BRITISH AMERICAN TOBACCO

An analysis of the potential impacts of revising the minimum excise requirements in the European Tobacco Excise Directive

February 2019

Introduction and terms of reference

An analysis of the possible effects of revising the minimum excise requirement

- Historically, the European Tobacco Excise Directive (TED) has included two minimum excise requirements to prevent Member States from setting cigarette taxes at too low a level.
- Article 10(2) of Council Directive 2011/64/EU is replicated to the right:
- The Europe Commission is conducting a review to consider possible amendments to the TED.
- British American Tobacco asked to conduct an independent analysis of the possible effects of revising the provisions in the TED for the minimum excise level across Member States (MSs).

"From 1 January 2014, the overall excise duty on cigarettes shall represent at least 60% of the weighted average retail selling price of cigarettes released for consumption. That excise duty shall not be less than EUR 90 per 1,000 cigarettes irrespective of the weighted average retail selling price.

However, Member States which levy an excise duty of at least EUR 115 per 1,000 cigarettes on the basis of the weighted average retail selling price need not to comply with the 60 % requirement set out in the first subparagraph."

Analyses of tax and prices increases

We have performed three main exercises to assess the impact of TED changes

- **<u>Current price difference across Member States and the impact of increases in the minimum excise rates</u>**
- We analysed the current disparity of consumer goods prices – including cigarettes - across the Member States
- Scenario 1 models the impact of increases in the minimum excise rates on cigarettes prices within Member States

- **<u>Current cross border flows within Member States and the possible impact of increases in the minimum excise rates</u>**
- We analysed the situation of illicit trade of cigarettes
- We analysed the prices gap between Member States surrounding main Member States affected by illicit trade
- We assessed the impact on Member States of prices increases needed to fight against illicit trade

- **<u>Effects of the removal of the 'escape clause' from the excise duty</u>**
- The "escape clause" allows to ensure that the higher-taxing Member States do not have to constantly raise the excise duty in order to comply with the minimum excise rate rule
- Scenario 2 models the impact of removing this escape clause

Main findings and conclusions

1,

There is no economic rationale for the excise incidence or the excise burden in Euros to be equalised across Member States in a competitive EU Single Market with unimpeded free movement of goods within the Union.

2,

The price of all consumer goods – and the VAT collected on them – varies significantly across the EU.

3,

The price of cigarettes varies across the Single Market in much the same way as the price of other consumer goods. There is, therefore, no reason to believe that the tax system needs to equalise the price of cigarettes.

4,

When the excise on cigarettes is adjusted for income levels or is shown relative to the price of other goods and services, there is <u>much</u> less variability in cigarette taxes across Member States than a comparison of excise in unadjusted Euros might suggest.

5,

An increase in the minimum excise requirement over and above the adjustments seen in the previous revision to the TED will create an undue burden on eastern European Member States and could transform them into the most highly taxed countries in terms of affordability.

6,

Cross-border trade of tobacco products remains negligible. There is no evidence an increase in the minimum excise rates & incidence will have the desired effects.

7,

The removal of the 'escape clause' will not mitigate price differences between Member States.

8,

Any increase in the minimum excise requirement could also exacerbate price differences between European Member States and countries bordering the EU, increasing pressures for illicit trade.

1. There is no economic rationale for the excise incidence or the excise burden in Euros to be equalised across Member States in a competitive EU Single Market with unimpeded free movement of goods within the Union

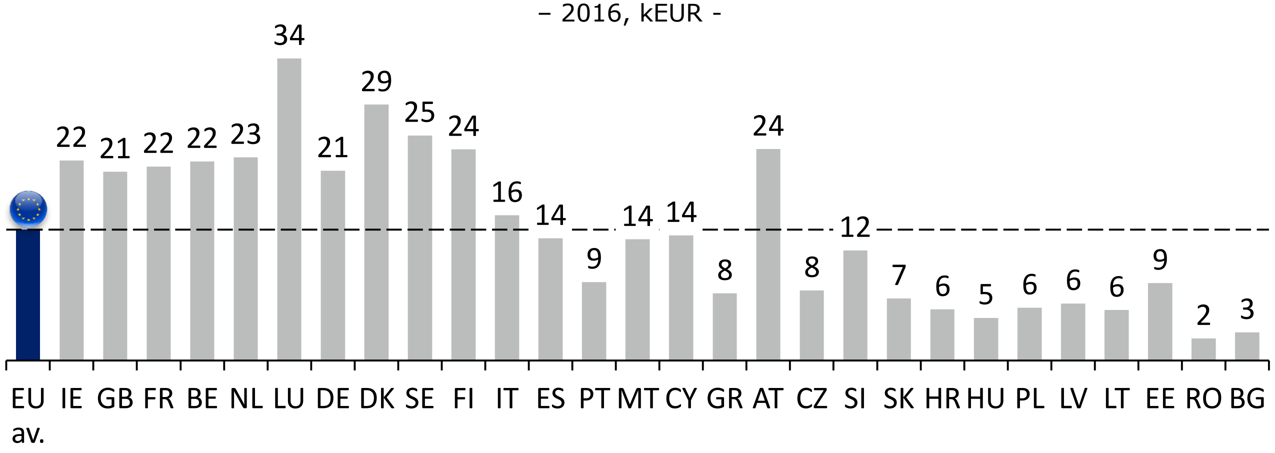
Competition in a 'single market' does not mean prices will be equalised in € across MS

