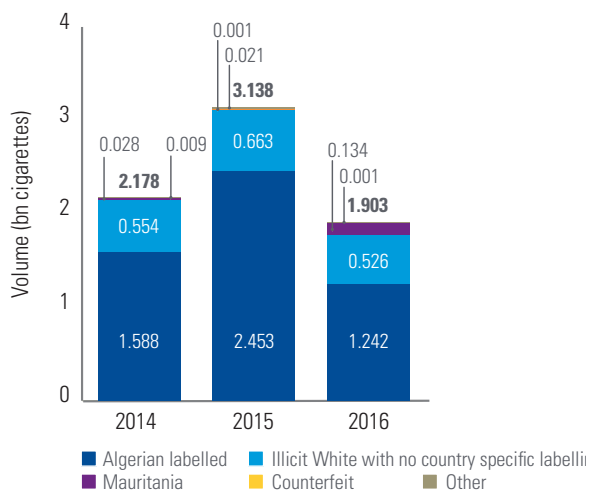
ND(L) by country of origin – 2014-2016⁽¹⁾



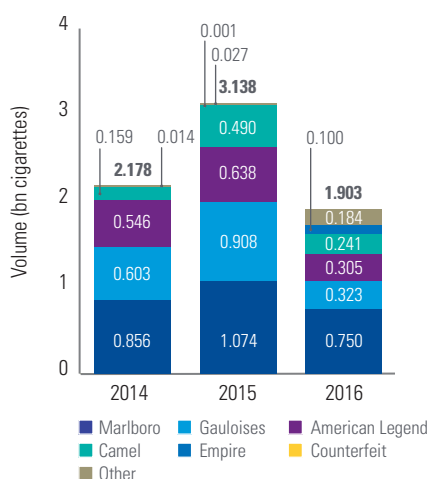
ND(L) by brand– 2014-2016⁽¹⁾



C&C by country of origin – 2014-2016⁽¹⁾

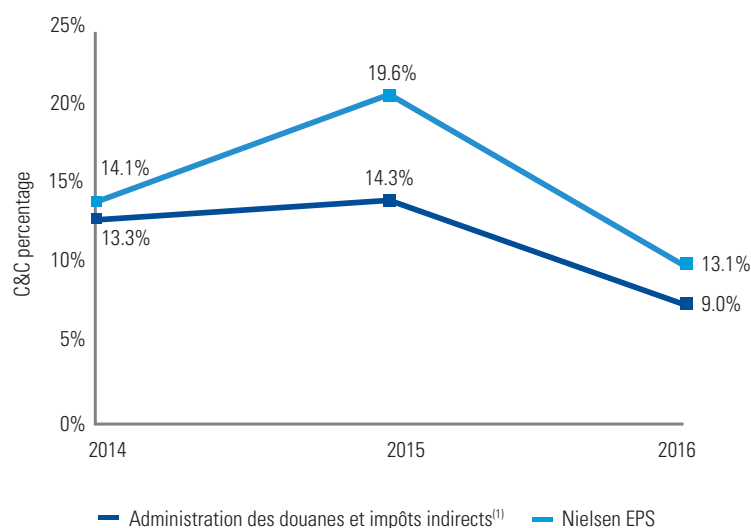


C&C by brand– 2014-2016⁽¹⁾



Source: ⁽¹⁾ KPMG Maghreb flows model

Moroccan Customs (Administration des douanes et impôts indirects) vs Nielsen EPS



The study uses an Empty Pack Survey commissioned by Nielsen. A similar approach is used by Moroccan Customs^(a).

- The Nielsen study surveys 20,000 packs in 25 urban population centres
- The Moroccan Customs survey collects at a different time of year and covers 323 population areas, including 135 rural areas
- Whilst the differing survey methods result in higher overall volumes of non-domestic cigarettes identified in the Nielsen survey, the underlying trends are similar, indicating a reduction in illicit trade in 2016

RUSI Analysis: Illicit Trade in Cigarettes and Other Diverted Products

Morocco - Summary

- Morocco's 1,559 km border with Algeria has been officially closed since 1994, yet significant illicit flows have long entered and exited the country across this and the country's other external boundaries
- The border closure and restricted legal trade with Algeria has created substantial demand for smuggled commodities – particularly for smuggled fuel in Morocco
- Historically, Algerian subsidies have driven illicit flows of other products into Morocco including pharmaceuticals, foodstuffs, scrap metal and alcohol, often using the same routes and crossings
- At various times, goods smuggled out of Morocco have comprised alcohol, food and spare vehicle parts, as well as drugs such as cannabis resin, for which Morocco remains the primary source country worldwide
- Many of these smuggled commodities move across the country's southern border with Mauritania, before reaching other countries across the region
- The Moroccan–Algerian border has been increasingly strongly reinforced – an Algerian trench completed in 2016, as well as a fence on the Moroccan side, have restricted illicit flows of fuel

The chapter 'RUSI Analysis: Illicit Trade in Cigarettes and Other Diverted Products in the Maghreb', can be found on pages 35 to 44, with case studies on the Moroccan border with Algeria on page 42

Note: ^(a) Moroccan Customs report includes results from Western Sahara, whilst the Nielsen data does not

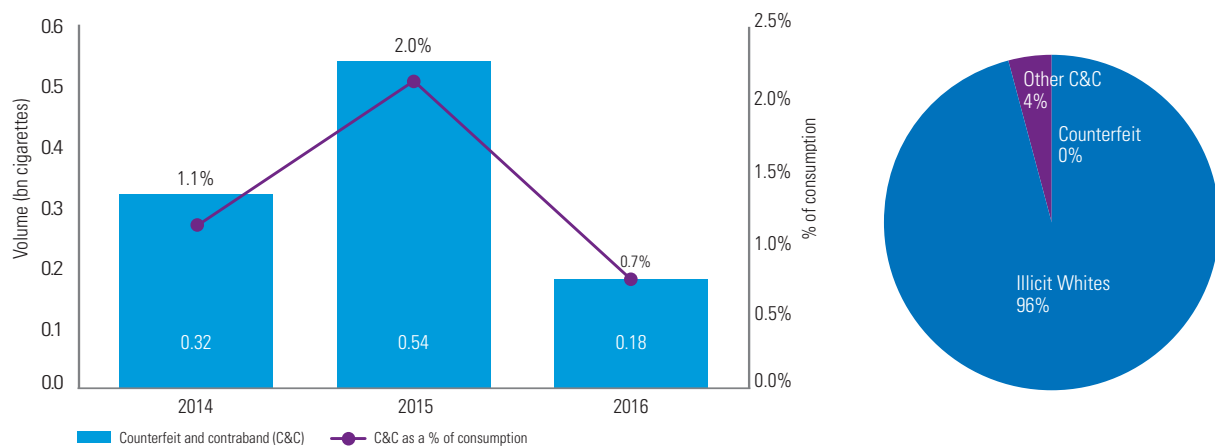
Source: ⁽¹⁾ 'Prevalence des cigarettes de contrebande', Administration des douanes et impôts indirects, 2016

Algeria

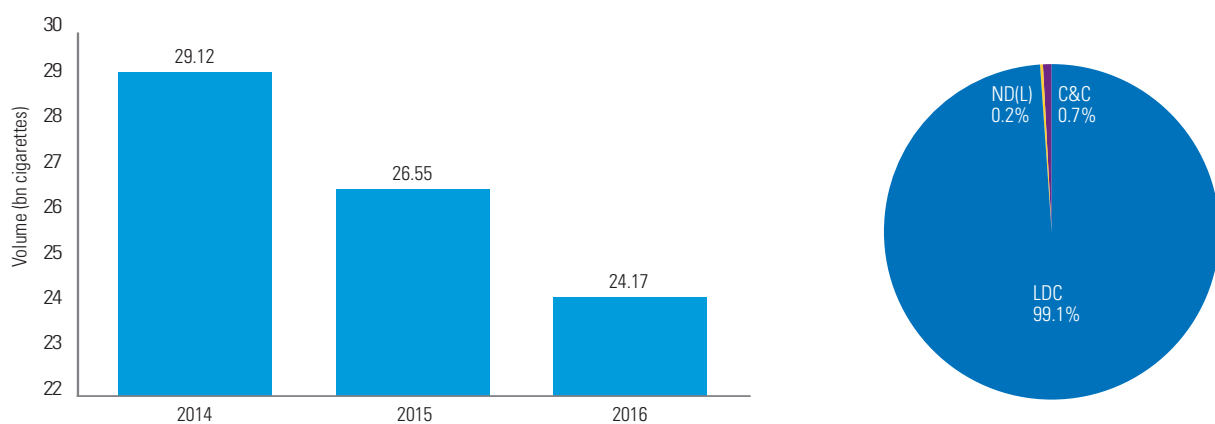
Overview:

- Illicit cigarettes in Algeria accounted for 0.7% of all cigarette consumption in 2016; the lowest level in the study
- Overall cigarette consumption fell by 8% since 2014 against a backdrop of price rises of 38% in this period
- Outflows fell from 6.5 to 5.1 billion in 2016, reflecting a reduction in the price-gap between Algeria and surrounding countries and increased border security

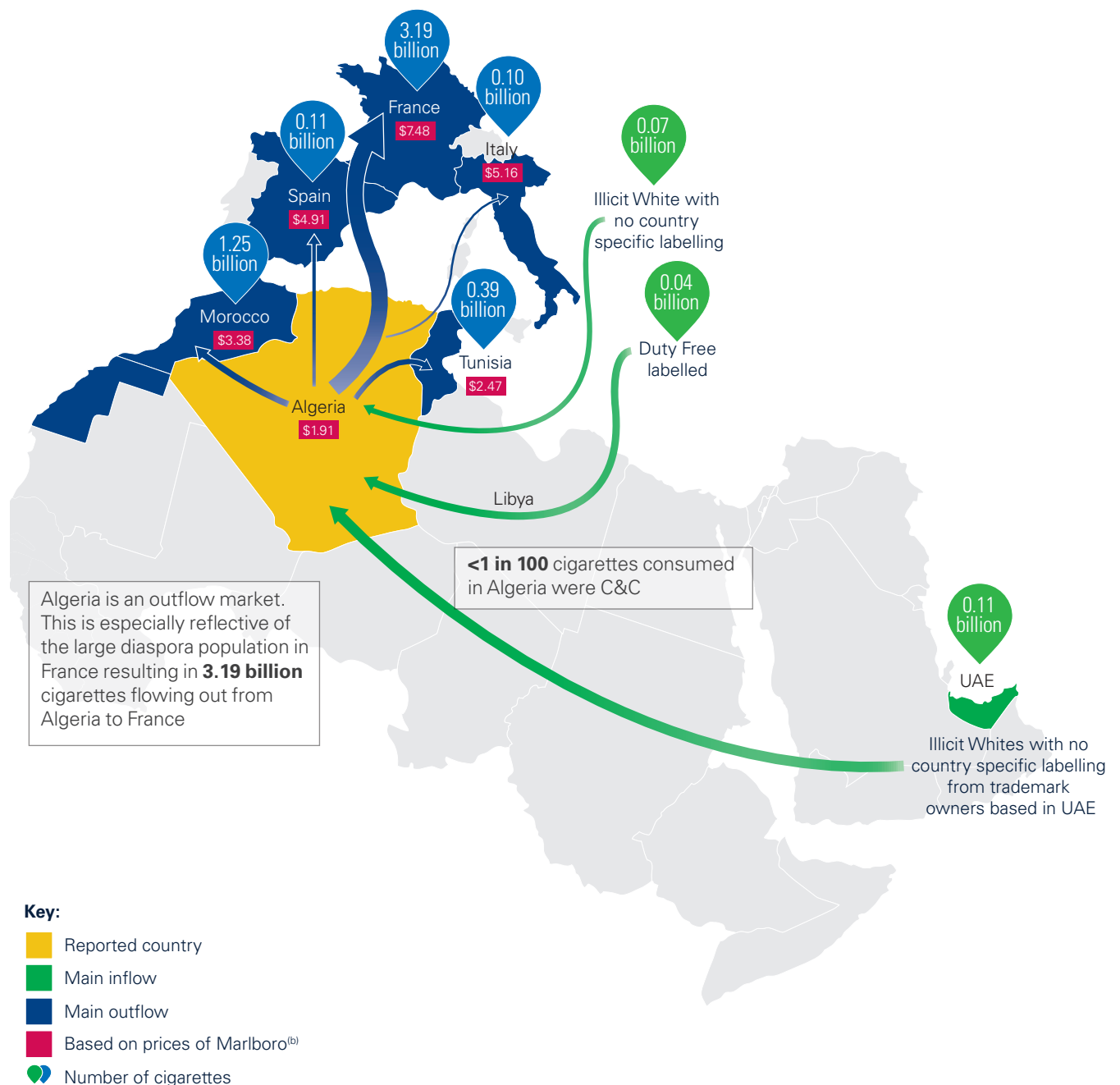
Manufactured Cigarette C&C volumes and share of overall cigarette consumption – 2014-2016



Manufactured cigarette consumption – 2014-2016



Key Inflows/Outflows⁽¹⁾



Note: ^(a) The average price increase of a pack is based on the price of the most popular brand consumed

^(b) Prices for countries within the Maghreb region are based on the price of Marlboro, while the prices for European countries are based on weighted average price for a pack of 20

Source: ⁽¹⁾ KPMG Maghreb flows model

Manufactured cigarette consumption, inflows and outflows

Manufactured cigarette consumption – 2014-2016⁽¹⁾

Total Algeria Consumption				
Billion cigarettes	2014	2015	2016	2015-16%
Legal domestic sales (LDS)	34.032	32.512	29.070	(11%)
Outflows	5.308	6.588	5.123	(22%)
Legal domestic consumption (LDC)	28.724	25.925	23.947	(8%)
Non-domestic legal (ND(L))	0.068	0.082	0.049	(40%)
Counterfeit and contraband (C&C)	0.323	0.540	0.177	(67%)
Total non-domestic	0.391	0.622	0.226	(64%)
Estimated tax loss (US\$ mn)		17.3	5.0	(71%)
Total consumption	29.115	26.547	24.172	(9%)

- Unfavourable economic conditions leading to a currency devaluation in Algeria contributed to cigarettes costing less than other markets which has resulted in high volumes of outflows
 - Outflows declined in 2016 by 22% against a backdrop of increased border sales and efforts made by manufacturers to reduce cigarette smuggling⁽¹⁾
 - Many outflows are thought to pass through the port of Algiers, however, the true scale of smuggling at this port is unknown⁽²⁾
- Non-domestic cigarettes were mainly flows of Illicit Whites with no country specific labelling. These brands have no legal distribution in Algeria
- The remaining inflows were Duty Free labelled, reflecting the comparatively limited travel into and out of Algeria, where consumers have taken advantage of their tax free allowance of lower priced cigarettes

ND Inflows to Algeria– 2014-2016⁽¹⁾

ND Inflows to Algeria				
Billion cigarettes	2014	2015	2016	
Illicit White with no country specific labelling	0.323	0.298	0.177	
Duty Free labelled	0.068	0.063	0.041	
Tunisia	-	0.007	0.003	
Italy	-	-	0.003	
France	-	0.017	0.002	
Other	-	0.237	-	
Total inflows	0.391	0.622	0.226	

Outflows from Algeria – 2014-2016⁽¹⁾

Outflows from Algeria				
Billion cigarettes	2014	2015	2016	
France	2.681	3.223	3.186	
Morocco	1.592	2.458	1.255	
Tunisia	0.776	0.612	0.394	
Spain	-	0.001	0.110	
Italy	0.046	0.090	0.095	
Other	0.213	0.205	0.083	
Total outflows	5.308	6.588	5.123	

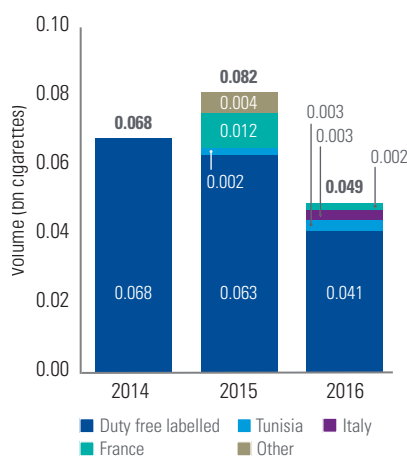
Sources: ⁽¹⁾ KPMG Maghreb flows model

⁽²⁾ RUSI Analysis: Illicit Trade in Cigarettes and Other Diverted Products in the Maghreb

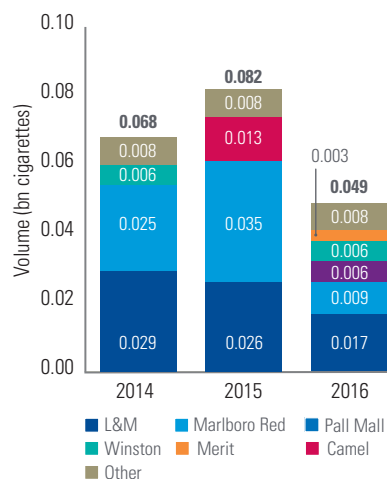
ND(L) and C&C flows

- 96% of illicit cigarettes were Illicit Whites with either no country specific labelling or misleadingly labelled as Duty Free in order to avoid detection
- In 2016 roughly 59% of C&C was Business Royals, trademark-owned by Independent Tobacco, or Mond, trademark-owned by Gulbahar Tobacco International. Both are believed to be manufactured in the UAE
- Non-domestic legal (ND(L)), mainly well known international brands, declined by 40% reflecting lower levels of travel into Algeria in 2016
- Flows of counterfeit cigarettes, the only instances identified in the study, accounted for less than 1% of total C&C
- No cigarettes with Mauritanian labelling were identified in 2016 as law enforcement activity increased

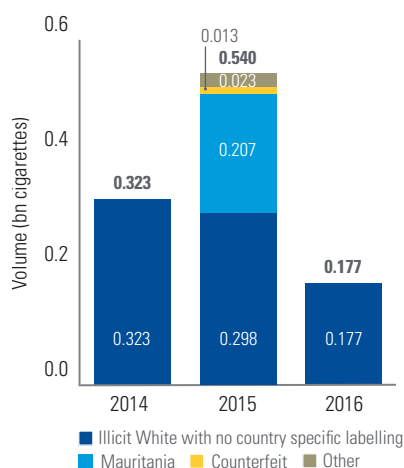
ND(L) by country of origin – 2014-2016⁽¹⁾



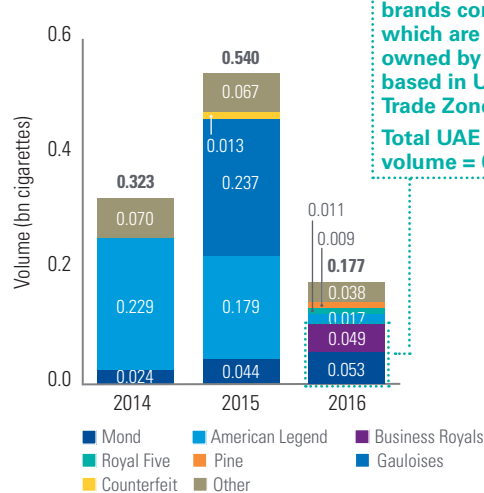
ND(L) by brand– 2014-2016⁽¹⁾



C&C by country of origin – 2014-2016⁽¹⁾



C&C by brand– 2014-2016⁽¹⁾



These are the main brands consumed which are trademark owned by companies based in UAE Free Trade Zones.
Total UAE based brand volume = 0.11 bn^(a)