Prices differ due to differences in incomes, costs and competition

- There is no economic rationale for the excise incidence of the excise burden in Euros to be equalised across MSs in a competitive EU Single Market.
- Price differentials across MSs are to be expected, and do not reflect a lack of effective competition across the EU Single Market or an impediment to the free movement of goods within the Union.
- They are the result of differences across the EU in a range of factors including or even inside a MS:
- income levels;
- the cost of production, itself related to income per capita in the production country (wage level, cost of land, cost of utilities etc.);
- differences in taxes (e.g. VAT levels, corporation taxes, etc); and
- local market conditions, including differences in the level of competition, the availability of resources and national capabilities across sectors.

Income per capita across the EU

– 2016, kEUR -



Source: http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=fr&pcode=tec00001&plugin=1

- The chart above shows that income levels in the wealthiest MS are 1,600% higher than in the lowest income MS.
- It will inevitably follow from such large income differentials that one would not expect the price of consumer goods to be equalised across the EU (or the taxes collected on them, including VAT).
- And, for similar reasons, there is no economic logic as to why tax on tobacco in unadjusted €s should be equalised across MSs.

2. The price of all consumer goods – and the VAT collected on them – varies significantly across the EU

The price of all consumer goods varies significantly across the EU (I)

- The price of all consumer goods – and the VAT collected on them – varies significantly across the EU.
- Eurostat's June 2018 assessment of comparative price levels of consumer goods and service across the EU found that the price level index for household final consumption expenditure in Denmark (the Member State in which consumer goods are most expensive) was 192% higher than in Bulgaria, where the price of goods and services were the lowest in the EU (see table, right).
- The same survey found the price level for food and non-alcoholic beverages was 142% higher in the most expensive MS (Denmark) than it was in the MS with the lowest prices (Romania).
- On the following page, we provide further specific examples of consumer products for which there are substantial price differentials across the EU.
- The evidence is clear – a competitive, well functioning, Single Market in the EU does not require prices to be equalised across MSs. Differences in income levels and economic conditions across the Union will always result in very large price differentials. Measures to equalise price levels – and tax levels – across MSs will work against, not support, the functioning of an economic Single Market.

Price level index for food, beverages,clothing and footwear, 2017, EU-28=100

	HFCE	Food and non-alcoholic beverages	Alcoholic beverages and tobacco	Clothing	Footwear
Iceland	166	156	228	171	182
Switzerland	159	168	125	153	121
Norway	143	161	226	129	128
Denmark	**142**	**150**	123	130	**141**
Luxembourg	127	123	91	107	105
Sweden	125	126	127	**134**	129
Ireland	125	117	**174**	108	104
Finland	122	118	139	121	125
United Kingdom	117	93	157	87	91
Netherlands	112	103	109	111	117
Belgium	111	112	104	113	114
France	109	112	105	105	98
Austria	108	125	93	105	105
Germany	105	108	96	105	105
EA-19	103	107	98	104	103
Italy	101	112	97	106	103
Spain	92	95	86	92	98
Cyprus	88	107	88	100	101
Slovenia	85	100	82	97	94
Portugal	85	96	90	98	97
Greece	84	104	95	100	102
Malta	82	110	100	99	102
Estonia	79	94	93	115	113
Latvia	72	95	84	104	106
Slovakia	69	91	72	105	99
Czech Republic	69	86	74	99	93
Croatia	67	96	73	101	97
Lithuania	65	82	80	105	106
Hungary	62	82	70	84	101
Poland	56	65	71	88	83
Montenegro	55	79	63	102	112
Turkey	53	79	77	54	59
Albania	52	75	54	97	89
Romania	52	**62**	69	92	103
Bosnia and Herzegovina	52	75	53	88	87
Kosovo (*)	52	72	59	98	108
Serbia	51	72	52	93	92
Bulgaria	**48**	73	**56**	**80**	**78**
Former Yugoslav Republic of Macedonia	47	58	41	81	87
Variation coefficients:					
EA-19	19.4	10.6	22.7	6.4	7.0
EU-15	14.0	12.6	22.8	11.5	12.1
EU-28	27.6	18.7	27.6	11.9	12.1
All 38	37.1	26.4	43.2	19.2	18.6