Note: ^(a) Total UAE based brand volume includes brands grouped in Other

Source: ⁽¹⁾ KPMG Maghreb flows model

RUSI Analysis: Illicit Trade in Cigarettes and Other Diverted Products in the Maghreb

Algeria - Summary

- Algeria's borders with the majority of its neighbours remain officially closed. Despite this, a wide range of commodities is smuggled in and out of the country in varying volumes
- Commodities smuggled into Algeria include a range of foodstuffs, alcohol and spare vehicle parts, often moving alongside illegal drugs such as cannabis resin from Morocco and cocaine trafficked via West Africa on to Europe
- Goods smuggled out of Algeria include subsidised fuel, which is smuggled on to neighbouring countries, including those that lack a domestic supply
- A range of other subsidised goods make up illicit outflows; food smuggling to Mali and Niger is facilitated by a transport subsidy system, whereby those moving food from the north to the south of Algeria have their fuel costs reimbursed
- Recent crackdowns on illicit trade have focused on fuel smuggling, against a backdrop of dwindling oil revenues and the broader economic crisis facing the country
- The recent crackdown on fuel smuggling has affected the illicit trade in cigarettes and other diverted products, as border security has been enhanced

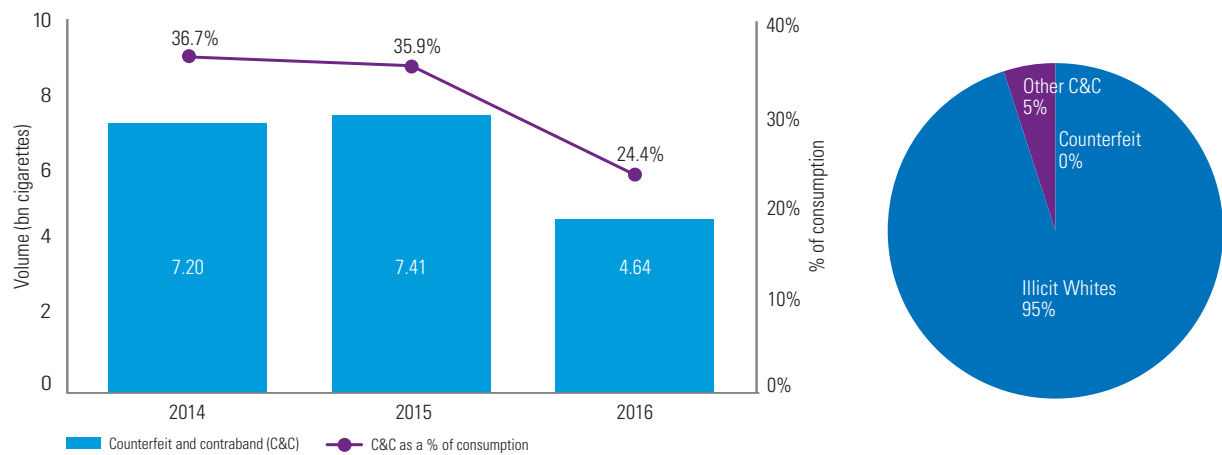
The chapter 'RUSI Analysis: Illicit Trade in Cigarettes and Other Diverted Products in the Maghreb' can be found on pages 35 to 44, with case studies of the Algerian borders with Mali, Morocco and Tunisia on pages 40 to 44

Tunisia

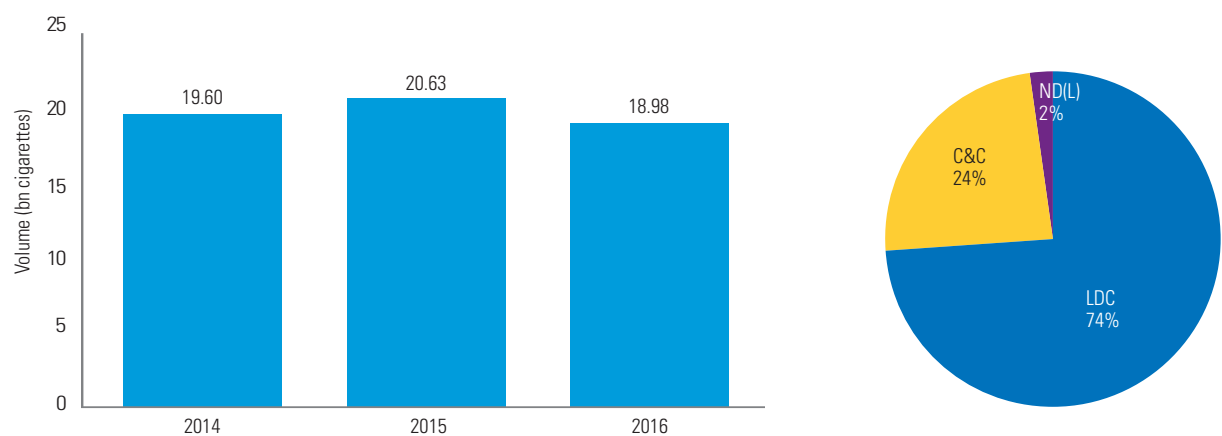
Overview:

- C&C accounted for 24% of all cigarette consumption in 2016, the majority of which were Illicit Whites
- Tunisia had one of the highest incidences of C&C as a percentage of total consumption in the region, however, C&C volumes declined by 37% in 2016 against a backdrop of enhanced border security
- Overall cigarette consumption fell by 8% from 2015 to 2016 reflecting price rises of 13%

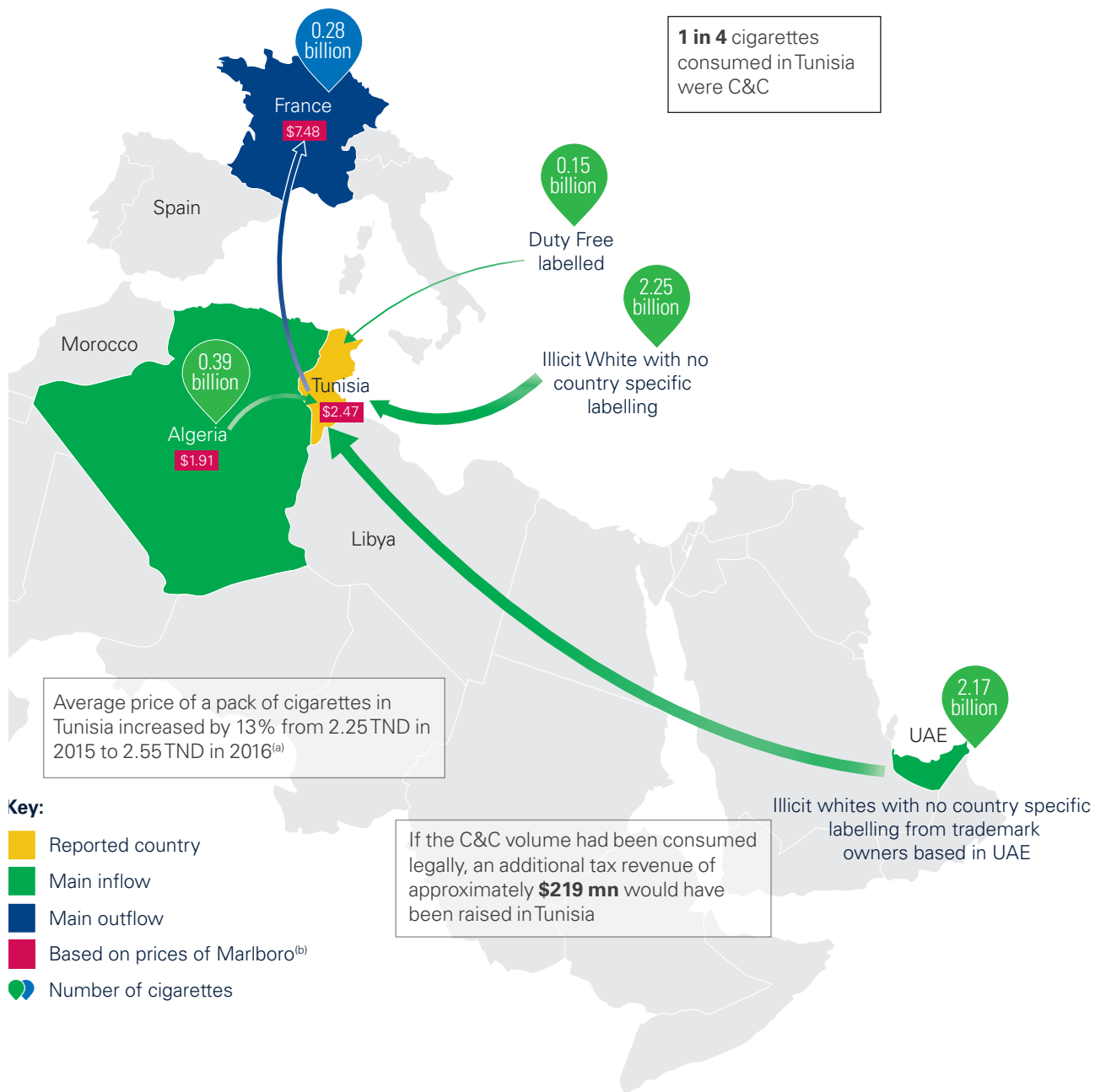
Manufactured Cigarette C&C volumes and share of overall cigarette consumption – 2014-2016



Manufactured cigarette consumption – 2014-2016



Key Inflows/Outflows⁽¹⁾



Notes: ^(a) The average price increase of a pack is based on the price of the most popular brand consumed

^(b) Prices for countries within the Maghreb region are based on the price of Marlboro, while the prices for European countries are based on weighted average price for a pack of 20

Source: ⁽¹⁾ KPMG Maghreb flows model

Manufactured cigarette consumption, inflows and outflows

Manufactured cigarette consumption – 2014-2016⁽¹⁾

Total Tunisia Consumption				
Billion cigarettes	2014	2015	2016	2015-16%
Legal domestic sales (LDS)	12.132	13.159	14.296	9%
Outflows	0.163	0.206	0.333	61%
Legal domestic consumption (LDC)	11.969	12.953	13.963	8%
Non-domestic legal (ND(L))	0.430	0.275	0.377	37%
Counterfeit and contraband (C&C)	7.203	7.407	4.636	(37%)
Total non-domestic	7.633	7.681	5.013	(35%)
Estimated tax loss (US\$ mn)	396.7	391.6	219.3	(44%)
Total consumption	19.602	20.634	18.977	(8%)

- Legal domestic sales increased by 9% from 2015 to 2016, a rise attributable to the fall in C&C and attractiveness of cheaper legal cigarettes
- Total inflows fell by 35% from 2015 to 2016. This can be attributed to active policy to reduce the illicit tobacco trade in Tunisia with the use of tighter border control and increased truck inspections
- Inflows of Algerian labelled cigarettes, reflecting its position as the lowest priced market in the region, fell by 36% in 2016. This may be attributable to high levels of Algerian border security alongside Algerian price increases, reducing the price gap between an Algerian pack and Tunisian pack by 45%

ND Inflows to Tunisia – 2014-2016⁽¹⁾

ND Inflows to Tunisia			
Billion cigarettes	2014	2015	2016
Illicit White with no country specific labelling	6.492	6.763	4.425
Algerian labelled	0.776	0.612	0.394
Duty Free labelled	0.214	0.267	0.152
Iraq	0.090	0.008	0.009
Saudi Arabia	0.000	0.008	0.008
Other	0.061	0.024	0.026
Total Inflows	7.633	7.681	5.013

Outflows from Tunisia – 2014-2016⁽¹⁾

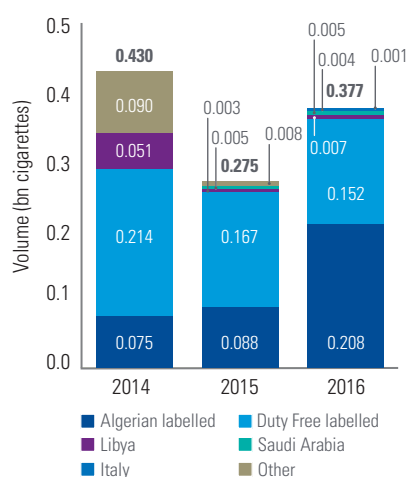
Outflows from Tunisia			
Billion cigarettes	2014	2015	2016
France	0.097	0.151	0.285
Italy	0.041	0.031	0.030
UK	0.001	0.000	0.004
Germany	0.002	0.002	0.003
Netherlands	0.001	0.003	0.003
Other	0.021	0.019	0.007
Total outflows	0.163	0.206	0.333

Source: ⁽¹⁾ KPMG Maghreb flows model

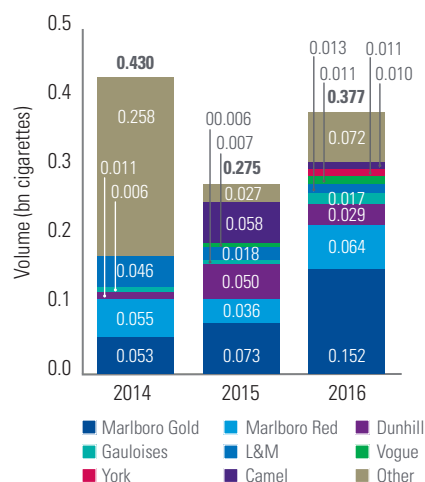
ND(L) and C&C flows

- C&C brands identified in Tunisia reflected those in Libya, where 93% of consumption was C&C, indicating that some of the cigarettes destined for Libya may have crossed into Tunisia
- The largest flows of C&C were Illicit Whites with no country specific labelling, with over 55% of this volume being branded as Business Royals, trademark-owned by Independent Tobacco, or Pine, trademark-owned by KT & G
- Non-domestic legal (ND(L)) flows reflect travel into and out of Tunisia, and are mainly accounted for by Algerian and Duty Free cigarettes
- ND(L) volumes consumed rose by 37% between 2015 and 2016 with the biggest rise seen from Algeria

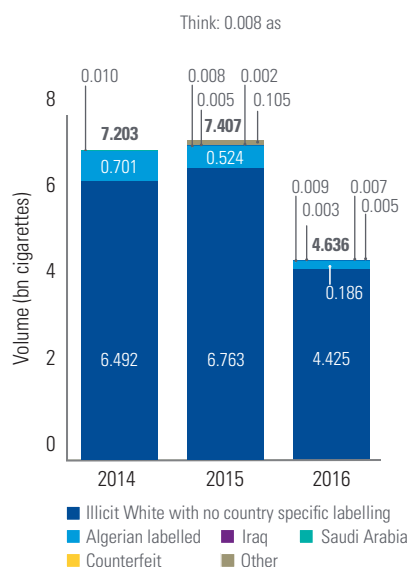
ND(L) by country of origin – 2014-2016⁽¹⁾



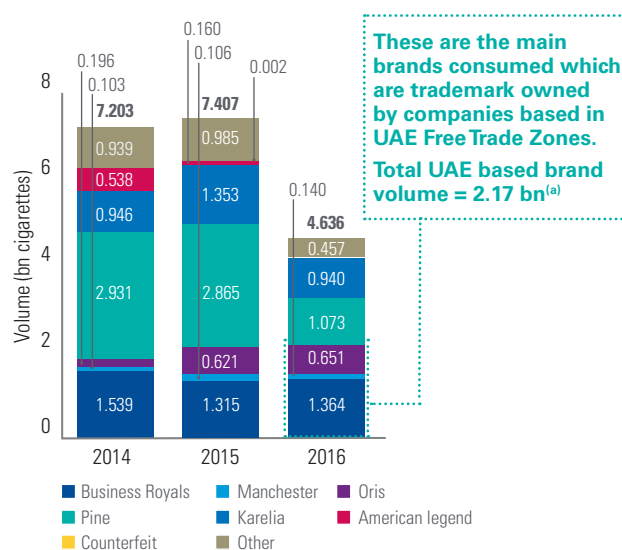
ND(L) by brand – 2014-2016⁽¹⁾



C&C by country of origin – 2014-2016⁽¹⁾



C&C by brand – 2014-2016⁽¹⁾



Note: ^(a) Total UAE based brand volume includes brands grouped in Other

Source: ⁽¹⁾ KPMG Maghreb flows model

RUSI Analysis: Illicit Trade in Cigarettes and Other Diverted Products

Tunisia - Summary

- Since the fall of former Tunisian President Ben Ali in 2011, illicit trade appears to have increased in scale as the smuggling market has opened up to individuals and groups beyond those privileged under Ali
- One of the most lucrative forms of illicit trade is that in subsidised fuel from Algeria and Libya, which is smuggled into Tunisia for onward sale across the country
- Cigarettes and spirits are smuggled into Tunisia from Algeria; these are often sold on to hotels on the Tunisian coast, or re-exported to Libya
- Commodities smuggled out of Tunisia include such varied goods as coral, subsidised foodstuffs, livestock, construction materials and clothes made in coastal Tunisian factories
- In recent years, the government has sought to reinforce border security; it has completed the first part of a planned 200km barrier along its border with Libya, which will likely impact on smuggling activity
- Since 2011, violent confrontations between newly armed smuggling groups and border security services have increased – as have those between particular smuggling groups and their competitors

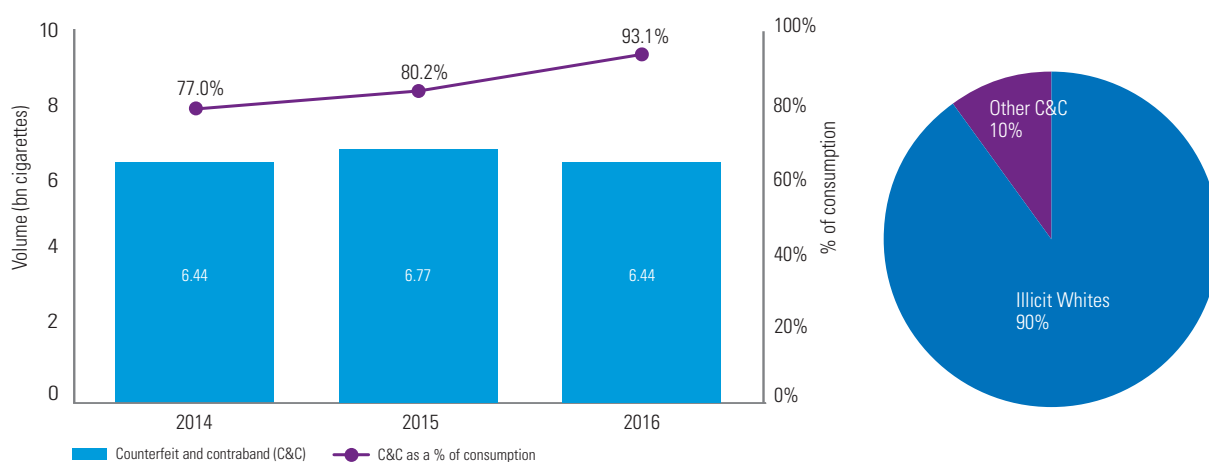
The chapter 'RUSI Analysis: Illicit Trade in Cigarettes and Other Diverted Products in the Maghreb' can be found on pages 35 to 44, with case studies of the Tunisian borders with Libya and Algeria on pages 38 to 39, and 43 to 44