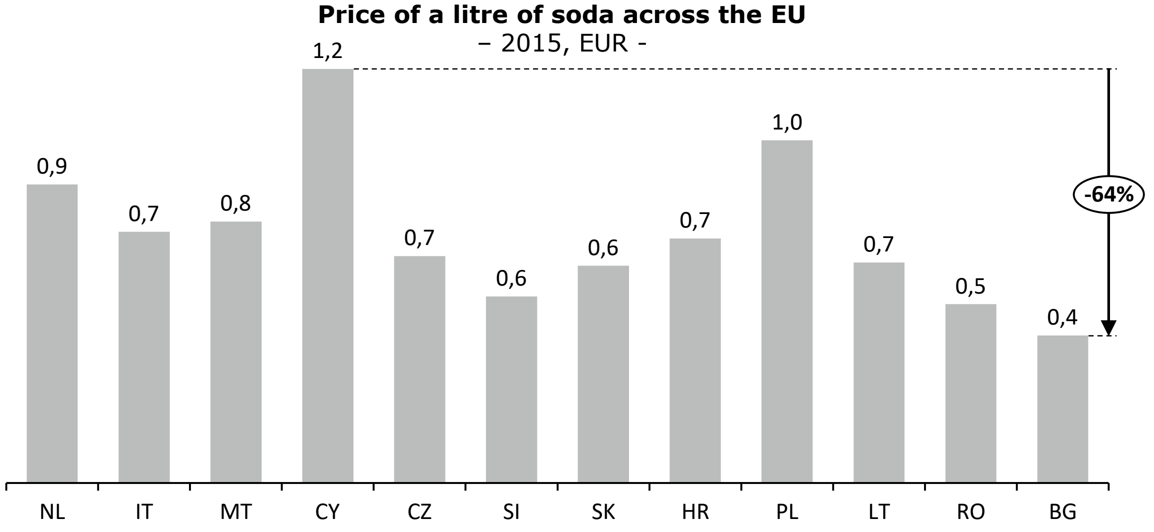
(*) This designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo Declaration of Independence.

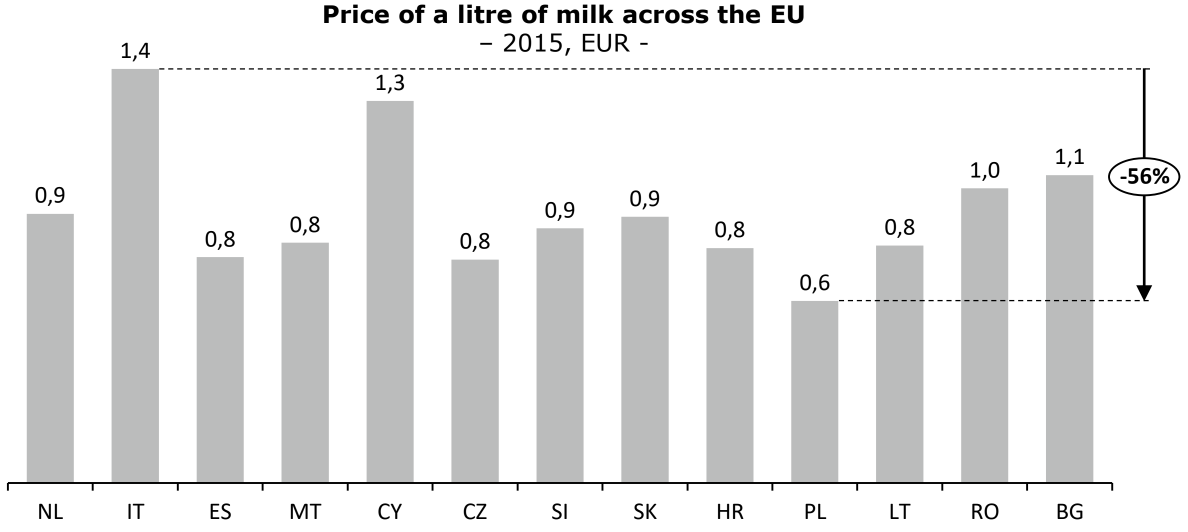
Notes: The shaded fields indicate the highest and lowest PLIs among all 38 participating countries.
The highest and lowest PLIs per product group among the 28 EU Member States are marked in bold.

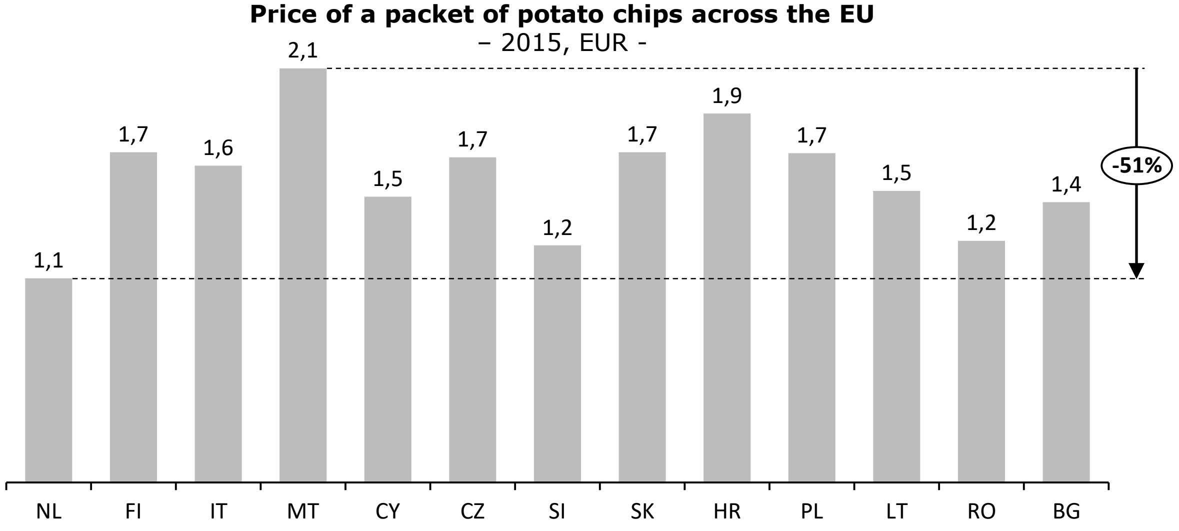
Source: Eurostat (online data code: prc_ppp_ind)

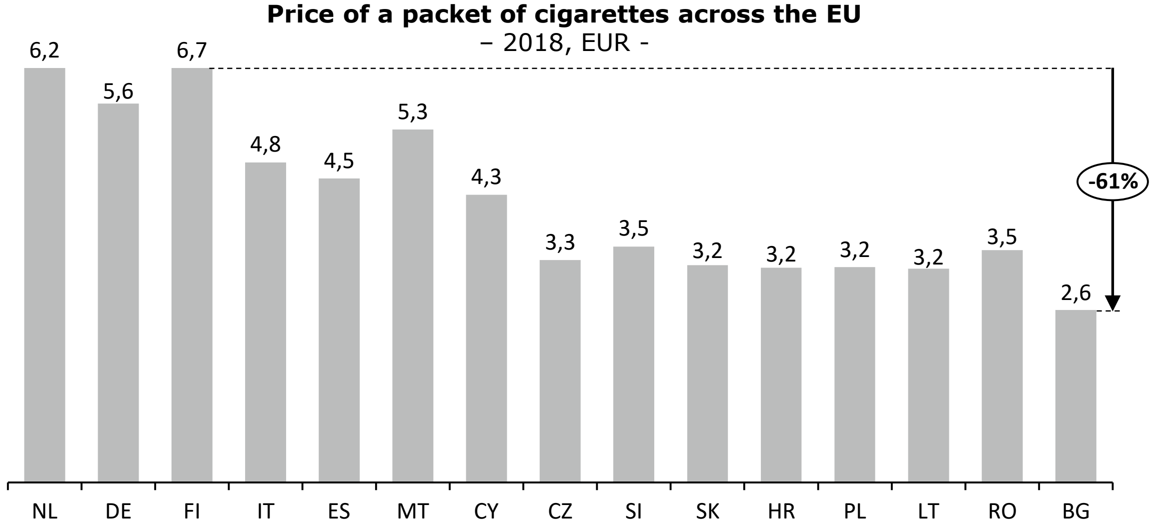
The price of all consumer goods varies significantly across the EU (II)

A selection of examples









Source: Eurostat (http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=prc_dap15&lang=fr), European Commission