Libya

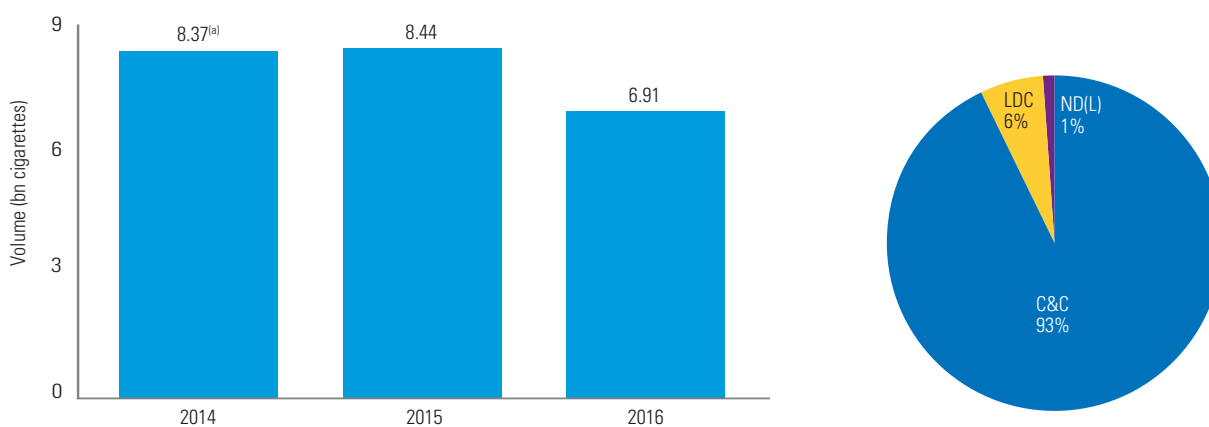
Overview:

- C&C accounted for 93% of all consumption in 2016, equating to 6.4 billion cigarettes and indicating a highly developed and largely socially acceptable black market⁽¹⁾
- The incentive for additional parallel imports was exacerbated by credit restrictions which may have reduced domestic production
- 90% of C&C was Illicit Whites brand flows, while Illicit White brands from trademark-owners based in Free Trade Zones in the UAE accounted for 80% of C&C

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



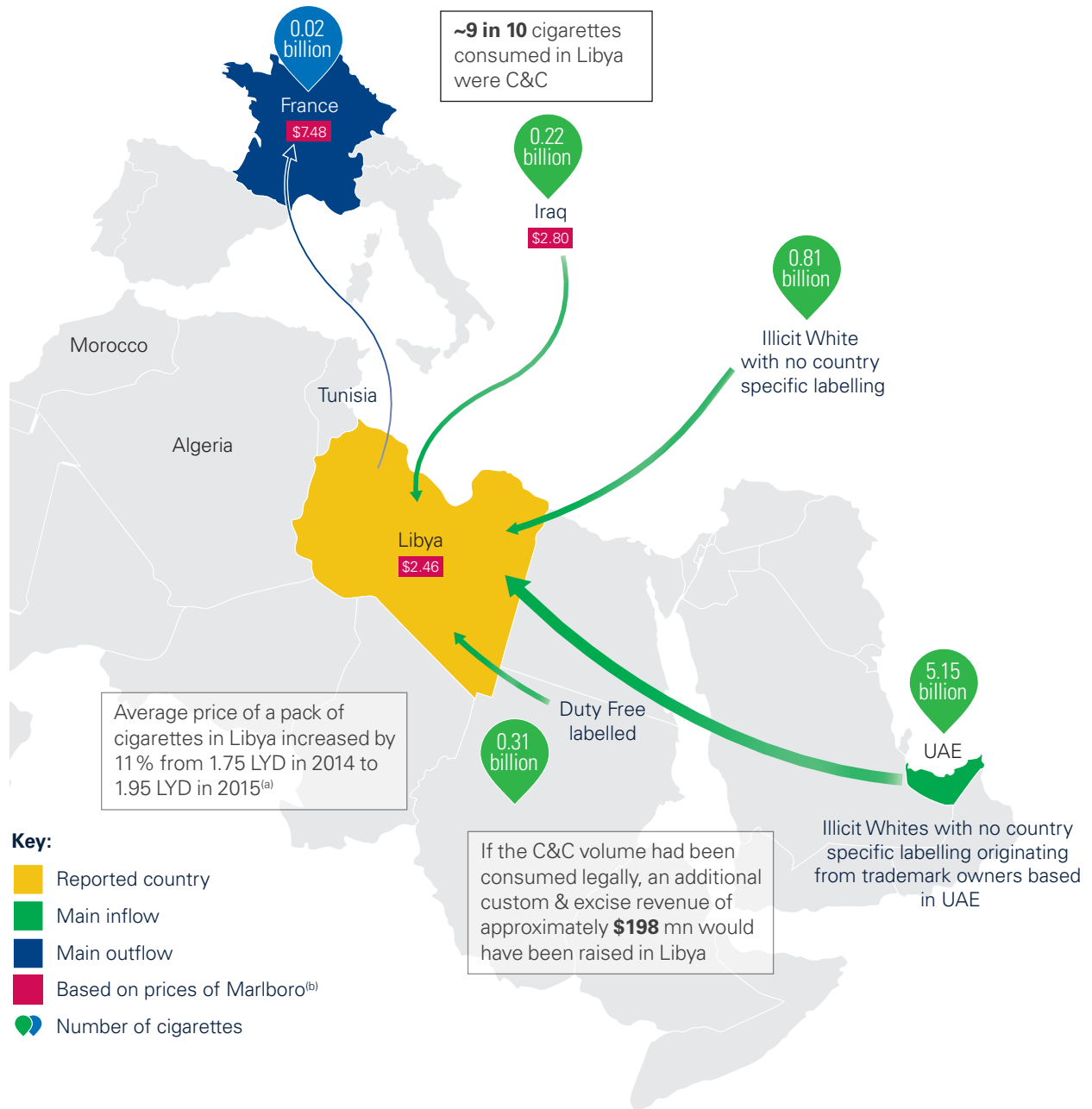
Manufactured cigarette consumption – 2014-2016



Note: ^(a) The difference in the adult population of Libya from 2014 to 2015 was used in order to estimate the consumption level of 2014 based on the total consumption in 2015. In 2016 we have estimated the market share of brands from the EPS to determine the total legal domestic sales in Libya as the LDS data was not sufficient

Source: ⁽¹⁾ RUSI Analysis: Illicit Trade in Cigarettes and Other Diverted Products in the Maghreb

Key Inflows/Outflows⁽¹⁾



Note: ^(a) The average price increase of a pack is based on PMI pricing data 2014-2015

^(b) Prices for countries within the Maghreb region are based on the price of Marlboro, while the prices for European countries are based on weighted average price for a pack of 20

Source: ⁽¹⁾ KPMG Maghreb flows model

Manufactured cigarette consumption, inflows and outflows

Manufactured cigarette consumption – 2014-2016⁽¹⁾

Total Libya Consumption				
Billion cigarettes	2014	2015	2016	2015-16%
Legal domestic sales (LDS)	2.000	1.522	0.450	(70%)
Outflows	0.072	0.021	0.032	55%
Legal domestic consumption (LDC)	1.928 ^(a)	1.501	0.418	(72%)
Non-domestic legal (ND(L))	-	0.174	0.061	(65%)
Counterfeit and contraband (C&C)	6.444	6.765	6.436	(5%)
Total non-domestic	6.444	6.940	6.497	(6%)
Estimated tax loss (US\$ mn)	80.1	181.8	197.9	9%
Total consumption	8.372	8.440	6.915	(18%)

- Legal domestic sales declined as a result of tighter credit controls, reducing the amount of production possible in Libya, due to tighter restrictions on the imports of raw materials, including tobacco⁽²⁾
- The majority of cigarette consumption is accounted for by inflows, with reductions in 2016 against a backdrop of economic decline and further geopolitical uncertainty

ND Inflows to Libya– 2014-2016⁽¹⁾

ND Inflows to Libya		
Billion cigarettes	2015	2016
Illicit White with no country specific labelling	5.082	5.961
Duty Free labelled	1.334	0.312
Iraq	0.498	0.225
Other	0.025	0.000
Total Inflows	6.940	6.497

Outflows from Libya – 2014-2016⁽¹⁾

Outflows from Libya			
Billion cigarettes	2014	2015	2016
France	-	-	0.021
Tunisia	0.051	0.005	0.007
Switzerland	-	0.002	0.003
Netherlands	-	0.001	0.002
Other	0.021	0.012	-
Total Outflows	0.072	0.021	0.032

Note: ^(a) The difference in the adult population of Libya from 2014 to 2015 was used in order to estimate the consumption level of 2014 based on the total consumption in 2015. In 2016 we have estimated the market share of brands from the EPS to determine the total legal domestic sales in Libya as the LDS data was not sufficient.

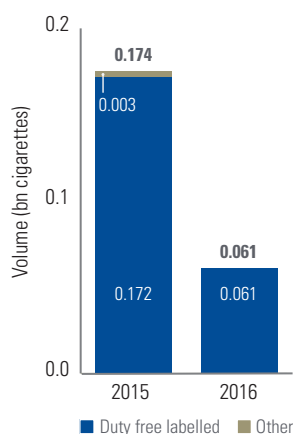
Source: ⁽¹⁾ KPMG Maghreb flows model

⁽²⁾ Law 96 (2015), Libyan Central Bank

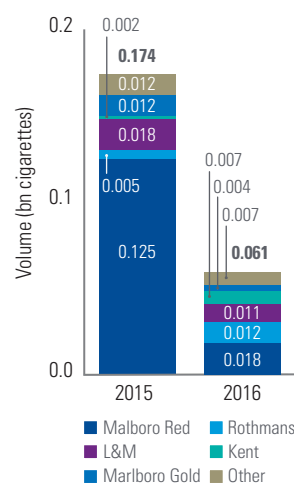
ND(L) and C&C flows

- Non-domestic legal (ND(L)) flows reflect the comparatively limited travel into and out of Libya, mainly accounted for by Duty Free.
- 90% of the brands identified as C&C were Illicit Whites, meaning that these brands have no legal distribution in Libya
- The largest Illicit White brand was Business Royals, trademark-owned by Independent Tobacco, and Oris, trademark-owned by Oriental General Trading Inc.
- Many of the Illicit White brands identified in Libya are widely recognised as Illicit White brands throughout the world and are thought to originate from Free Trade Zones in the United Arab Emirates
- The unstable political situation in Libya, post revolution, has played a significant role in reducing law enforcement in relation to the illicit cigarette trade in the region

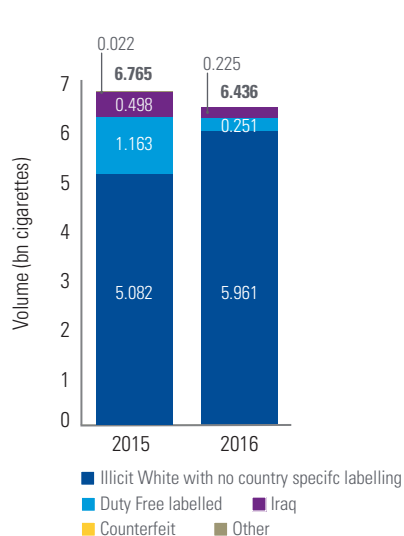
ND(L) by country of origin – 2014-2016⁽¹⁾



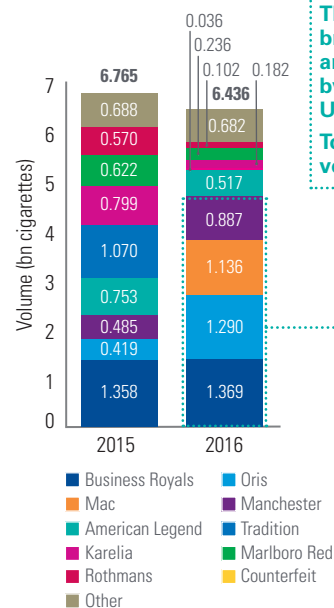
ND(L) by brand – 2014-2016⁽¹⁾



C&C by country of origin – 2014-2016⁽¹⁾



C&C by brand – 2014-2016⁽¹⁾



These are the main brands consumed which are trademark owned by companies based in UAE Free Trade Zones. Total UAE based brand volume = 5.15 bn^(a)

Note: ^(a) Total UAE based brand volume includes brands grouped in Other

Source: ⁽¹⁾ KPMG Maghreb flows model













RUSI Analysis: Illicit Trade in Cigarettes and Other Diverted Products

Libya - Summary

- Lack of effective state control and security capacity has made Libya a hub for all forms of illicit trade activity
- Commodities smuggled into Libya include subsidised food, as well as cheap fertilisers, ceramics and livestock, amongst others – for which inflation and escalating commodity prices continue to drive demand
- There is an active illicit trade in pharmaceuticals in Libya sustained by demand for smuggled prescription medicines such as the opioid painkiller Tramadol
- Amongst others, goods smuggled out of Libya include subsidised fuel: this is smuggled across borders and out of Libyan ports to Italy, Malta and Turkey, for consumption and onward sale
- Recent crackdowns on fuel smuggling have seen an increase in illicit trade-related violence at certain border crossings
- Illicit trade represents the main source of income for many Libyans in border regions, with concerted attempts to disrupt this activity likely to lead to heightened social tension

The chapter 'RUSI Analysis: Illicit Trade in Cigarettes and Other Diverted Products in the Maghreb' can be found on pages 35 to 44, with case studies of the Libyan borders with Tunisia and Niger on pages 38 to 39

RUSI Analysis: Illicit Trade in Cigarettes and Other Diverted Products

Commodities	Incentives	Enabling Factors
 Cigarettes  Alcohol  Pharmaceuticals  Fuel  Foodstuffs  Vehicles  Household appliances  Construction equipment  Chemical fertilisers  Raw materials  Ceramics  Livestock	<ul style="list-style-type: none"> • Government subsidies on a range of commodities, which enhance price differentials and thus the profits available from smuggling • Differences in product availability, which increase demand and thus the profits to be made from smuggling • The ability to exploit government policies, such as those in Algeria, which encourage the movement of foodstuffs to the south of the country • Food insecurity in border regions, which creates substantial demand for smuggled food products • The low-risk, high-reward nature of illicit trade, including the lack of prioritisation by authorities relative to threats perceived to be more immediate 	<ul style="list-style-type: none"> • Lack of state control, which allows criminal actors to operate with impunity, especially in Libya • High levels of social acceptability of illicit trade, whereby smuggling in many goods is not viewed as a crime by most citizens • Corruption at key borders, which facilitates smuggling activity • Unemployment in many border communities, making illicit trade one of the only sources of income • Limited consequences of involvement, including limited chances of punishment or prosecution

Introduction

The Maghreb region has been a **pipeline for the smuggling of many types of goods** for hundreds of years. Today, a range of commodities is smuggled within and across a region defined by vast, sparsely populated spaces, and sealed-off borders. Cigarettes, as well as subsidised commodities such as fuel and food, make up a large part of this smuggling activity, drawing on variations in pricing and availability. Illicit trade in such products is booming just as legal cross-border trade is stifled by red tape and closed borders.

Understood here as the unlawful production, transportation or sale of otherwise legal commodities, illicit trade in the Maghreb and Libya has evolved considerably in the past decade⁽¹⁾. Most notably, successive geopolitical crises following **the turbulent transitions of the Arab Spring** have altered political, economic and security dynamics, opening up existing routes and markets. Groups involved in illicit trade have been quick to exploit these upheavals. They have done so by altering their routes and activities as profit-making opportunities and gaps in the market dictate⁽²⁾.

It must be noted that **the true scale of illicit trade in the Maghreb is unknown**. This owes to both difficulties conducting research in the region and the complexity and diversity of the issue: illicit trade covers a host of hidden activities, from contraband smuggling to counterfeiting and tax evasion. In a region facing

myriad security threats, illicit trade is rarely prioritised by law enforcement; even when prioritised, authorities may lack the resources or capacity to investigate this activity thoroughly. The result is a limited intelligence picture on the specific products, groups, routes and methods involved.

This section explores these topics, drawing on a review of existing literature, and interviews with experts from industry, academia and law enforcement in the region. It aims to **provide insights into the nature of illicit trade in the Maghreb**, and the routes and methods used in smuggling activities. It does so, first, by considering the commodities involved, the incentives and enabling factors fuelling their movement, and the outlook for efforts to disrupt them. The rest of the chapter comprises a closer look at illicit trade across specific borders, with a focus on Libya and Algeria.

What is Smuggled and Why?

Illicit economies across the Maghreb rest on **interconnected markets of smuggled legitimate goods and illegal goods**. Illicit trade, understood as the unlawful production, transportation or sale of otherwise legal commodities, has historically comprised the majority of illicit cross-border activity in the region. This situation persists today: most illicit cross-border activity in the Maghreb continues to involve legal commodities⁽³⁾. Yet this plays out in a region increasingly vulnerable to

Sources: ⁽¹⁾This analysis focuses on illicit trade as described in this sentence, and does not consider in detail trafficking in illegal goods such as drugs and arms. As such, it should be noted that this analysis provides only a partial picture of the wider range of criminality playing out across the region. ⁽²⁾The Global Initiative Against Transnational Organized Crime, 'Libya: A Growing Hub for Criminal Economies and Terrorist Financing in the Trans-Sahara', Policy Brief, May 2015. ⁽³⁾Querine Hanlon and Matthew M Herbert, 'Border Security Challenges in the Grand Maghreb', US Institute of Peace report, Peaceworks No. 109, 2015, p. 8.

flows of illegal goods such as drugs and arms, as well as the operation of terrorist organisations.

In this context, the **significance of illicit trade is often underestimated**. While smuggled goods may sit lower in a hierarchy of perceived security importance⁽⁴⁾, their movement is highly significant in terms of the range of products involved, and their ability to bore holes into border security efforts. The bulk of these products has historically comprised cigarettes, food and fuel, but in recent years a wider range of smuggled goods has transited the region's borders. It is worth examining some of the main commodities involved before reviewing the factors driving their movement.

Commodities

Cigarettes, first, have long been smuggled across the Maghreb. Lightweight and easy to transport yet retaining consistent consumer demand, in recent decades they have been the commodity of choice for many involved in illicit trade. KPMG data shows that around **66 billion illicit cigarettes were consumed in the Maghreb** in 2016, highlighting the region's role as a key destination market, particularly for Illicit Whites. Yet the Maghreb also plays a crucial source and transit role: Project SUN cited Algeria as the source of over 31 % of illicit cigarettes consumed in France in 2016, equivalent to 2.78 billion illicit cigarettes⁽⁵⁾.

Alongside cigarettes, there is a substantial black market across the Maghreb for other **contraband and counterfeit commodities, including illicit alcohol**.

In countries such as Tunisia, consumption is legal, and alcohol easy to obtain and transport⁽⁶⁾. By contrast, in countries such as Libya, alcohol must either be smuggled across borders or brewed illegally domestically⁽⁷⁾. Substandard alcohol is also smuggled across the region, with potentially highly damaging impacts on public health.

The region also hosts an active **black market for pharmaceuticals**. In recent years, demand for a range of prescription medicines has grown, with smuggling by criminal groups expanding to meet it⁽⁸⁾. This growth in pharmaceutical smuggling comes with rising risks to consumers⁽⁹⁾: the uncontrolled availability of such black market medicines can have potentially serious impacts on public health.

Other contraband transiting the region includes second-hand cars, which can be smuggled into Libya, for example, in the absence of effective customs and border controls. These vehicles are destined for sale both domestically and elsewhere on the continent⁽¹⁰⁾. The progressive increase in goods avoiding state controls in this way has seen

everything from **raw materials to livestock, fertilisers, ceramics, household and electrical appliances** smuggled into and between countries in the region, and on to countries further afield⁽¹¹⁾.

Of particular note is illicit trade in goods subsidised by national governments in the region. Algeria, Tunisia, Morocco and Libya each subsidise a range of **staple products from bread to sugar, petrol and construction materials**⁽¹²⁾, with smuggling in these commodities longstanding. Smuggling patterns are informed by context and the price differentials created across borders. In addition, levels of domestic availability – for particular foodstuffs and fuel, for example – dictate further the kinds of goods smuggled, with specific products moved across borders as demand and consumer tastes dictate.

What are Price Subsidies?

As noted by the International Monetary Fund, a consumer subsidy arises 'when government intervention reduces the price of a product below the market price that would otherwise have prevailed'⁽¹³⁾. Given a lack of institutionalised social safety nets, they are applied to staple products to support real incomes and fight poverty, and to shield citizens from fluctuations in commodity prices and exchange rates⁽¹⁴⁾. They have been adjusted at various times to avoid social unrest – most recently, in some locations, in efforts to delay the upheavals of the Arab Spring. Yet generalised subsidies impose huge costs on national governments, and are widely held to disproportionately benefit the better off, who consume larger volumes of subsidised goods. Though a process of subsidy reform has been underway in a number of states in recent years, a substantial range remains in place on staple products in the Maghreb.

Incentives and Enabling Factors

Regional **variation in commodity prices and product availability** comprises one of the main incentives for smugglers dealing in these goods. These factors allow them to buy goods where they are cheaper, cross borders, and then sell below market price in areas where they cost more⁽¹⁵⁾. State subsidies, notably, contribute to sustaining artificially large price differentials between neighbouring countries, thus increasing the profits to be made. In many cases, the potential to sell subsidised commodities in higher-priced markets creates substantial financial incentives for new entrants to this form of activity.

Sources: ⁽⁴⁾ Mark Shaw and Fiona Mangan, 'Illicit Trafficking and Libya's Transition: Profits and Losses', United States Institute for Peace, 2014. ⁽⁵⁾ KPMG, 'Project SUN: A Study of the Illicit Cigarette Market in the European Union, Norway and Switzerland. 2016 Results', July 2017. ⁽⁶⁾ Shaw and Mangan, 'Illicit Trafficking and Libya's Transition: Profits and Losses'. ⁽⁷⁾ Ibid. ⁽⁸⁾ Libya Observer, '45 Million Tramadol Pills Seized In Tobruk Port', 28 February 2016. ⁽⁹⁾ Shaw and Mangan, 'Illicit Trafficking and Libya's Transition: Profits and Losses'. ⁽¹⁰⁾ Ibid. ⁽¹¹⁾ International Crisis Group (ICG), 'Tunisia's Borders: Jihadism and Contraband', Middle East/North Africa Report No. 148, 28 November 2013. ⁽¹²⁾ Subsidies in a number of these states have been reformed in recent years, see Borzou Daragahi, 'Developing Economies: Taking a Load Off', Financial Times, 11 February 2015. ⁽¹³⁾ Carlo Sdrulevich et al., 'Subsidy Reform in the Middle East and North Africa: Recent Progress and Challenges Ahead', IMF, 2014. ⁽¹⁴⁾ Carlo Sdrulevich et al., 'Subsidy Reform in the Middle East and North Africa: A Summary of Recent Progress and Challenges Ahead', IMF, October 2014. ⁽¹⁵⁾ Hanlon and Herbert, 'Border Security Challenges in the Grand Maghreb'.

A further incentive lies in the limited consequences of involvement in illicit trade. Across the region, the risks associated with commodity smuggling remain low relative to trafficking in illegal goods. This owes to the context in which such activity plays out: as well as smuggled commodities, the Maghreb is **criss-crossed by flows of drugs, arms and people**, which overlap, in turn, with the operations of terrorist actors, from Al-Qa'ida in the Islamic Maghreb (AQIM) to Al-Murabitoun. In this context, illicit trade is assigned a low priority, with limited risk of prosecution for smuggling.

Indeed, at some borders, **authorities regularly turn a blind eye** to smuggling in commodities like fuel and food. In some cases, illicit trade appears to have been unofficially decriminalised, with border agents permitting the transit of commodities for a small 'fee'. Alongside corruption, such official tolerance may be influenced by the imperative to preserve social peace in affected regions, as well as a degree of sympathy with the smugglers. These last two points reflect a further enabling factor – namely, a high level of social acceptability of illicit trade across the region.

Testament to this is the fact that commodity smuggling is rarely perceived as a form of criminal activity. Tellingly, many citizens in the region refer to the **smuggling of diverted products as 'innocent smuggling'**⁽¹⁶⁾. Cigarettes, fuel, foodstuffs, electrical equipment, clothing and construction materials are all included in this 'innocent' category, as are numerous others. As such, in effect, illicit trade largely exists in a 'grey area' of the law; in many cases little distinction is made between legal activity, smuggling and 'informal trade'.

The social acceptability of illicit trade links to a further set of incentives for involvement. These include worsening economic conditions and high levels of unemployment in many parts of the region. In this economic climate, **illicit trade exists as the only viable source of income** for numerous border communities. This situation indicates that action to disrupt illicit trade at borders is unlikely to be successful unless sustainable alternative employment is made available.

Yet however accepted is the trade in border areas, the sheer volume of smuggled goods is known to establish pathways for other forms of trafficking. This fact is informed by the region's particular landscape: there are only a limited number of potential routes across the Sahara, with roads converging at bottlenecks, meaning that all goods must use the same crossings. Illicit trade can also intersect with the operations of terrorist groups: from the 1990s, Mokhtar

Belmokhtar – frequently described as the former military commander of AQIM – is reputed to have run a lucrative cigarette smuggling operation across Mali and southern Algeria⁽¹⁷⁾. Since then, the growth of a major cocaine trafficking route from South America across the Maghreb to Europe has exploited cigarette smuggling routes established in the late twentieth century.

Facilitating all of these threats is the **complicity of officials at key borders** and hotspots. However, some governments across the region have recently made enhancing border security and tackling corruption a greater stated priority⁽¹⁸⁾. To understand the likely effects of these moves, it is useful to consider the immediate outlook for broader efforts to disrupt illicit trade in the region.

Outlook

An **enhanced emphasis on border security** in parts of the region – though targeted primarily at disrupting terrorist groups and trafficking in illegal goods – has recently started to impact illicit trade. Notably, a growing military presence and increased security structures at key borders has seen certain crossings blocked to smugglers⁽¹⁹⁾. In parallel, Moroccan, Algerian, Tunisian and Libyan authorities have at various times launched more concerted initiatives to address illicit trade across their borders⁽²⁰⁾. The timing of these efforts may be economically driven: the focus on fuel smuggling in Algeria is likely to have been prompted by the global drop in oil prices and the ongoing economic crisis facing the country⁽²¹⁾.

Together these moves have started to have an impact. In the past, large volumes of illicit goods would transit such crossings in heavily armed truck convoys, with the complicity of law enforcement. **Yet increased surveillance and enforcement** have made such movement more difficult. In addition, the greater use of drone surveillance in recent years has meant that large truck convoys are more easily detected in wide expanses of open desert, increasing their vulnerability to interception⁽²²⁾.

Such shifts have not put an end to cross-border smuggling, but have driven **shifts in the smuggling methods employed**. Large consignments of illicit commodities are now increasingly broken down into multiple smaller packages, transported using a 'little and often' approach to evade detection⁽²³⁾. This low-volume, high-frequency approach is reflected in low-level 'ant smuggling', and the use of smaller vehicles for commodity smuggling. To evade detection, some groups have been known to bury smuggled goods close to borders and provide their cross-border counterparts with GPS coordinates⁽²⁴⁾.

Sources: ⁽¹⁶⁾ Hanlon and Herbert, 'Border Security Challenges in the Grand Maghreb', p. 15. ⁽¹⁷⁾ Author interview with Professor Jeremy Keenan, London, 7 June 2017; Africa Review, 'Mokhtar Belmokhtar: The Algerian Cigarette-Smuggling Jihadist', 18 January 2013. ⁽¹⁸⁾ Carlotta Gall, 'Corruption Crackdown Intensifies in Tunisia, and the People Cheer', New York Times, 25 June 2017. ⁽¹⁹⁾ Author interview with Professor Jeremy Keenan, London, 7 June 2017; BBC, 'Tunisia Builds Anti-Terror Barrier Along Libya Border', 7 February 2016; Moroccan Times, 'Morocco: More Border Security and Patrols Along Border With Algeria', 18 March 2016. ⁽²⁰⁾ Author interview by phone with Matthew Herbert, 20 June 2017; AFP, 'Algeria Smuggling Crackdown Cuts Fuel Line to Morocco', 28 September 2013; North African Post, 'Moroccan Security Forces Crackdown on Smugglers on Mauritanian Borders', 17 August 2016; Libya Observer, 'Fuel and Gas Crisis Committee Launches Land, Sea, and Air Operation to Stem Smuggling in Libya', 6 April 2017. ⁽²¹⁾ Author interview with Professor Jeremy Keenan, London, 7 June 2017; Djamilia Ould Khettab, 'Algeria Economy: "The Worst is to Come"', Al-Jazeera, 11 May 2016. ⁽²²⁾ Author interview with Professor Jeremy Keenan, London, 7 June 2017. ⁽²³⁾ Ibid. ⁽²⁴⁾ Author interview by phone with Mark Shaw, 14 June 2017.

This procedure speaks to the high degree of coordination often required for networks involved in illicit trade to function. There has historically been a strong tribal element to smuggling groups: these have long formed around family and tribal networks established over hundreds of years, often across national borders⁽²⁵⁾. However, these groups are thought to have become more fragmented in recent years, with products distributed through growing networks of ‘mules’ – low-level criminals who receive a small cut of the profits⁽²⁶⁾. As this has occurred, **the groups involved have become more fluid**, with apparently greater numbers engaged in illicit trade, though their involvement may be minor and transient⁽²⁷⁾.

Such shifts **paint a picture of a diversifying context**, which presents numerous challenges to border authorities. Illustrating how this plays out in particular locations, the following sections explore two national contexts. The first looks at Libya – providing snapshots of illicit trade across two key national borders: those with Tunisia and Niger. The following section examines the case of Algeria, covering its borders with Mali, Morocco and Tunisia. This focus on selected borders is crucial: illicit trade, like its licit counterpart, is both highly location-specific, and susceptible to change over time in line with local political, social and economic dynamics.

Libya

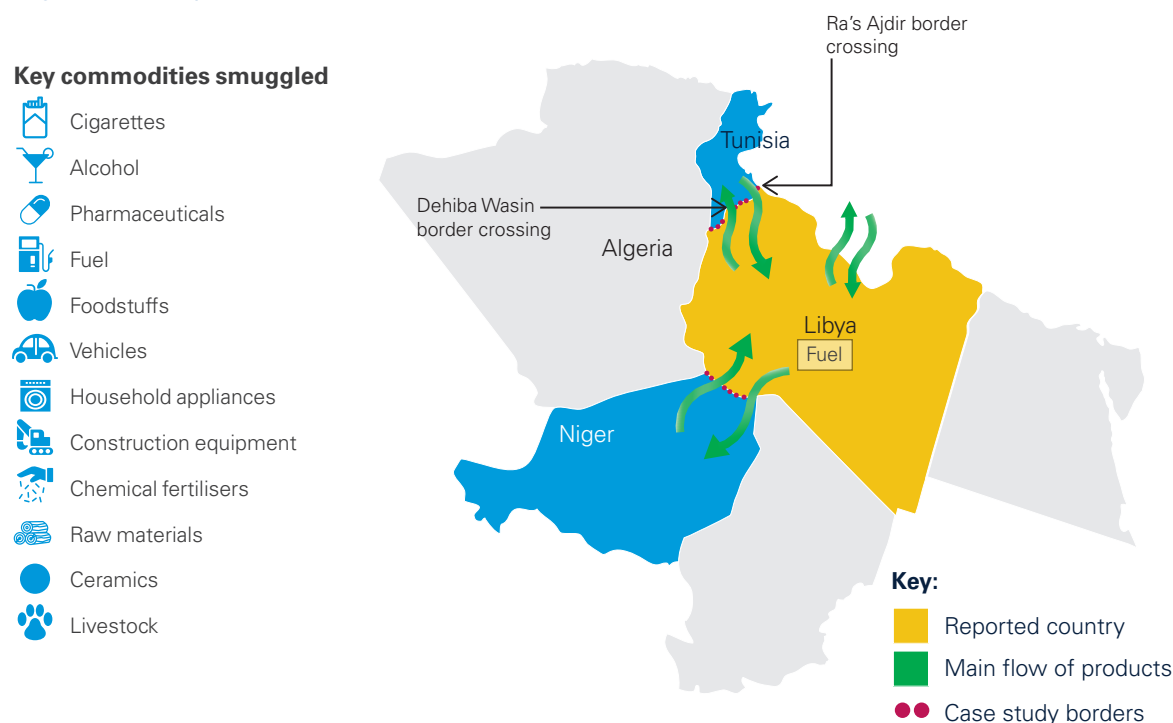
Since the fall of the Gaddafi regime in August 2011, a lack of effective state control and security capacity has rendered Libya **a hub for all forms of smuggling activity**. Today, illicit trade represents the main source of income for many Libyans in border regions, with any attempt to disrupt this activity likely to lead to heightened social tension⁽²⁸⁾. This section seeks to illustrate some of the trends described above, providing ‘snapshots’ of particular Libyan borders. Though smuggling takes place across all of the country’s borders, this section zooms in on two in particular: that to the northwest with Tunisia, and that to the south with Niger. (Figure 1).

Libya–Tunisia Border

Illicit trade across Libya’s border with Tunisia is vibrant, comprising subsidised fuel as well as goods such as food, livestock and alcohol⁽²⁹⁾. While some groups tend to trade in multiple commodities, others specialise in a particular commodity based on product availability and precise location.

The organisational structures and modus operandi of the groups involved can vary over time and with the commodity in question. Fuel, for example, has historically been smuggled by two kinds of groups: local actors that source the commodity close to borders in smaller

Figure 1 - Libyan border case studies



Sources: ⁽²⁵⁾ Author interview with Professor Jeremy Keenan, London, 7 June 2017. ⁽²⁶⁾ Ibid. ⁽²⁷⁾ Ibid. ⁽²⁸⁾ Author interview by phone with international law-enforcement agent based in Tunisia, 20 June 2017. ⁽²⁹⁾ Shaw and Mangan, ‘Illicit Trafficking and Libya’s Transition: Profits and Losses’.

quantities, and more organised networks moving larger quantities, often with an escort of armed guards. More recently, such **networks are reported to have become more organised**, in response to increased pressure from border authorities⁽³⁰⁾.

Across Libya, including at various points along the Tunisian border, **crossings are a target for control by distinct tribal groups**. Such tribal smuggling groups frequently clash over control of desert crossings or smuggling routes, given the profit-making opportunities they provide⁽³¹⁾. At particular times, different groups have claimed different sections of the borders⁽³²⁾; as a result, points of entry are monitored and managed according to different rules. In general, however, once a group gains control of a key route or crossing, it will impose 'taxes' on anyone transporting commodities across it⁽³³⁾.

In some cases, such arrangements are tolerated on the other side of the border. This is illustrated at the Dehiba Wazin crossing by a relatively stable relationship between smuggling groups and local Tunisian communities, though **crackdowns on fuel smuggling** by Libya's Fuel and Gas Crisis Committee have triggered protests more recently⁽³⁴⁾.

At other formal crossings, such disruption is commonplace: the Ra's Ajdir crossing along Libya's northern border with Tunisia is closed regularly over disagreements between local Tunisian communities and the Libyan groups controlling the crossing⁽³⁵⁾. Recent months have also seen an **increase in illicit trade-related violence** at this border. Since late 2016, there have been reports of a Libyan vigilante group, the 'Anti-Fuel-Smuggling Brigade', attacking trucks carrying fuel into Tunisia⁽³⁶⁾. It has been observed, however, that this may be an attempt by existing fuel smuggling networks to discourage competition from smaller-scale rivals⁽³⁷⁾.

As well as fuel moving into Tunisia, an array of other goods is smuggled in both directions. In addition to the Ra's Ajdir and Dhehiba Wazin crossings, other – particularly high-value – products are increasingly **moved along unofficial tracks traversing the border**⁽³⁸⁾. Commodities smuggled into Libya on these routes include chemical fertilisers, foodstuffs, ceramics and livestock – demand for such goods has risen with inflation and escalating commodity prices in post-revolution Libya⁽³⁹⁾. According to the International Crisis Group, alcohol imported from Algeria and cannabis harvested in Morocco is also smuggled via both border posts and unofficial tracks. In the other direction, products smuggled into Tunisia range from fuel to pharmaceuticals, cigarettes and vehicles⁽⁴⁰⁾.

Many smugglers deal in multiple commodities simultaneously.

A common modus operandi observed is for Tunisian smugglers to drive to Libya carrying couscous, pasta and eggs to sell on at a profit in Libya⁽⁴¹⁾. When in Libya, smugglers fill their vehicles with fuel, and purchase other consumer products, from cosmetics to electronics. They then drive back to Tunisia, where they sell the fuel and other goods to street vendors at a profit⁽⁴²⁾.

Smuggling routes across the far north of the border tie into a vibrant illicit economy on Libya's northwestern coast.