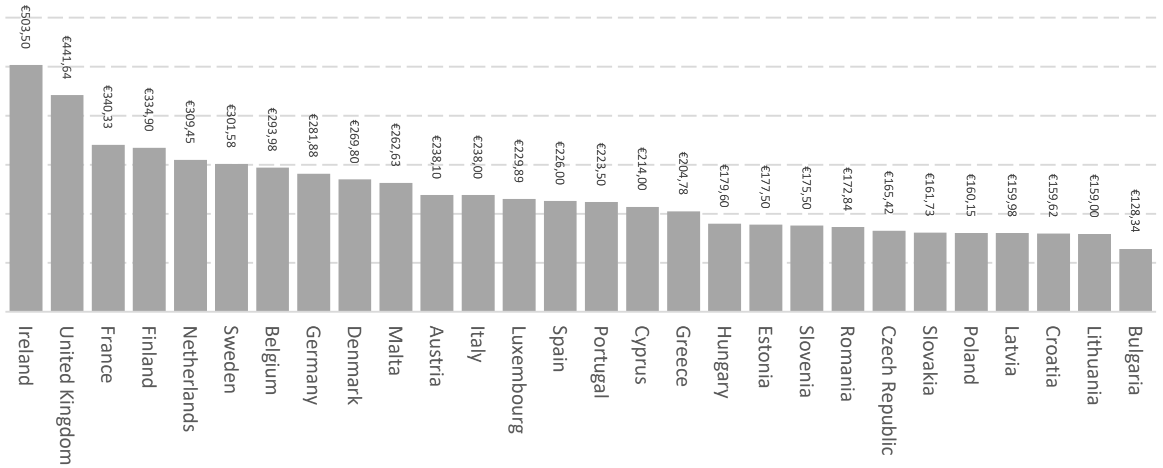
3. The price of cigarettes varies across the Single Market in much the same way as the price of other consumer goods – there is no reason to believe that the tax system needs to equalise the price of cigarettes

The price of cigarettes varies across MSs in line with incomes

- The top right chart shows that the average price of cigarettes in the highest priced Member State, Ireland, is 292% greater than in the lowest priced Member State, Bulgaria.
- This is a greater price variation across Member States, but not unduly so, than the Eurostat's June 2018 estimate of a 192% difference in the prices for household final consumption expenditure across the EU (and, we note, we would not expect the price differentials to be identical for all products across the EU in any event).
- The bottom right chart compares the average price of cigarettes across the EU against income levels in each MS. There is a clear correlation between the two (we calculate the correlation is high, at 70%).
- Cigarettes are priced higher in MSs with higher incomes – in line with what we observe for other consumer goods. There is no more of a clear need to use taxation to close the gap between low and high priced MSs for cigarettes than there is for any other consumer products which display similar price differentials.

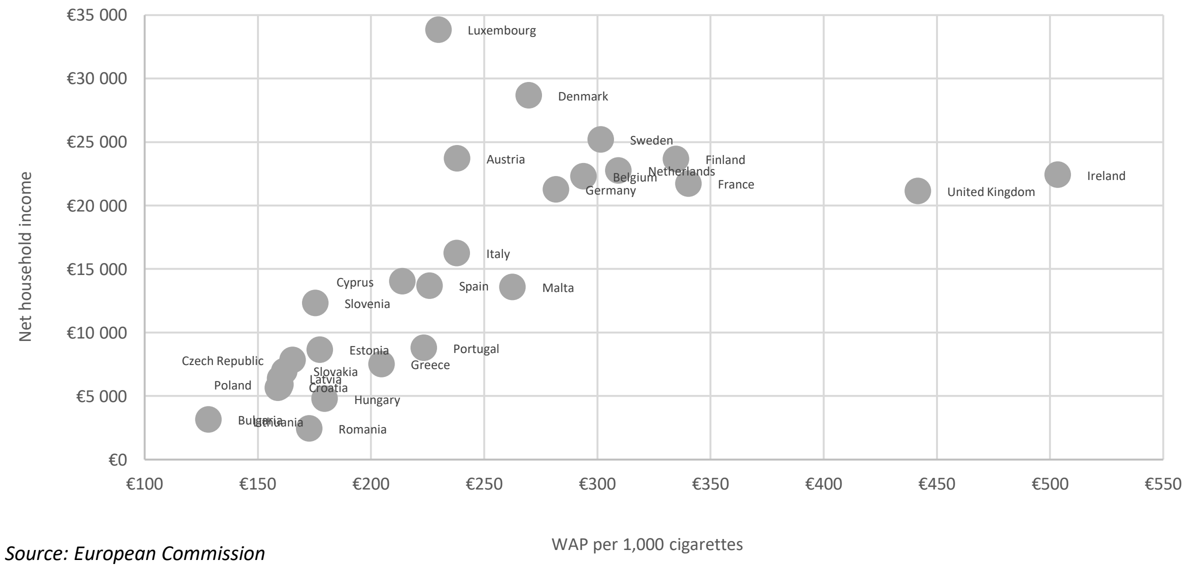
WAP across the EU

– July 2018, EUR per 1000 cigarettes -



Cigarette WAP across the EU vs income levels

– July 2018



Source: European Commission
https://ec.europa.eu/taxation_customs/sites/taxation/files/resources/documents/taxation/excise_duties/tobacco_products/rates/excise_duties-part_iii_tobacco_en.pdf
Eurostat