This has emerged out of the region's location at the nexus of smuggling routes from the west and south; its major cities' growing markets for illegal goods; and, crucially, its proximity to the nearest European territory⁽⁴³⁾. From the region's ports, for example, subsidised fuel is known to be smuggled to ports in Italy, Malta and Turkey for consumption and onward transport to higher priced markets⁽⁴⁴⁾. Vessels carrying diverted fuel in this way are rarely stopped when crossing the Mediterranean, with data on these shipments thus lacking⁽⁴⁵⁾.

In other cases, goods from regions such as Asia are imported by sea into Libya's northern ports, with the country acting as a significant destination market. Most notably in this regard, in recent years, **the Libyan market for illicit pharmaceuticals has prospered**. Recent years have seen large seizures, particularly of the prescription opioid painkiller Tramadol⁽⁴⁶⁾. In February 2016, authorities seized 45 million Tramadol pills inside three containers entering Tobruk port from India⁽⁴⁷⁾. In February 2017, the Misurata Seaport Customs Department confiscated 140 million Tramadol tablets and 200 million Viagra tablets, again arriving from India⁽⁴⁸⁾.

Libya–Niger Border

Libya's southwest is a **major gateway for cross-border smuggling routes**, with flows of commodities both legitimate and illegal entering the country from Niger, Algeria and Chad. These flows converge at Sebha – known as 'the capital of the south' for traffickers – before moving north and east across Libya⁽⁴⁹⁾.

Here, competition for control of smuggling routes is fierce – a direct outcome of the post-Gaddafi fallout for those involved in illicit trade. As protection for favoured groups under Gaddafi disappeared, Libya's illicit economy evolved into a **patchwork of fragmented and negotiated arrangements**. With Gaddafi's demise, new entrants could gain access to key routes and markets, with competition between growing numbers of participants prone to regular contestation by the 'rule of the gun'⁽⁵⁰⁾.

Sources: ⁽³⁰⁾ Author interview by phone with Matthew Herbert, 20 June 2017; author interview with regional security expert, 21 June 2017. ⁽³¹⁾ Author interview by phone with Max Gallien, 19 June 2017. ⁽³²⁾ Hadi Fornaji, 'Tunisia-Libya Crossing Closed in Border Takeover Bid by Zawia Militia', Libya Herald, 25 July 2016. ⁽³³⁾ Ibid. ⁽³⁴⁾ Author interview by phone with international law-enforcement agent based in Tunisia, 20 June 2017; Libya Observer, 'Fuel and Gas Crisis Committee Launches Land, Sea, and Air Operation to Stem Smuggling in Libya', 6 April 2017. ⁽³⁵⁾ Ibid. ⁽³⁶⁾ Abdulkader Assad, 'Unidentified Armed Group Wages War on Tunisia-Bound Fuel-Smuggling Tanker Trucks', Libya Observer, 31 December 2016. ⁽³⁷⁾ Author interview by phone with international law-enforcement agent based in Tunisia, 20 June 2017. ⁽³⁸⁾ ICG, 'Tunisia's Borders: Jihadism and Contraband'. ⁽³⁹⁾ Sami Zaptia, 'NOC's Fuel Crisis Committee Reports Continued Success in its Anti-Smuggling and Profiteering Efforts', Libya Herald, 6 June 2017; ICG, 'Tunisia's Borders: Jihadism and Contraband'. ⁽⁴⁰⁾ ICG, 'Tunisia's Borders: Jihadism and Contraband'. ⁽⁴¹⁾ Author interview by phone with Max Gallien, 19 June 2017. ⁽⁴²⁾ Ibid. ⁽⁴³⁾ Shaw and Mangan, 'Illicit Trafficking and Libya's Transition: Profits and Losses'. ⁽⁴⁴⁾ Author interview by phone with Mark Shaw, 14 June 2017; New York Times, 'U.N. Resolution Targets Libyan Fuel Smugglers', 30 June 2017. ⁽⁴⁵⁾ Ibid. ⁽⁴⁶⁾ Ibid. ⁽⁴⁷⁾ Libya Observer, '45 Million Tramadol Pills Seized In Tobruk Port', 28 February 2016. ⁽⁴⁸⁾ Libyan Express, 'Containers Full of Tramadol and Viagra Seized in Misurata Seaport', 11 February 2017. ⁽⁴⁹⁾ Shaw and Mangan, 'Illicit Trafficking and Libya's Transition: Profits and Losses'. ⁽⁵⁰⁾ Ibid.

On Libya's southern border, in the turbulent wake of the revolution, the Tuareg and the Toubou – two non-Arab, nomadic and semi-nomadic tribal groups – negotiated an agreement over borders and therefore smuggling networks. This arrangement was short-lived, resulting in challenges for control of territory between the two groups. Today, the **Toubou have consolidated control over territory** and smuggling networks traversing the Libya–Niger border, with the Tuareg operating further west⁽⁵¹⁾.

The majority of Toubou live in northern Niger, southern Libya and northern Chad and were marginalised under Gaddafi. Though officially supporting Libya's eastern government, many traditionally disadvantaged Toubou areas of Libya have seen continued neglect in recent years⁽⁵²⁾. Smuggling operations have enabled the region to sustain itself in the absence of the state, with the economy now dominated by illicit trade in a range of commodities. **This trade runs in both directions:** from Niger, illicit flows of food move north into Libya, while subsidised fuel – as well as weapons, ammunition and drugs – move south from Libya into northern Niger⁽⁵³⁾.

Some smugglers operating across the border **specialise in a particular commodity** based on product availability and precise location. Others trade in multiple commodities simultaneously, with similar overlaps between those engaged in smuggling both licit and illicit commodities. An example lies in intersections between illicit trade in a range of commodities and the vibrant migrant smuggling route crossing Niger into Libya, before moving north to the Mediterranean coast. Known as the 'Central Route', this route runs from West Africa through Madama in northern Niger northward to the town of Murzuq, south of Sebha, where people are stored prior to onward transportation⁽⁵⁴⁾.

Many of those active along this route **engage in 'dual smuggling operations'**, moving migrants alongside other smuggled goods from food to household goods and other basic commodities. As noted by researchers Peter Tinti and Tom Westcott, those engaged in 'dual smuggling' are primarily lorry drivers looking to supplement their profits by offering migrants rides⁽⁵⁵⁾. Other, mainly Toubou smugglers, are more likely to deal only in migrants, but may fill their vehicles with commodities – including petrol and diesel – to smuggle into Niger on their return journey⁽⁵⁶⁾.

Fractured border control at the Libyan border post-Gaddafi presents little in the way of obstacles to illicit trade. Along the 354 km border, smugglers can

avoid formal crossing points and checkpoints by taking alternative routes⁽⁵⁷⁾. The Tummo border crossing, for example, is manned by small numbers of security guards, mostly untrained former revolutionary fighters and almost all Toubou⁽⁵⁸⁾. They took over after non-Toubou government border security personnel from other parts of Libya abandoned the post in the wake of the revolution.

In Niger, pressure from the EU has forced a more stringent approach specifically to migrant smuggling. This has seen the funding of capacity building for law-enforcement authorities, increased security cooperation and a **new law against migrant smuggling**⁽⁵⁹⁾. Yet the impact of these measures has not extended to flows of smuggled goods, whether fuel, foodstuffs, vehicles or spare parts – which continue to transit the border in both directions⁽⁶⁰⁾.

Further facilitating illicit trade is the fact that it is almost entirely accepted as a legitimate aspect of daily life. When questioned about smuggling activity in his country, former Libyan leader Muammar Gaddafi was quoted as saying **'What black markets? They are people's markets'**⁽⁶¹⁾. Though Gaddafi is long gone, this spirit prevails, particularly at borders such as that with Niger, where illicit trade represents a significant source of community income.

Algeria

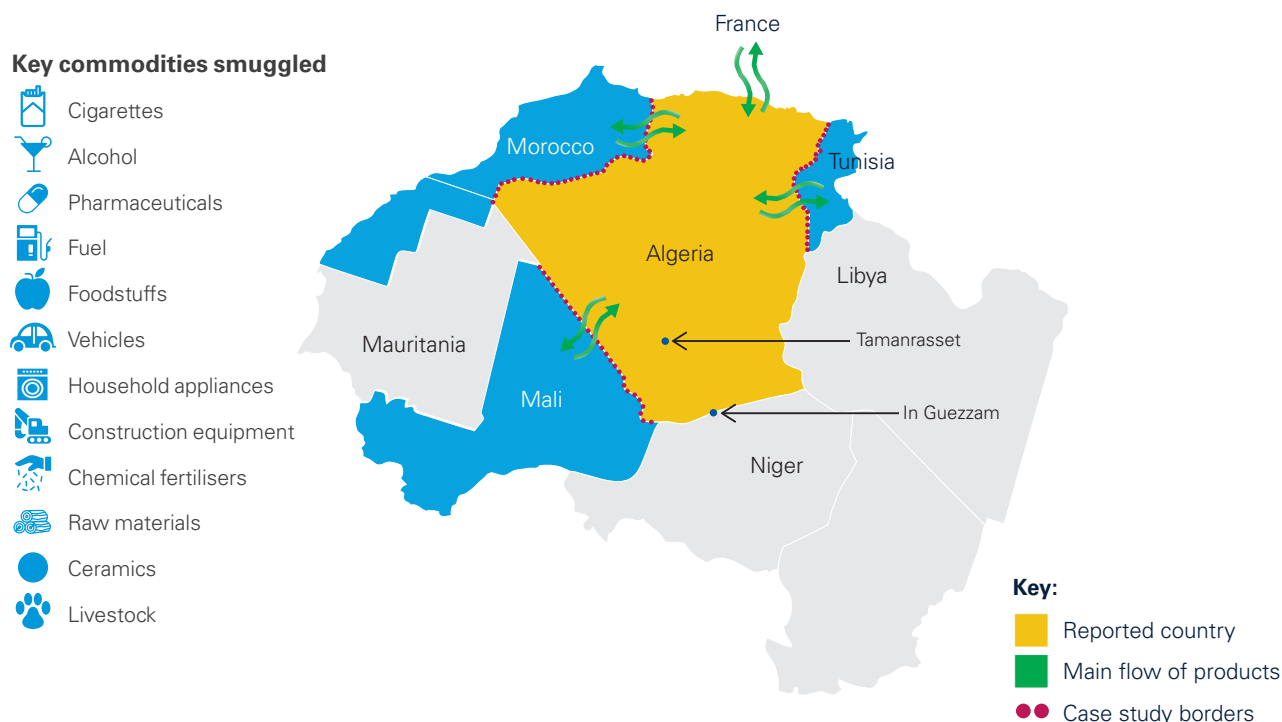
Covering an area of over 2 million km², more than four-fifths of which is desert, Algeria's strategic location has long made it vulnerable to smuggling in a range of commodities, both licit and illicit. Today, as in Libya, **illicit trade represents a core income source** for many communities in border regions, though the nature of the trade involved varies across the country's national boundaries. This section seeks to illustrate some of these variations, providing 'snapshots' of illicit trade across three specific borders: those with Mali, Morocco and Tunisia.

Algeria–Mali Border

From the 1990s, Mokhtar Belmokhtar, frequently described as the former military commander of AQIM, is famously reputed to have run a lucrative tobacco smuggling operation across Mali and southern Algeria⁽⁶²⁾. Today, the illicit cigarette trade in the region continues to thrive, alongside illicit trade in a range of other commodities.

Sources: ⁽⁵¹⁾ Peter Tinti and Tom Westcott, 'The Niger-Libya Corridor: Smugglers' Perspectives', Institute for Security Studies Paper 299, November 2016. ⁽⁵²⁾ Tinti and Westcott, 'The Niger-Libya Corridor'. ⁽⁵³⁾ Author interview with regional security expert, 21 June 2017. ⁽⁵⁴⁾ Tinti and Westcott, 'The Niger-Libya Corridor'. ⁽⁵⁵⁾ Ibid. ⁽⁵⁶⁾ Ibid. ⁽⁵⁷⁾ Tom Westcott, 'An Open Secret: The People-Smugglers of Southern Libya', Middle East Eye, 18 March 2016. ⁽⁵⁸⁾ Tinti and Westcott, 'The Niger-Libya Corridor'. ⁽⁵⁹⁾ Peter Tinti, 'The EU's Hollow Victory over Migrant Smuggling in Niger', Refugees Deeply, 17 January 2017. ⁽⁶⁰⁾ Author interview with regional security expert, 21 June 2017. ⁽⁶¹⁾ Shaw and Mangan, 'Illicit Trafficking and Libya's Transition: Profits and Losses'. ⁽⁶²⁾ Author interview with Professor Jeremy Keenan, London, 7 June 2017.

Figure 2 - Algeria border case studies



There is a strong tribal element to this trade⁽⁶³⁾. Along the 1,376km Malian border, illicit trade has historically been controlled largely by Tuareg tribes⁽⁶⁴⁾. However, the official closure of Algeria's southern borders in January 2013, following the jihadist takeover of northern Mali⁽⁶⁵⁾, saw many of the Tuareg involved shift their operations to Libya⁽⁶⁶⁾. It is now reported that **'Tashliks' dominate much of the smuggling activity** in southern Algeria, the term 'Tashlik' used by the Tuareg to refer to Arab tribes from Mauritania, Mali and northern Niger, including the Kounta, Berabiche, Lamhar and Tassara Arabs⁽⁶⁷⁾.

Such smuggling activity is facilitated by **Algeria's annual transport subsidy system**. This system is provided to ensure that essential commodities reach local communities in the country's south. Yet a side effect has been the development of a lucrative illicit trade in diverted products on the southern borders – with both Mali and Niger⁽⁶⁸⁾. This arises from the fact that the Algerian government reimburses all fuel costs to those who transport food from the country's north to the south, but does not monitor the quantity of consignments delivered.

Capitalising on this, since 2013, Tashlik smuggling groups have **invested heavily in pasta factories and date farms** in northern Algeria⁽⁶⁹⁾. These groups then transport pasta and dates from northern Algeria in quantities far exceeding domestic demand in the south. While a small amount is sold locally, much is smuggled across the

country's southern borders for onward sale, including to domestic markets in Mali.

The southern Algerian city of Tamanrasset is a major hub for such illicit trade activity. Here, smuggled commodities are bought and sold openly in markets and on the street⁽⁷⁰⁾. The city's smuggling trade thrives as a result of its strategic position to the north of the country's Malian and Nigerien borders. Despite being officially closed in 2013, both borders remain porous; smugglers reportedly continue to cross them daily⁽⁷¹⁾.

Close to the Malian border, **the town of In Guezzam is a key entry point** for illicit food consignments from Algeria moving southward into the Sahel. Here, Malian and Nigerien Arabs buy food that has been smuggled from northern Algeria, and transport it southward into Niger and Mali⁽⁷²⁾. Consignments are collected near In Guezzam by Malian and Nigerien smugglers, often in convoys of six or seven all-terrain vehicles⁽⁷³⁾. Food consignments from Algeria are often smuggled southward alongside diverted fuel, which is also subsidised by the Algerian government and can be sold for a significant profit in Mali. Fuel is typically smuggled in 200 litre drums, with eight drums per vehicle⁽⁷⁴⁾. In terms of flows back into Algeria, flows northward from Mali include illicit cigarettes, amongst other commodities, for which the country remains a key transit country.

Sources: ⁽⁶³⁾ Ibid. ⁽⁶⁴⁾ Ibid. ⁽⁶⁵⁾ BBC, 'Libya Orders Borders in South Closed', 16 December 2012. ⁽⁶⁶⁾ Author interview with Professor Jeremy Keenan, London, 7 June 2017. ⁽⁶⁷⁾ Jeremy Keenan, 'Algeria Border Closure Has Negative Effects on Sahel', New African, March 2017; author interview with Mark Shaw, 14 June 2017. ⁽⁶⁸⁾ Mark Shaw and Tuesday Reitano, 'The Political Economy of Trafficking and Trade in the Sahara: Instability and Opportunities', December 2014. ⁽⁶⁹⁾ Author interview with Professor Jeremy Keenan, London, 7 June 2017. ⁽⁷⁰⁾ Ibid. ⁽⁷¹⁾ Keenan, 'Algeria Border Closure Has Negative Effects on Sahel'. ⁽⁷²⁾ Ibid. ⁽⁷³⁾ Ibid. ⁽⁷⁴⁾ Ibid.

At the border, effective Algerian–Malian security cooperation has historically been hindered by **limited cross-border coordination**, though renewed impetus appears to be emerging⁽⁷⁵⁾. As noted, smugglers of a range of commodities continue to transit the border, despite this remaining officially closed. In response, Algerian authorities have recently imposed a new set of measures aimed at intercepting both trade in smuggled commodities and irregular migration⁽⁷⁶⁾. First, a stronger military presence has been established, with Algerian security forces patrolling the border in greater numbers. This means that smugglers entering from Mali increasingly risk coming under fire by Algerian forces⁽⁷⁷⁾. Second, in recent years the government has supported community-based job schemes around the southern borders. These involve promoting the manufacturing of legal products, which are subsequently shipped north for sale elsewhere in Algeria⁽⁷⁸⁾.

The latter initiative is crucial. As elsewhere in the region, dependence by border communities on commodity smuggling for their livelihoods poses significant challenges to efforts aimed at disruption. For example, an increase in smuggling along the border with Mali has been **attributed largely to a collapse of tourism** since the country's civil war in 2012 (though tourist numbers had already diminished significantly with an escalation in European hostage-taking from 2008). This was an industry that once provided the main form of economic activity for communities across the region; its demise has only bolstered local engagement in illicit trade⁽⁷⁹⁾.

Algeria–Morocco Border

Known as 'the Oriental', the region of Morocco bordering Algeria has historically been traversed by significant illicit flows – of cigarettes, food, fuel and pharmaceuticals, amongst others⁽⁸⁰⁾. This has been the case despite **the border having been officially closed for 20 years**. In 1994, Algeria formally shut the frontier after Morocco imposed visa restrictions on Algerian citizens. The Moroccan move came in the wake of a guerrilla attack on the Atlas Asni Hotel in Marrakech, in which it suspected Algeria of playing a role⁽⁸¹⁾.

Extending 1,559 km south from the Mediterranean to the Western Sahara, **the border is one of the world's longest closed frontiers**. Its closure has long restricted legal trade between Morocco and Algeria – in turn, fuelling demand for a range of smuggled commodities. This demand exists perhaps most strongly in Morocco, where the economic and trade effects of the closure are arguably

harder felt. Notably, it has created significant demand in Morocco for smuggled Algerian fuel, which has become one of the most lucrative and longstanding forms of smuggling between the two states.

The border itself is not only officially closed, but also increasingly reinforced. In 2014, the two countries commemorated the 20th anniversary of the closure by establishing separation structures⁽⁸²⁾. On the Algerian side, the military began digging a border trench – completed in 2016 – to impede the transit of illegal goods, and has significantly increased surveillance. The Moroccans have built a large fence along the northern part of the border and established video surveillance. The Moroccan fence covers only around 150 km, with large stretches of the border further south not affected⁽⁸³⁾. Yet the Algerian trench appears to have significantly disrupted commodity smuggling, although it does not appear to have closed down all forms illicit trade and the extent of persisting flows remains unclear.