4. When the excise on cigarettes is adjusted for income levels, or is shown relative to the price of other goods and services, there is much less variability in cigarette taxes across Member States than the excise in unadjusted Euros might suggest

Excise per pack in unadjusted € is an inappropriate measure of tobacco excise across MS (I)

- The top right chart shows that the excise per pack of cigarettes varies significantly across EU MSs as at July 2018.

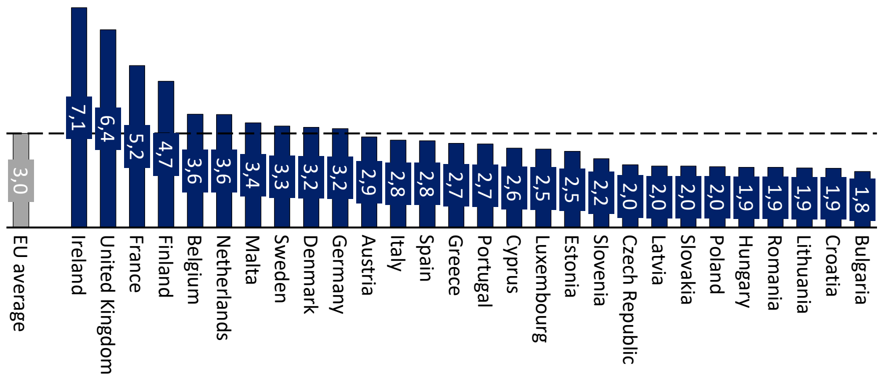
- The excise per pack in Ireland, the highest taxed MS, was four times greater than the excise per pack in the lowest tax MS, Bulgaria.

- However, as the bottom right chart shows, when cigarette excise is expressed in purchasing power parity (PPP) terms – which adjusts for the price of other products and services in each country (essentially making an affordability adjustment in each MS), we get a very different picture.

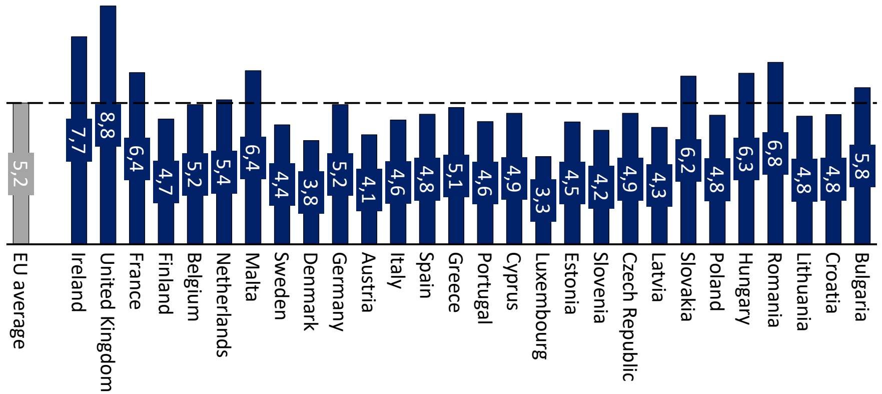
- The MSs in Eastern Europe, which using the unadjusted measure appeared to be taxed at a very low level, are now revealed to tax cigarettes amongst the highest in the EU. For example, Romania is ranked as the MS with the 25th highest cigarette taxes in Euros. But after the PPP adjustment, it has the 3rd highest cigarette taxes in the Union. Bulgaria goes from having the lowest cigarette taxes to the 8th highest in the EU. And Hungary from 24th in the rankings to the 6th.

- For the same reasons that it is misleading to compare unadjusted prices for any products or services across MSs, so it is to compare tax levels on cigarettes. It is the affordability of cigarette taxes by MSs that matters – not just the straight levels.