Before the completion of the trench, **goods crossing the border were many and varied**. Diverted subsidised fuel has historically been smuggled from Algeria's Wilaya of Tlemcen towards Morocco's Prefecture of Oujda-Angrad and Berkane Province, though in reduced volumes since 2014⁽⁸⁴⁾. Other products, including pharmaceuticals, foodstuffs, scrap metal, alcohol and tobacco have long been smuggled into Morocco alongside petrol, using the same routes and crossings. Driving these flows have been Algerian government subsidies, which have fuelled black-market trade.

A range of goods has historically travelled back the other way from Morocco into Algeria. At various times, these have included alcohol, foodstuffs and spare vehicle parts, as well as illegal drugs such as cannabis resin, for which Morocco remains the world's primary source country⁽⁸⁵⁾. Many of these goods also **travel a longer route traversing Mauritania**, before entry into Algeria and other countries across the Maghreb⁽⁸⁶⁾.

Overlaps in the routes and crossings used have resulted from the **small number of viable border crossings**. In particular, the towns of Oujda and Nador in northeast Morocco have historically been hubs for illicit trade in fuel and other subsidised goods crossing the border from Algeria⁽⁸⁷⁾. Beyond the routes employed, similar overlaps are thought to have linked groups smuggling different commodities, with illicit cigarettes thought to be transported alongside a range of other goods⁽⁸⁸⁾.

Sources: ⁽⁷⁵⁾ Mohammed Sharraq, 'Failed Security Cooperation Leads to Border Problems in Sahel', Al-Monitor, 27 May 2014. ⁽⁷⁶⁾ Lamine Chikhi, 'Wary of Disorder in Libya and Mali, Algerian Army Targets Southern Smuggling', Reuters, 11 May 2015. ⁽⁷⁷⁾ Keenan, 'Algeria Border Closure Has Negative Effects on Sahel'. ⁽⁷⁸⁾ Ibid. ⁽⁷⁹⁾ Author interview by phone with Matthew Herbert, 20 June 2017. ⁽⁸⁰⁾ Author interview by phone with illicit trade expert in Morocco, 15 June 2017. ⁽⁸¹⁾ Djamilia Ould Khettab, 'Algeria Turns "Deaf Ear" to Border Dispute', Al-Jazeera, 31 October 2014. ⁽⁸²⁾ Middle East Monitor, 'Morocco and Algeria Build Separation Fences along their Borders', 9 September 2014. ⁽⁸³⁾ Author interview by phone with Moroccan illicit trade expert, 19 June 2017. ⁽⁸⁴⁾ Ibid. ⁽⁸⁵⁾ Author interview by phone with Matthew Herbert, 20 June 2017; Isabelle Mandraud, 'Algeria Turns Off Tap on Morocco's Smuggled Petrol Trade', Guardian, 15 October 2013. ⁽⁸⁶⁾ Maghreb Times, 'Morocco Seizes 7.42 Tons of Cannabis at Crossing Point with Mauritania', 13 March 2017. ⁽⁸⁷⁾ Author interview by phone with Matthew Herbert, 20 June 2017. ⁽⁸⁸⁾ Author interview by phone with illicit trade expert in Morocco, 15 June 2017.

Facilitating illicit trade is the **persistent animosity between Morocco and Algeria**, which commonly accuse each other of supporting terrorist groups and drug smugglers. Most crucially, security collaboration between the two states has been hindered by half a century of such political tension and distrust⁽⁸⁹⁾. This has not prevented unilateral initiatives, however. On the Algerian side, aware of the losses of state revenues incurred, the government has increasingly cracked down on fuel smuggling, at various times deploying greater resources to the border⁽⁹⁰⁾.

In response to such shifts in enforcement, **smuggling modi operandi have adapted**. In the summer of 2013, for example, increased Algerian security led petrol smugglers to trade their four-by-four vehicles for the quieter transport offered by donkeys⁽⁹¹⁾. With only these donkeys left to convey the vital fuel, prices soared; reports also emerged of donkeys being shot by Algerian authorities.

In quieter times, the large profits to be made have **allowed smugglers to offer substantial bribes** to border officials, who receive very low salaries in comparison. Indeed, pervasive low-level corruption at the border has historically served as a key facilitator of cross-border smuggling. Social acceptability is a further enabler: as elsewhere in the region, the smuggling of cigarettes, food and fuel is not considered a serious crime by large sections of the population. Such perceptions affect official responses; while there is legislation available to prosecute those engaged in illicit trade, such laws are not frequently applied.

Algeria–Tunisia Border

Since the fall of former President Ben Ali in 2011, **illicit trade has increased** along Tunisia's western border with Algeria⁽⁹²⁾. Although smuggling dates back to before Ben Ali's overthrow, this activity was then largely controlled by select cartels. Since 2011, a major shift has seen the contraband market open up to greater numbers of individuals and groups from across the country. Today, smuggling in many diverted commodities is open to small traders and border community residents, based along the length of the Algeria–Tunisia border⁽⁹³⁾.

In some cases, families run petrol smuggling networks, with the men functioning as smugglers while the women act as distributors. Other networks are run by local businessmen, who provide leadership and financing to broader networks of smugglers and broker links with border officials. The most widespread activity carried out by such networks is the transportation

of goods and the bribing of customs officials to accept false papers and avoid paying taxes and fines. Whatever the commodity in question, corruption serves as a key facilitator of illicit trade. For their part, the majority of border residents do not consider small-scale transporters as true 'smugglers' – or *kanatreh* – **preferring instead to use the term 'traders' or 'entrepreneurs'**⁽⁹⁴⁾.

These actors operate along an open, porous border. The mountainous section between Tabarka and Kasserine is dotted with plateaus and human settlements, making border crossings simple over a 300 km stretch⁽⁹⁵⁾. The higher population density here also complicates efforts by security forces to monitor the border with drones and radar⁽⁹⁷⁾. As a result, the cities of Tabessa and Annaba in Algeria, and Jendouba, El Kef, Kasserine and Gafsa in Tunisia have grown into smuggling hubs.

Illicit trade involves mainly food, fuel, electronics and clothing, amongst other commodities **widely viewed as comprising 'innocent smuggling'**⁽⁹⁸⁾. The most lucrative trade is that in subsidised fuel moving from Algeria into Tunisia. Here, Algerian smugglers – known as *trabendistes* – source fuel from petrol pumps and tankers supplying service stations near the border and in inland cities⁽⁹⁹⁾. They then transport the fuel to storage points, located near border tracks navigable by car or tanker truck⁽¹⁰⁰⁾. At the border, donkeys are used to carry fuel across to Tunisian smugglers waiting on the other side. These smugglers average about four trips to the border a day, collecting and storing the fuel in nearby houses prior to distribution at street level nationwide.

The procedure is similar for **smuggled products such as cigarettes and spirits**, which are sold on to hotels on the Tunisian coast, or re-exported to Libya. In 2016, for example, KPMG data revealed the consumption of over 0.39 billion Algerian-labeled illicit cigarettes in Tunisia⁽¹⁰¹⁾. As for commodities smuggled out of Tunisia into Algeria, fieldwork by the International Crisis Group lists the movement of such varied goods as coral in the region of Tabarka, subsidised foodstuffs, livestock, construction materials, and clothes made at coastal Tunisian factories⁽¹⁰²⁾.

In recent years, the Tunisian government has intensified its internal security coordination and reinforced border security services⁽¹⁰³⁾. These efforts follow in the wake of a drastic reduction in control operations and the withdrawal of police from many border regions directly after the 2011 revolution⁽¹⁰⁴⁾. Of note here, however, is the sizeable small-arms trade that developed during the revolution: the widespread availability of arms

Sources: ⁽⁸⁹⁾ Hanlon and Herbert, 'Border Security Challenges in the Grand Maghreb', p. 6. ⁽⁹⁰⁾ Jalal Al Makhfi, 'Algeria Smuggling Crackdown Cuts Fuel Line to Morocco', AFP, 28 September 2013. ⁽⁹¹⁾ Mandraud, 'Algeria Turns Off Tap on Morocco's Smuggled Petrol Trade'. ⁽⁹²⁾ ICG, 'Tunisia's Borders', p. 14. ⁽⁹³⁾ Hanlon and Herbert, 'Border Security Challenges in the Grand Maghreb'. ⁽⁹⁴⁾ Ibid. ⁽⁹⁵⁾ Ibid; Dune Voices, 'In Tunisian Town of Kasserine, Smuggling Gasoline to Algeria Fuels an Entire Economy', 1 April 2017. ⁽⁹⁶⁾ Ibid. ⁽⁹⁷⁾ Hanlon and Herbert, 'Border Security Challenges in the Grand Maghreb', p. 15. ⁽⁹⁸⁾ Ibid. ⁽⁹⁹⁾ ICG, 'Tunisia's Borders'. ⁽¹⁰⁰⁾ Ibid. ⁽¹⁰¹⁾ KPMG study on the Illicit Cigarette Trade in the Maghreb region, July 2017. ⁽¹⁰²⁾ ICG, 'Tunisia's Borders'. ⁽¹⁰³⁾ Ibid. ⁽¹⁰⁴⁾ Author interview by phone with international law-enforcement agent based in Tunisia, 20 June 2017.

means that many smugglers are now able and prepared to defend themselves against security forces. As a result, since 2011, **violent confrontations between smuggling groups** and between smuggling groups and security services have increased.

Nonetheless, tighter border security has reportedly made it much harder to buy smuggled gasoline in Tunis. In the southern region, in areas such as Medinine, Gabes, and Sfax, however, such gasoline can still be found⁽¹⁰⁵⁾. Also potentially indicative of greater success in disrupting illicit trade are recent **seizures of large illicit consignments in the country**. In November 2016, in just one example, authorities seized 125 boxes of smuggled medicines from a car entering Tunisia from Algeria. Worth \$15,000, the medicines had been destined for use as anaesthetics and dental treatments⁽¹⁰⁶⁾.

Effective **co-operation between Tunisian and Algerian authorities** is crucial to these efforts. Indeed, this relationship is frequently described as being the best in the region. The sustainability of such efforts, however, remains unclear: since the revolution, Tunisian law enforcement has been starved of funding and continues to lack the full suite of tools and training required to combat illicit trade⁽¹⁰⁷⁾. As in other examples, meanwhile, social acceptability and a lack of alternative livelihood options impedes efforts by authorities on both sides of the border to disrupt illicit trade⁽¹⁰⁸⁾. In some parts of Tunisia, crippling unemployment and high taxes on imported goods have pushed whole communities to work in the smuggling market⁽¹⁰⁹⁾.

In Tunisia, as in all cases considered in this section, **illicit trade forms a crucial part of local political economies** and security structures. It also forms a critical economic lifeline for communities facing high unemployment. Whether in fuel, cigarettes, food or prescription medications – across borders open or closed – illicit trade persists as an accepted and much-needed activity.

Its impacts, however, can be highly damaging. These extend from opening pathways to other forms of trafficking, to depriving economically weakened states of revenues. Increasingly, governments in the region have begun to crack down on smuggling in an effort to address these threats. As they do so, however, the local realities of illicit trade across the Maghreb's extensive land borders cannot afford to be ignored.

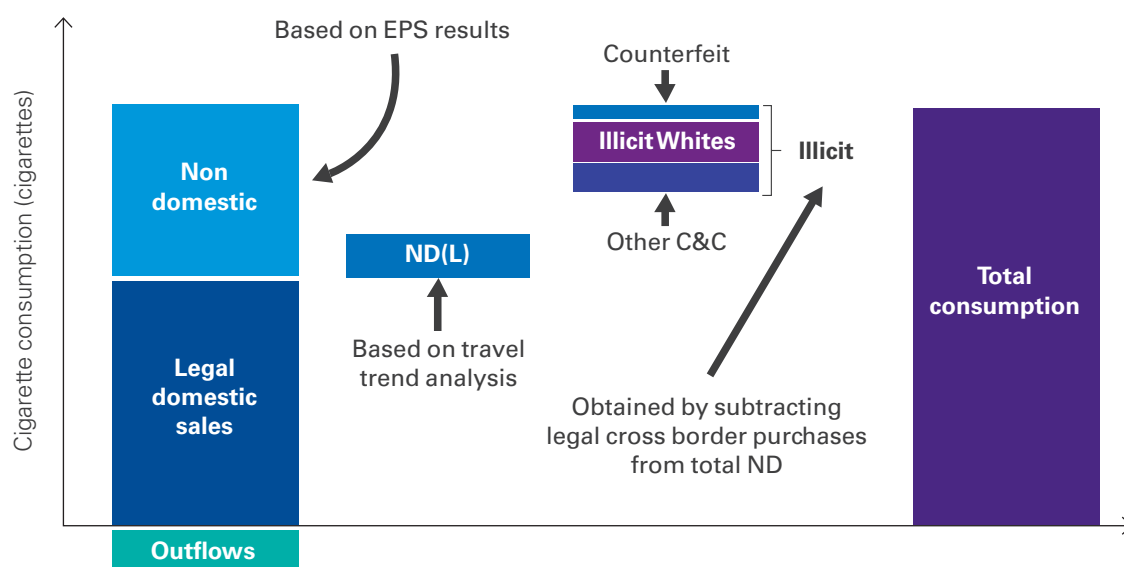
Sources: ⁽¹⁰⁵⁾ Author interview by phone with Max Gallien, 19 June 2017. ⁽¹⁰⁶⁾ International Institute of Research against Counterfeit Medicines, 'Tunisia: Smuggled Medicines Worth \$15,000 Seized in a Car at Tunisia-Algeria Border', 19 December 2016. ⁽¹⁰⁷⁾ Author interview by phone with international law-enforcement expert based in Tunisia, 20 June 2017. ⁽¹⁰⁸⁾ Dune Voices, 'In Tunisian Town of Kasserine, Smuggling Gasoline to Algeria Fuels an Entire Economy', ⁽¹⁰⁹⁾ ICG, 'Tunisia's Borders'.

Methodology

Methodology: Maghreb overview

<p>We have developed a methodology for quantifying C&C incidence across the Maghreb region</p>	<p>The methodology has been applied to multiple projects and refined to ensure that it delivers the robust and explainable results</p> <ul style="list-style-type: none"> • Our approach integrates multiple sources and custom-built analytical tools. It is based on the approach used successfully since 2006 on Project Star/SUN to assess C&C consumption across the EU markets • On the basis of varying levels of data availability and information, alternative methodologies have been developed to understand C&C consumption in Morocco, Algeria, Tunisia and Libya. These different approaches are covered in more detail on pages 57 and 61
<p>The methodology is based primarily on objective evidence from legal domestic sales (LDS) and empty pack survey (EPS) results, which are inputted into a bespoke model</p>	<p>The KPMG Maghreb Flows Model is a dynamic, iterative model that is based on LDS and EPS results, and is used to estimate the overall volume of manufactured cigarette consumption</p> <ul style="list-style-type: none"> • The KPMG Maghreb Flows Model has been developed by KPMG to measure inflows and outflows of cigarettes between the 4 Maghreb markets included in this study. It is an iterative data driven model that uses LDS and EPS results which estimates a defined quantity of domestic and non-domestic cigarettes by country of origin and brand • LDS are the starting point of the methodology, from which outflows of legal sales to other countries are then subtracted to determine legal domestic consumption • Non-domestic inflows from other countries are then added in to give an estimate for the total consumption within a market • These inflows are split into non-domestic legal and illicit consumption based on where the packs have originated and travel trend analysis • Illicit consumption is split into component parts based on the packs identified in the EPS

The study uses Legal Domestic Sales, EPS results and travel research to quantify the volume of C&C cigarettes consumed in each country of study

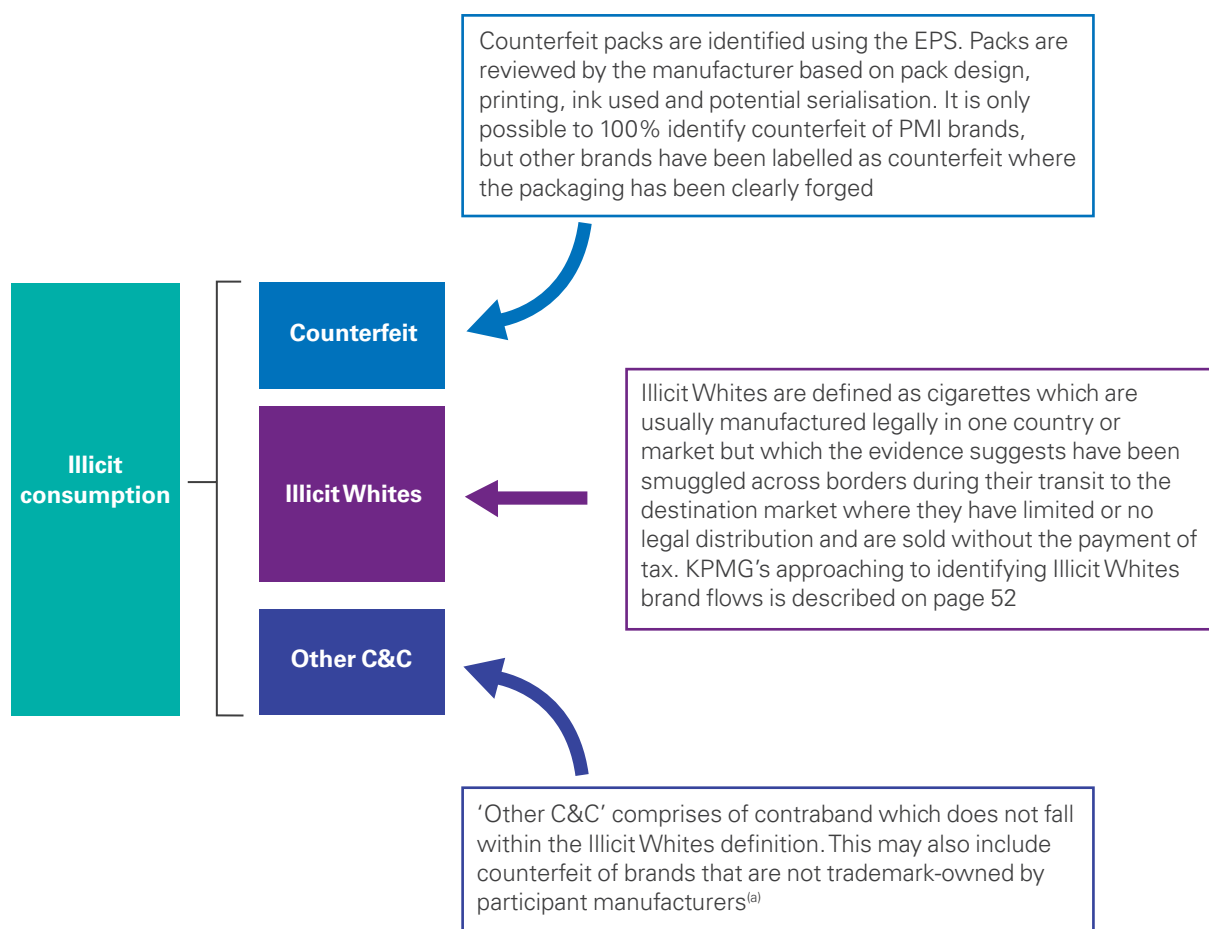


Methodology: Maghreb overview

<p>EPS results provide a robust indication of the incidence of non-domestic and counterfeit packs and country of origin</p>	<p>EPS relies purely on physical evidence, avoiding the variability of consumer bias found in interview-based methods</p> <ul style="list-style-type: none"> • EPSs were conducted for all 4 markets included in this report during the period of study • The EPSs were conducted by independent market research agencies on a consistent basis across these 4 markets, allowing for direct comparison of data and the identification of inflows and outflows between the countries analysed • Over 45,000 packs were collected in 2016 as part of this research • Further detail regarding the reliability and validity of EPS, the sampling approach and results by country at a regional level are provided on page 50, 55 and 56
<p>Travel and tourism trends are used to quantify the volume of legal non-domestic cigarette purchases</p>	<p>Travel and tourism data provided by publicly-available third-party sources are used to estimate genuine, legal non-domestic tobacco purchases in each market based on inbound visit inflows</p> <ul style="list-style-type: none"> • World Tourism Organisation⁽¹⁾ data is the main source used for travel trends • The quantum of cigarettes purchased is calculated assuming that travellers who smoke (as defined by the national smoking prevalence) will purchase their legal allowance, assuming that the price is lower • Where flows enter a country from a higher priced country they are assumed to be legal, representing leftover cigarettes smokers will consume before purchasing lower-priced cigarettes. The price of the most popular brand in each market was used to undertake that analysis • The remaining non-domestic cigarettes are contraband and make up the total volume of C&C along with the identified counterfeit • In the Maghreb, many of the brands originated from trademark-owners based in other countries but were not available legally in those countries, therefore these brands are also removed from ND(L)
<p>There are some specific limitations in the study's methodology</p>	<p>Given the innate complexity of measuring C&C, we recognise there are some limitations within the methodology</p> <ul style="list-style-type: none"> • There are two types of limitations: scope exclusions and source limitations <ol style="list-style-type: none"> 1. Scope exclusions include areas which cannot be or have not been accounted for in our scope of work and approach, such as geographic, unidentifiable brands and Other Tobacco Products 2. Source limitations are determined by the lack of availability of information or sampling criteria, which may incur coverage issues and seasonality factor
<p>To help improve the accuracy of results, some minor refinements were necessary at a country level</p>	<p>Comparison of results from alternative sources identified a few markets where country-to-country flows required adjustments due to fraudulent labelling</p> <ul style="list-style-type: none"> • As discussed in the Regional Overview, some brands were given country specific labelling when they were not available in those countries. The origin of these brands has been adjusted based on the location of the Trademark-owner