Excise per pack of cigarettes across the EU
– 2018, unadjusted EUR -



Excise per pack of cigarettes across the EU in PPP terms
– 2018, EUR PPP -



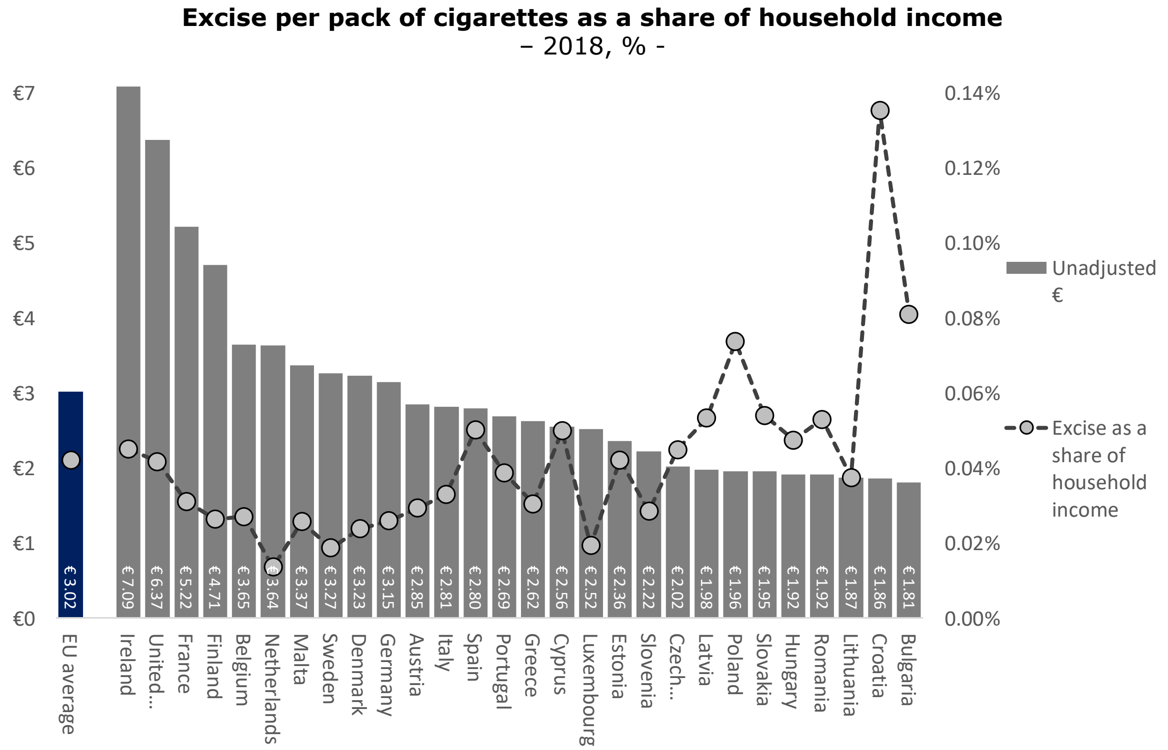
Excise per pack in unadjusted € is an inappropriate measure of tobacco excise across MS (II)

- Adjusting cigarette taxes for PPPs takes into account each country's average price level and compares the cigarette tax level to it. An alternative way to consider the affordability of cigarette taxes across MSs is to compare them directly to income levels across countries. This adjustment is made in the chart.

- Again, it is apparent that cigarette excises in what appear to be the lowest taxed MSs are actually amongst the highest in the Union when considered relative to what people earn.

- In a recent paper by Nargis, Stoklosa, Drope, Fong, Quah, Driezen, Shang, Chaloupka, Hussain (2018), the authors state that: "The affordability of tobacco products is widely recognised as an index for evaluating progress in tobacco taxation …" Although the authors' focus was on low and middle income countries, the point applies to comparing tax rates across high and lower income MSs in the EU.

- What these examples show is that comparing tobacco tax levels in €s across MSs is close to a meaningless exercise. It reveals nothing about the tax revenue raising capability from one MS to another and it is not the correct measure when it comes to matters of tobacco control. Instead, measures of the affordability of tobacco taxes are more relevant for both economic and social considerations.



5. An increase in the minimum excise requirement over and above the adjustments seen in the previous revision to the TED will create an additional burden on eastern European Member States