Methodology: Maghreb overview

Based on the non-domestic brands identified in the EPS, Counterfeit and contraband is allocated into three constituent parts: Counterfeit, Illicit Whites and Other C&C

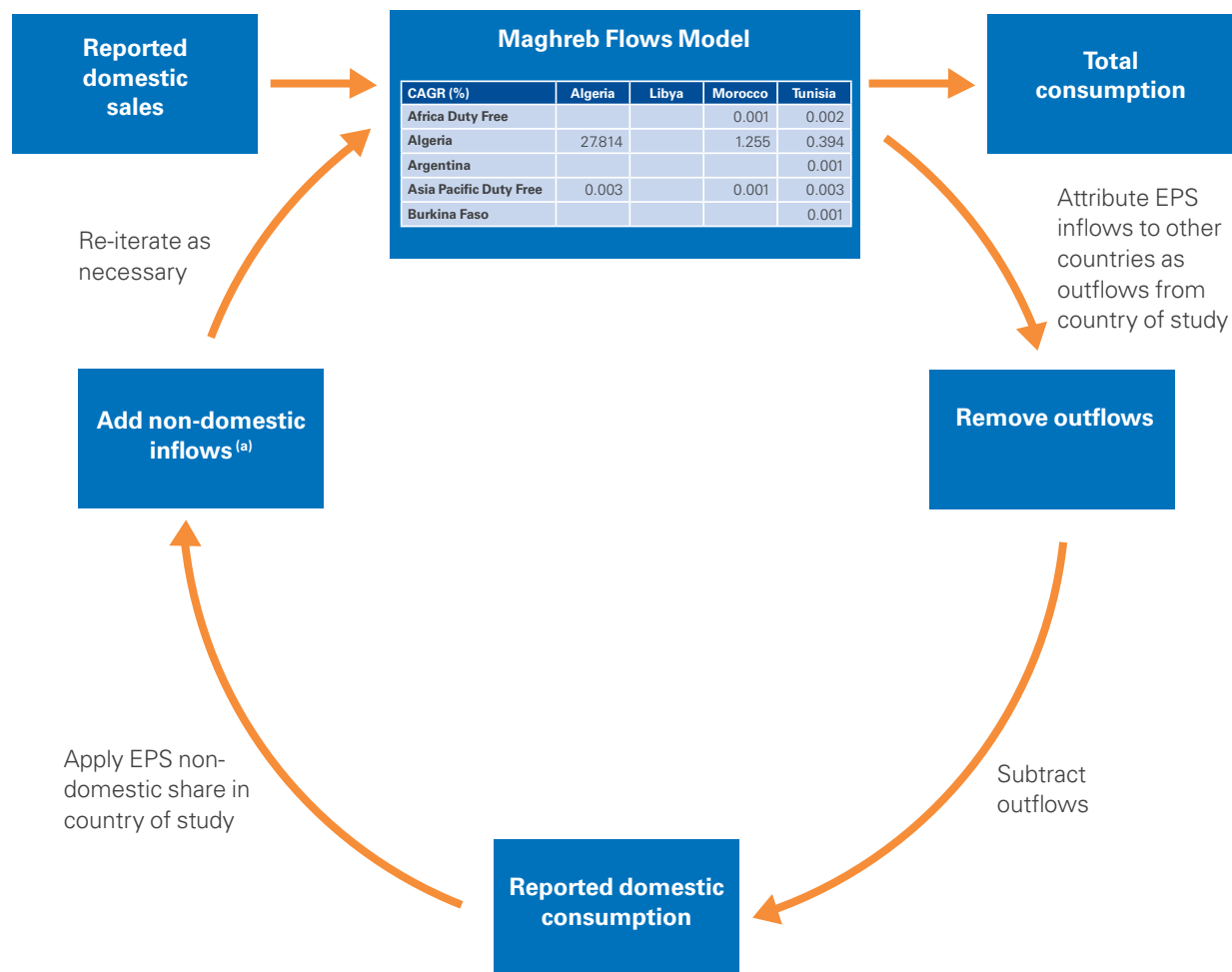


Key variations in product source, identification and analysis

- Over 83% of non-domestic C&C product identified within the Maghreb report is defined as Illicit Whites brand flows. These often tend to be transported in large volumes. Illicit Whites brand flows are not subject to the same supply chain controls as those of genuine international brands. This means that products can be legally manufactured in a country, but then imported illegally in bulk, resulting in high volumes of seizures of Illicit Whites
- 'Other C&C' makes up 17% of the total non-domestic contraband volume identified in the 4 countries of study. 'Other C&C' is generally only available through legitimate Point of Sale locations as duty has been paid in the country of origin. This type of product only occurs where there is a price incentive to smuggle the product between one country and another. This means it is generally transported in low volumes, as a result of consumers bringing back above their legal allowance. This high frequency but low volume approach, sometimes referred to as "bootlegging", which can make detection extremely difficult
- Counterfeit is also often transported in large volumes and is often identified within illegal factories. Counterfeit volumes identified in the Maghreb region were relatively low as a share of total C&C at less than 0.5%

Note: ^(a) Cigarette packs of brands that are not trade mark owned by PMI are not analysed and are all considered to be genuine unless very clearly counterfeit (e.g. clear mistakes in design)

Methodology: Maghreb overview



The KPMG Maghreb Flows Model is a dynamic, iterative model that is based on using the volume of Reported domestic sales combined with the percentage splits identified within the EPS

- LDS volumes are the starting point of the model from which outflows of legal sales to other countries are then subtracted to estimate Reported domestic consumption in a market
- The percentage of non-domestic inflows from other countries are then added 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 4 countries of study where EPS results were available to ensure that all flows estimated are equal

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

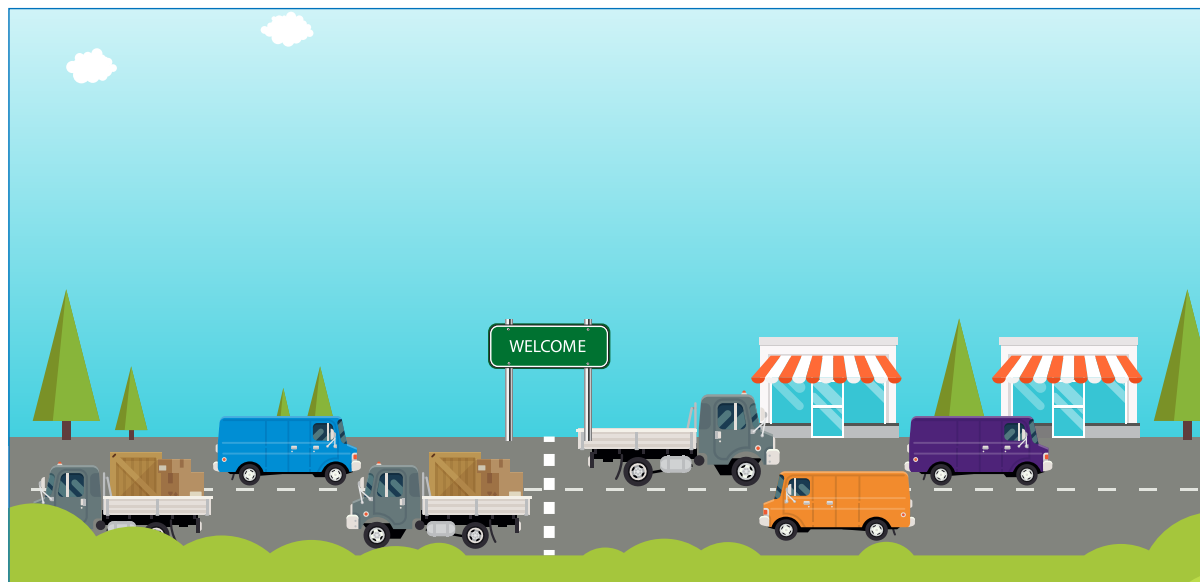
Methodology: EPS

Overview	<p>EPS is a research system which collects 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 the countries of study</p> <ul style="list-style-type: none"> • EPSs were conducted by independent market research agencies (e.g. Nielsen, and MSIIntelligence) in 4 countries included in this report. The surveys are commissioned by PMI and the sampling plan is designed by the agencies in conjunction with PMI 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. The size of collection plan depends on the amount of population centres and the proportion of total population that this covered. 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
Process	<p>EPSs rely purely on physical evidence, avoiding the variability of consumer bias in interview-based methods</p> <ul style="list-style-type: none"> • The independent market research agencies randomly collect empty packs of any brand and market variant from streets and easy access bins • Homes and workplaces are not visited and the collection route specifically excludes sports stadia, shopping malls and stations, or any other locations where non-domestic incidence is likely to be skewed and unrepresentative of the population • Once packs are collected, they are sorted by manufacturer and brand, with the number of packs with domestic and 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 the country of origin is labelled unspecified • Packs of brands trademark-owned by PMI are sent to the manufacturer for analysis to determine which are genuine and which are counterfeit. Only PMI can determine this, based on inks, paper and other characteristics. Where there are clear mistakes and design flaws on brands from other manufacturers, counterfeit is also included • KPMG used the results of the EPSs to extrapolate overall consumption in each market • The process is repeated across all countries where EPSs are conducted using the flows model as discussed above

EPS	Explanation	Method	Countries where adjusted
Brand adjustment	Marlboro was over-sampled and therefore re-weighted according to its domestic share	A weighting was applied according to the market share to make the domestic sample equate to the market share. The non-domestic sample was re-weighted by the same factor	Algeria, Libya, Morocco and Tunisia
Cigarette consumption	Explanation	Method	Countries where adjusted
Libya 2014 consumption assumption	There was no available EPS data for Libya in 2014 to estimate the cigarette consumption	The difference in the adult population of Libya from 2014 to 2015 was used in order to estimate the consumption level of 2014 based on the total consumption in 2015	Libya

Non-domestic legal analysis and assumptions

Illustrative example of ND(L) by brand approach



Non-domestic legal analysis

Approach	<ul style="list-style-type: none"> Our approach was to model the volume of cigarettes that were legally brought into each country as a result of cross border tourism
Methodology	<ul style="list-style-type: none"> Travel data from the World Tourism Organization (UNWTO)⁽¹⁾ was used to calculate the number of trips made by travellers over the age of 18 This was combined with the smoking prevalence and the proportion of the population of smoking age to give total overseas trips by smokers in the year 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 PMI^{(2)(a)} It was assumed that the number of packs purchased per trip is equal to the legal import allowance per person The EPS and Maghreb Flows model form the basis of all non-domestic analysis. As a result, where the ND(L) calculation was greater than 100% of the ND flow calculated by the Maghreb Flows model it is capped at the ND volume One exception is when non-domestic product is found in the EPS from a higher priced market. In this case, the entire ND inflow is considered to be legal
Validation tools	<ul style="list-style-type: none"> ND(L) outputs were discussed with local management to establish that results appeared reasonable given their understanding of the market
Limitations	<ul style="list-style-type: none"> Although KPMG believes the ND(L) analysis outlined is the most robust available given data and time constraints, there are limitations to this method The analysis assumes smokers will bring back their maximum permitted volume of cigarettes. Smokers who travel to another country may not bring back any cigarettes, or may bring back more than the legal limit This approach gives no breakdown of the brands that are purchased when abroad

Note: ^(a) In the absence of PMI CAST prevalence data for a market, alternative sources such as Euromonitor, World Health Organisation and the Tobacco Atlas were used instead

Sources: ⁽¹⁾ UNWTO Tourism Factbook, 2015 and 2016

⁽²⁾ PMI CAST data

Illicit Whites analysis

Illicit Whites brand flows represented 83% of total C&C consumption in the Maghreb region in 2016

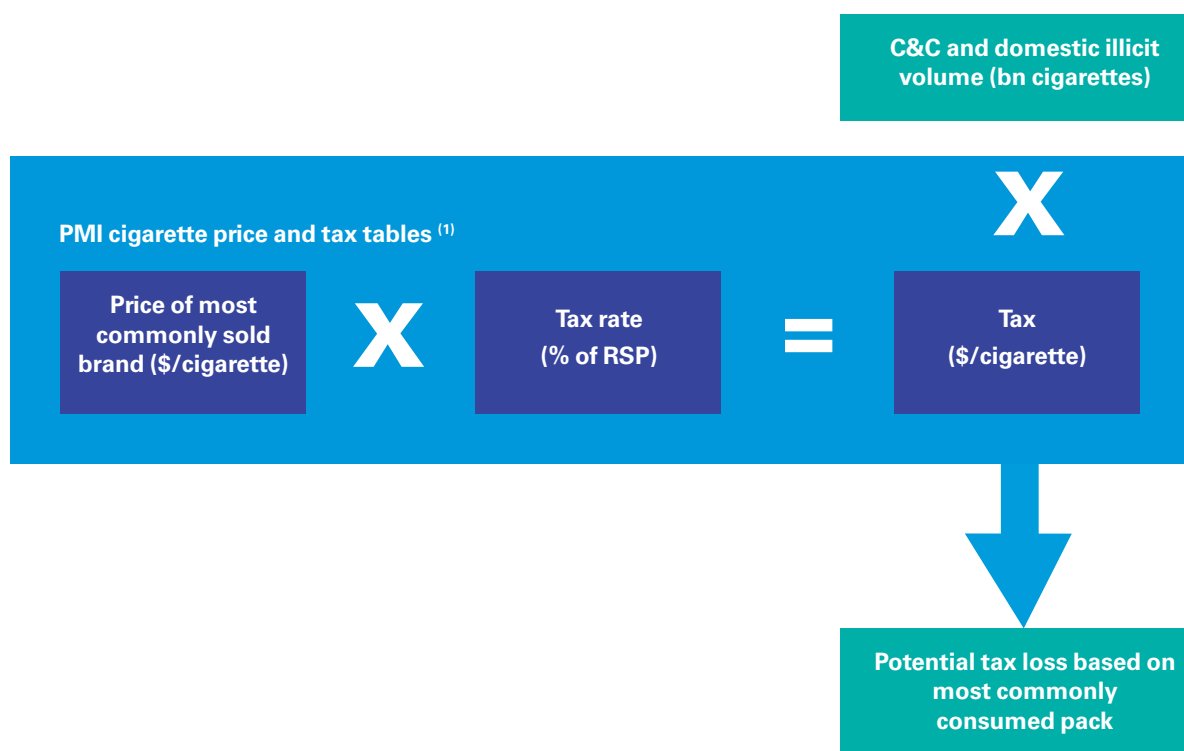
- Illicit Whites are defined as
 - *Cigarettes that are usually produced legally in one country/market but which the evidence suggests are smuggled across borders during their transit to the destination market under review where they have limited or no legal distribution and are sold without payment of tax*
- KPMG undertook the following analysis to determine which brands made up Illicit Whites brand flows:
 - Brand inflows into a particular country were compared to the Reported domestic sales (per IMS) data for that market
 - Brand inflows were also compared to the Reported domestic sales (per IMS) for the country of origin as indicated by the labelling and recorded in the EPS
 - Where no legal distribution was identified in those markets, the brand inflow was considered to be an Illicit White flow. Checks were also made on a regional basis to determine any wider legal distribution
 - Illicit White inflows were typically large volumes with no country specific labelling. All of the cigarettes identified with fraudulent labelling were also Illicit Whites brands
- 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 PMI, we cannot assess whether these flows are genuine or counterfeit

Total tax loss estimate

Tax losses are calculated to estimate the tax revenue that would have been gained had the volume of C&C and domestic illicit cigarettes consumed been legally purchased in that country

- The calculation shown below was performed for each country within the study
 - Cigarette price and tax tables as provided by PMI were used to determine the price of the most commonly consumed brand in the latest version available
 - This is then multiplied by the tax rate (as a % of the retail sales price of that pack)
 - The resultant tax take (per cigarette) is multiplied by the combined C&C and domestic illicit consumption volumes for that country per the Maghreb Flows Model to estimate the total potential tax loss based on the most commonly consumed brand by country
- Total tax losses for Algeria, Morocco and Tunisia based on the most commonly consumed brand were estimated to be \$367mn in 2016^(a)
- 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

Maghreb Flows Model⁽²⁾



Note: ^(a) In 2016, an estimated US\$198mn were lost in customs and import related tariffs in Libya.

Source: ⁽¹⁾ PMI cigarette price and tax tables as at October 2016

⁽²⁾ KPMG Maghreb Flows Model and analysis of data sources provided by PMI

RUSI methodology

The sections of this study offered by RUSI draw on research conducted for the purposes of this report on illicit trade in the Maghreb region. The research focused on the goods most commonly smuggled, trends in smuggling activity, as well as the incentives and enabling factors driving illicit trade. It also examined responses to illicit trade across the region, and their impact on those engaged in smuggling in particular locations. In examining these issues, the researchers sought to gain both a regional overview of illicit trade, as well as a more granular understanding of how this plays out at particular national borders.

It must be noted that the analysis focuses on illicit trade, understood as the unlawful production, transportation or sale of otherwise legal commodities. It does not consider in detail trafficking in illegal goods such as drugs and arms, or shifts in such trafficking activities over time. As such, the analysis provides only a partial picture of the wider range of criminality and insecurity playing out across the region.

Nor does the analysis cover illicit trade in all its dimensions, throughout the entirety of the Maghreb region. Given restrictions in space and scope, the analysis instead considers five particular national border contexts, providing brief 'snapshots' of illicit trade across them. The focus of these case studies is on two national contexts: Libya and Algeria. In the case of Libya, the analysis considers illicit trade across two key national borders: those with Tunisia and Niger. In the case of Algeria, the analysis covers smuggling activity across the country's borders with Mali, Morocco and

Tunisia. This focus on selected borders is crucial: illicit trade, like its licit counterpart, is both highly location-specific, and susceptible to change over time in line with local political, social and economic dynamics.

The methodology was divided into two phases. The first phase comprised a review of academic literature, government policy documents, law-enforcement strategies and private-sector reports on illicit trade across the region. In the second phase, researchers conducted semi-structured interviews with experts from industry, academia and law enforcement active in the region. At both stages, where research related to the illicit cigarette trade, researchers provided input to KPMG on the context to the levels of C&C detected in the quantitative analysis.

The outcomes of this research are presented in various sections throughout the report. Specifically, the research is presented in the Executive Summary on pages 5 and 6, in the country sections on pages 19, 24, 29 and 34, and in the chapter 'RUSI Analysis: Illicit Trade in Cigarettes and Other Diverted Products in the Maghreb' on pages 35-44. The RUSI chapter provides, first, a regional outline of the commodities commonly smuggled, the incentives and enablers of smuggling activity and the outlook in terms of emerging trends and responses. The chapter continues with the border case studies described above, providing a brief 'snapshot' of each in turn.

Methodology: EPS results tables by country

Algeria EPS results by region, 2016⁽¹⁾

Algeria	Number of packs	ND incidence	ND incidence as per adjusted weighting
Billion cigarettes	2016	2016	2016
Algiers	1900	1.1 %	1.0 %
Annaba	380	1.3 %	1.5 %
Batna	700	0.9 %	0.9 %
Bechar	200	0.0 %	0.0 %
Bejaia	580	0.3 %	0.5 %
Biskra	460	2.4 %	2.6 %
Blida	640	0.5 %	0.6 %
Bordj Bou Arreridj	400	0.5 %	0.5 %
Chlef (El Asnam)	640	0.3 %	0.3 %
Constantine	600	0.3 %	0.3 %
Djelfa	680	0.6 %	0.7 %
Oran	920	0.3 %	0.4 %
Ouargla (Wargla)	200	1.5 %	1.8 %
Setif	940	0.3 %	0.4 %
Sidi Bel Abbes	380	0.3 %	0.2 %
Skikda	560	1.4 %	1.7 %
Souk Ahras	280	1.1 %	1.3 %
Tebessa	400	2.5 %	2.8 %
Tiaret (Tihert)	540	0.0 %	0.0 %
Tlemcen (Tilimsen)	600	0.0 %	0.0 %
Total	12000	0.7 %	0.8 %

Libya EPS results by region, 2016⁽¹⁾

Outflows from Algeria	Number of packs	ND incidence
Region	2016	2016
Banghazi	800	92.8 %
Misratah	600	94.5 %
Sebha	300	95.0 %
Tripoli	1000	93.2 %
Zawiya	300	95.0 %
Total	3000	93.6 %

Source: ⁽¹⁾ EPS 2016

Methodology: EPS results tables by country

Morocco EPS results by region, 2016^{(1)(a)}

Morocco	Number of packs	ND incidence	ND incidence as per adjusted weighting
Region	2016	2016	2016
Agadir	642	2.2%	2.3%
Ait Melloul	242	0.4%	0.3%
Beni Mellal	302	11.3%	12.5%
Casablanca	5466	9.8%	10.8%
El Jadida	268	7.9%	9.2%
Fes	1756	5.9%	5.5%
Inezgane	210	1.0%	1.1%
Kenitra	666	3.9%	4.0%
Khemisset	196	3.1%	3.0%
Khouribga	308	8.4%	9.3%
Ksar El Kebir	200	19.5%	22.7%
Larache	200	49.5%	53.3%
Marrakech	1526	0.7%	0.6%
Meknes	870	7.5%	7.2%
Mohammedia	350	17.5%	18.9%
Nador	234	53.4%	50.6%
Oujda	744	75.7%	74.1%
Rabat	1152	5.6%	5.1%
Safi	528	1.5%	1.5%
Sale	1410	5.5%	5.1%
Settat	216	16.3%	17.7%
Tanger	1242	30.9%	34.5%
Taza	260	7.3%	7.8%
Temara	418	4.1%	4.1%
Tetouan	594	24.2%	26.9%
Total	20000	12.4%	12.5%

Tunisia EPS results by region, 2016⁽¹⁾

Tunisia	Number of packs	ND incidence	ND incidence as per adjusted weighting
Region	2016	2016	2016
Ariana	1710	20.4%	19.7%
Sfax	1884	31.2%	30.8%
Sousse	1230	39.6%	38.9%
Tunis	5176	23.5%	23.2%
Total	10000	26.4%	26.0%

Note: ^(a) The Western Sahara area is not sampled in this report, therefore it is displayed as a separate entity throughout the report (except in Morocco where the Moroccan customs study did include the area), to be consistent with the methodology applied in other countries

Source: ⁽¹⁾ EPS 2016

Travel flows assumptions - Algeria

Algeria						
Country of origin	ND ⁽¹⁾	Price assumption	Price in Algeria	Travellers ⁽²⁾	Total ND(L) (bn)	C&C ⁽¹⁾
Asia Pacific Duty Free	0.003	Higher Priced	\$1.91	141001	0.003	-
Egypt Duty Free	0.001	Lower Priced	\$1.91	30942	0.001	-
France	0.002	Higher Priced	\$1.91	All flows are legal	0.002	-
France Duty Free	0.009	Higher Priced	\$1.91	All flows are legal	0.009	-
Italy	0.003	Higher Priced	\$1.91	All flows are legal	0.003	-
Latin America & Canada Duty Free	0.001	Higher Priced	\$1.91	All flows are legal	0.001	-
South Asia Duty Free	0.002	Lower Priced	\$1.91	3660	-	0.002
Spain Duty Free	0.012	Higher Priced	\$1.91	All flows are legal	0.012	-
Tunisia	0.003	Higher Priced	\$1.91	2442537	0.003	-
Unspecified	0.163		\$1.91	-	-	0.163
WW DF	0.026		\$1.91	779121	0.014	0.012

Sources: ⁽¹⁾ KPMG Maghreb Flows Model 2016

⁽²⁾ KPMG analysis of WTO data 2016

Travel flows assumptions - Libya

Libya						
Country of origin	ND ⁽¹⁾	Price assumption	Price in Libya	Travellers ⁽²⁾⁽³⁾	Total ND(L) (bn)	C&C ⁽¹⁾
Egypt Duty Free	0.077	Lower Priced	\$2.46	251135	0.018	0.059
EU DF	0.002	Higher Priced	\$2.46	700	0.002	-
GCC Duty Free	0.007	Lower Priced	\$2.46	16419	0.001	0.006
Iraq	0.225	Higher Priced	\$2.46	700	-	0.225
Lebanon Duty Free	0.119	Lower Priced	\$2.46	3819	-	0.119
North Africa Duty Free	0.012	Lower Priced	\$2.46	912939	0.012	-
Unspecified	4.795		\$2.46		-	4.795
WW DF	1.259		\$2.46	345450	0.027	1.232

Sources: ⁽¹⁾ KPMG Maghreb Flows Model 2016

⁽²⁾ KPMG analysis of WTO data 2016

⁽³⁾ Travel in Libya, Euromonitor International, October 2015

Travel flows assumptions - Morocco

Morocco						
Country of origin	ND ⁽¹⁾	Price assumption	Price in Morocco	Travellers ⁽²⁾	Total ND(L) (bn)	C&C ⁽¹⁾
Africa Duty Free	0.001	Lower Priced	\$3.38	44775	0.001	0.000
Algeria	1.255	Lower Priced	\$3.38	171811	0.012	1.242
Asia Pacific Duty Free	0.001	Higher Priced	\$3.38	148243	0.001	-
Egypt	0.002	Lower Priced	\$3.38	57796	0.002	-
EU DF	0.006	Higher Priced	\$3.38	All flows are legal	0.010	-
France	0.001	Higher Priced	\$3.38	All flows are legal	0.001	-
France Duty Free	0.004	Higher Priced	\$3.38	All flows are legal	0.004	-
GCC Duty Free	0.003	Lower Priced	\$3.38	446149	0.003	-
Israel Duty Free	0.001	Higher Priced	\$3.38	All flows are legal	0.001	-
Italy	0.001	Higher Priced	\$3.38	All flows are legal	0.001	-
Italy Duty Free	0.004	Higher Priced	\$3.38	All flows are legal	0.004	-
Latin America & Canada Duty Free	0.001	Higher Priced	\$3.38	All flows are legal	0.001	-
Mauritania	0.135	Lower Priced	\$3.38	43373	0.001	0.134
North Africa Duty Free	0.009	Lower Priced	\$3.38	128207	0.007	0.001
Spain	0.004	Higher Priced	\$3.38	All flows are legal	0.004	-
Spain Duty Free	0.006	Higher Priced	\$3.38	All flows are legal	0.010	-
Syria	0.001	Similar Priced	\$3.38	4942	0.0002	0.001
Turkey Duty Free	0.003	Higher Priced	\$3.38	157048	0.003	-
Unspecified	0.516		\$3.38	0	-	0.516
WW DF	0.032		\$3.38	35361097	0.023	0.008

Sources: ⁽¹⁾ KPMG Maghreb flows model 2016

⁽²⁾ KPMG analysis of WTO data 2016

Travel flows assumptions - Tunisia

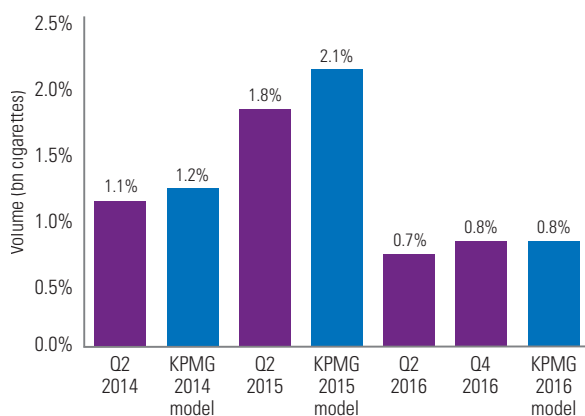
Tunisia						
Country of origin	ND ⁽¹⁾	Price assumption	Price in Tunisia	Travellers ⁽²⁾	Total ND(L) (bn)	C&C ⁽¹⁾
Africa Duty Free	0.002	Lower Priced	\$2.47	39459	0.002	-
Algeria	0.394	Lower Priced	\$2.47	2442537	0.210	0.186
Argentina	0.001	Lower Priced	\$2.47	-	-	0.001
Asia Pacific Duty Free	0.003	Higher Priced	\$2.47	36386	-	-
Burkina Faso	0.001	Lower Priced	\$2.47	All flows are legal	-	0.001
EU DF	0.009	Higher Priced	\$2.47	All flows are legal	0.009	-
France	0.001	Higher Priced	\$2.47	All flows are legal	0.001	-
France Duty Free	0.004	Higher Priced	\$2.47	All flows are legal	0.004	-
GCC Duty Free	0.002	Higher Priced	\$2.47	All flows are legal	0.002	-
Iraq	0.009	Higher Priced	\$2.47	1439	-	0.009
Italy	0.004	Higher Priced	\$2.47	All flows are legal	0.004	-
Italy Duty Free	0.004	Higher Priced	\$2.47	All flows are legal	0.004	-
Ivory Coast	0.001		\$2.47	All flows are legal	-	0.001
Jordan Duty Free	0.001	Higher Priced	\$2.47	10160	0.001	0.001
Lebanon Duty Free	0.004	Lower Priced	\$2.47	11439	0.001	0.004
Libya	0.007	Similar Priced	\$2.47	All flows are legal	0.007	-
Mauritania	0.001	Lower Priced	\$2.47	13895	-	-
North Africa Duty Free	0.027	Lower Priced	\$2.47	126908	0.006	0.020
Saudi Arabia	0.008	Similar Priced	\$2.47	82078	0.005	0.003
South Africa Duty Free	0.002	Lower Priced	\$2.47	4451	-	0.001
Turkey Duty Free	0.004	Higher Priced	\$2.47	All flows are legal	0.004	-
Ukraine	0.002	Lower Priced	\$2.47	1148	-	0.002
Unspecified	4.396		\$2.47	0	-	4.396
WW DF	0.120		\$2.47	15838417	0.117	0.002

Sources: ⁽¹⁾ KPMG Maghreb flows model 2016

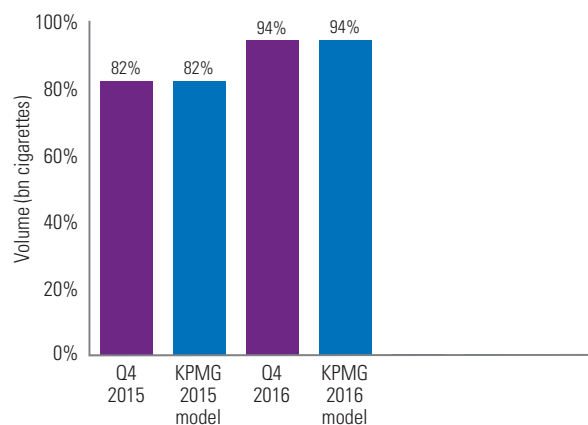
⁽²⁾ KPMG analysis of WTO data 2016

KPMG and PMI estimates of the share of non-domestic cigarettes in the Maghreb

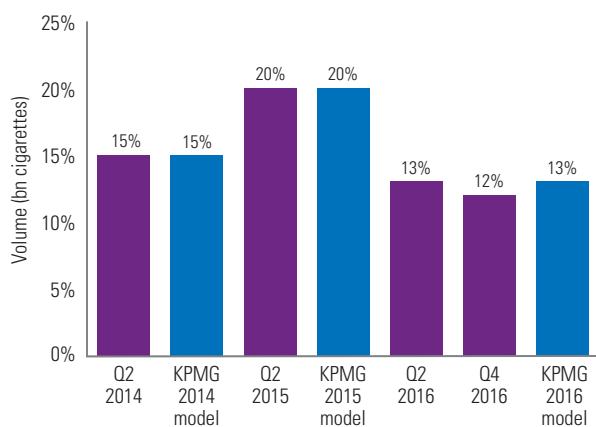
Algeria⁽¹⁾⁽²⁾



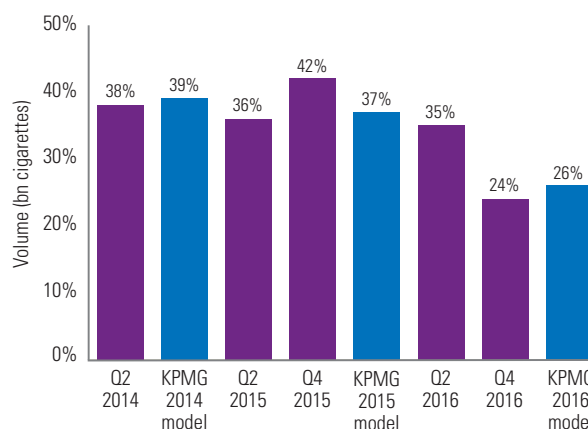
Libya⁽¹⁾⁽²⁾



Morocco⁽¹⁾⁽²⁾



Tunisia⁽¹⁾⁽²⁾



Sources: ⁽¹⁾ KPMG Maghreb flows model 2016

⁽²⁾ EPS 2014, 2015 and 2016

Project Scope

Scope of work

Our work will cover the following elements:

1. **Executive summary:** Highlights of main key facts ascertained during the report, including countries of study, total volume and percentage of Counterfeit and Contraband (C&C) in the study, and associated total tax losses and countries with the highest level of C&C consumption, along with key brands and countries of origin
2. **Maghreb overview:** An overview including inflows and outflows and trend analysis, for comparison of country market dynamics; Commentary and analysis on inter-regional illicit cigarette flows; Spotlight on key countries of origin and key brands / trademark owners and Free Trade Zones
3. **Individual country reports:** Analysis and commentary on existing industry and research data on illicit trade; Map showing key country inflows / outflows and price differences between each country; Estimates of total and illicit consumption, ND(L) and annual government tax revenue losses, including trend analysis across periods
4. **Other diverted product analysis:** Qualitative overview of key subsidised commodity flows in the Maghreb, including outflows and intra-regional flows; Qualitative country level analysis including market dynamics and trend analysis, with commentary on the methods, routes, and organised crime groups operating illegal trade in subsidised products (provided by RUSI)
5. **RUSI sub-contracted scope:** KPMG will sub-contract RUSI to deliver:
 - A stand-alone report on illicit trade in cigarettes and 'other diverted products' which will be inserted as a chapter into KPMG's work. In line with PMI's project brief, this section will cover subsidised products such as cereals, gas and sugar. The section will contribute to the report's broader objective of assessing the nature and penetration of illicit trade in Morocco, Algeria, Tunisia and Libya in the years 2014, 2015 and 2016.
 - RUSI will provide qualitative analysis based on desk research and interviews with external subject matter experts from regional and international research institutes, law enforcement agencies and international organisations. This will provide context on the diversion of other products alongside illicit trade in cigarettes in the region.

Approach and Methodology

In order to produce this report, we will:

- Analyse of legal domestic sales data, Empty Pack Surveys and any additional surveys or data points provided are publicly available or provided by PMI.
- Conduct desktop research and analysis of any consumer research provided by PMI.
- Undertake analysis of corroborative data sources and consumption estimates (such as smoking prevalence data from external sources (e.g. WHO) and publicly available reports).
- Conduct one phone interview and one review call with the management team in each country and review of additional data provided.

In order to produce their report, RUSI will undertake the following methodology:

- Qualitative research will be conducted by RUSI, including desk research and phone interviews with experts on the North Africa region. The research will also include information on neighbouring or relevant countries to the region that add insights to the regional trends identified in the study
- RUSI will also use its extensive network of external subject matter experts from regional and international research institutes, law enforcement agencies and international organisations for both interviews and a review of publicly available information

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