Scenarios of tax and prices increases

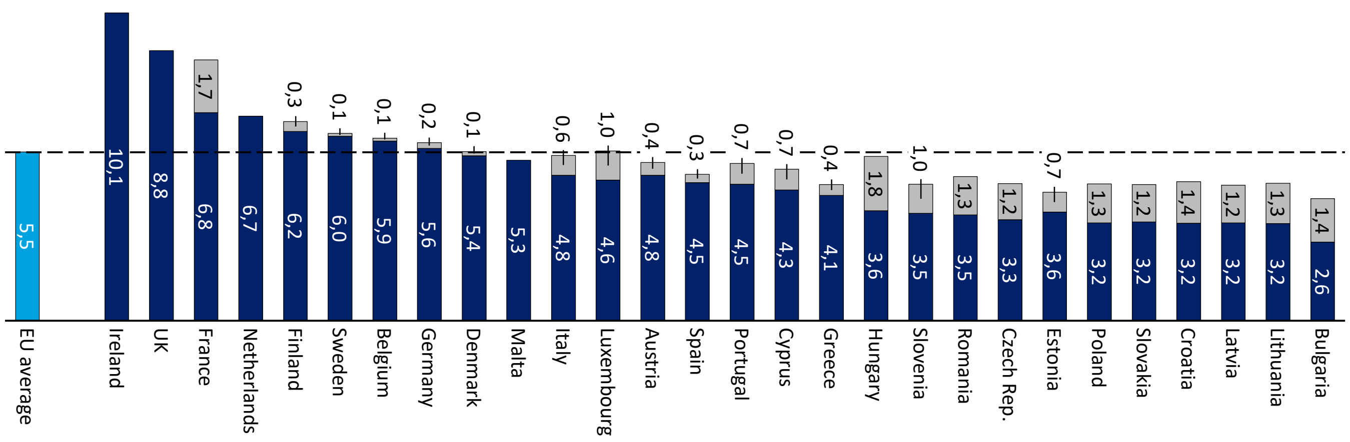
Scenario 1 models impacts of increases in the minimum excise rates on cigarette affordability

- In Scenario 1 we assume (i) the minimum excise increases to €150 per 1,000 sticks (excise level levied in Germany and Italy) and (ii) the escape clause continues to be applied.
- The detailed scenarios are shown in the table.
- We estimate the resulting prices in each MS by assuming the pre-tax component of prices remains constant. We believe this is a reasonable assumption since it is generally accepted that cigarette excise tax increases are at least fully passed on to the end consumer.
- In the pages that follow, we explain what this will do to cigarette affordability by MS.

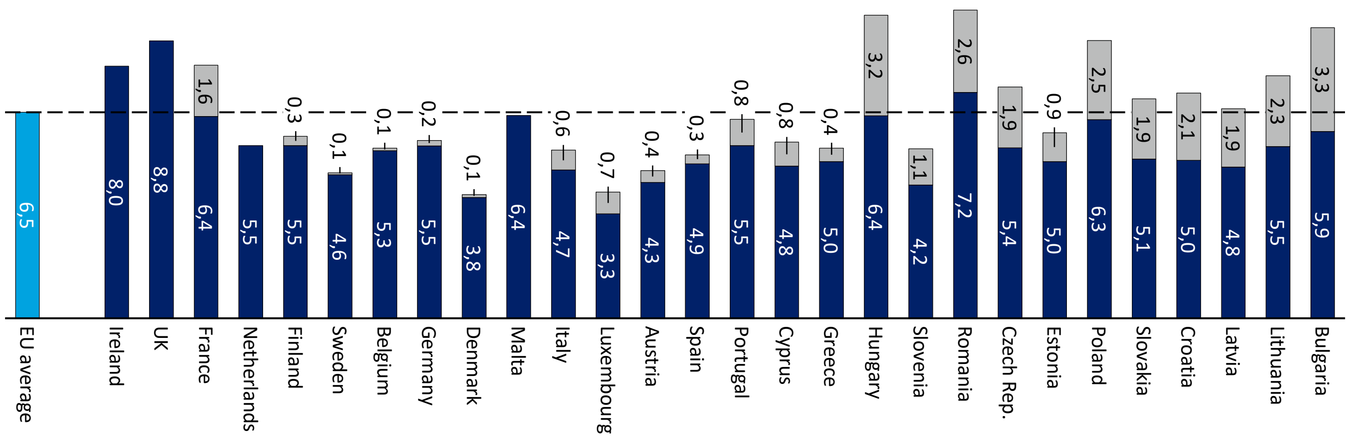
		Today	**Scenario 1**	
			Δ vs today	Excise rates
Minimum Total excise	% of WAP (incidence)	60%	+3%	63%
	Minimum excise €/’000	90	+ €60	150
	Exit clause (for incidence)	115	+ €52	167
Specific (% of total tax incl. VAT)	Min	7.5%	-	7.5%
	Max	76.5%	-	76.5%

Increasing the minimum excise requirement by a larger amount than previously will create a burden that will mostly concern lower income MSs

Impact of scenario 1 on WAP per pack vs. 2018
– 2018, EUR -



Impact of scenario 1 on WAP PPP per pack vs. 2018
– 2018, EUR -

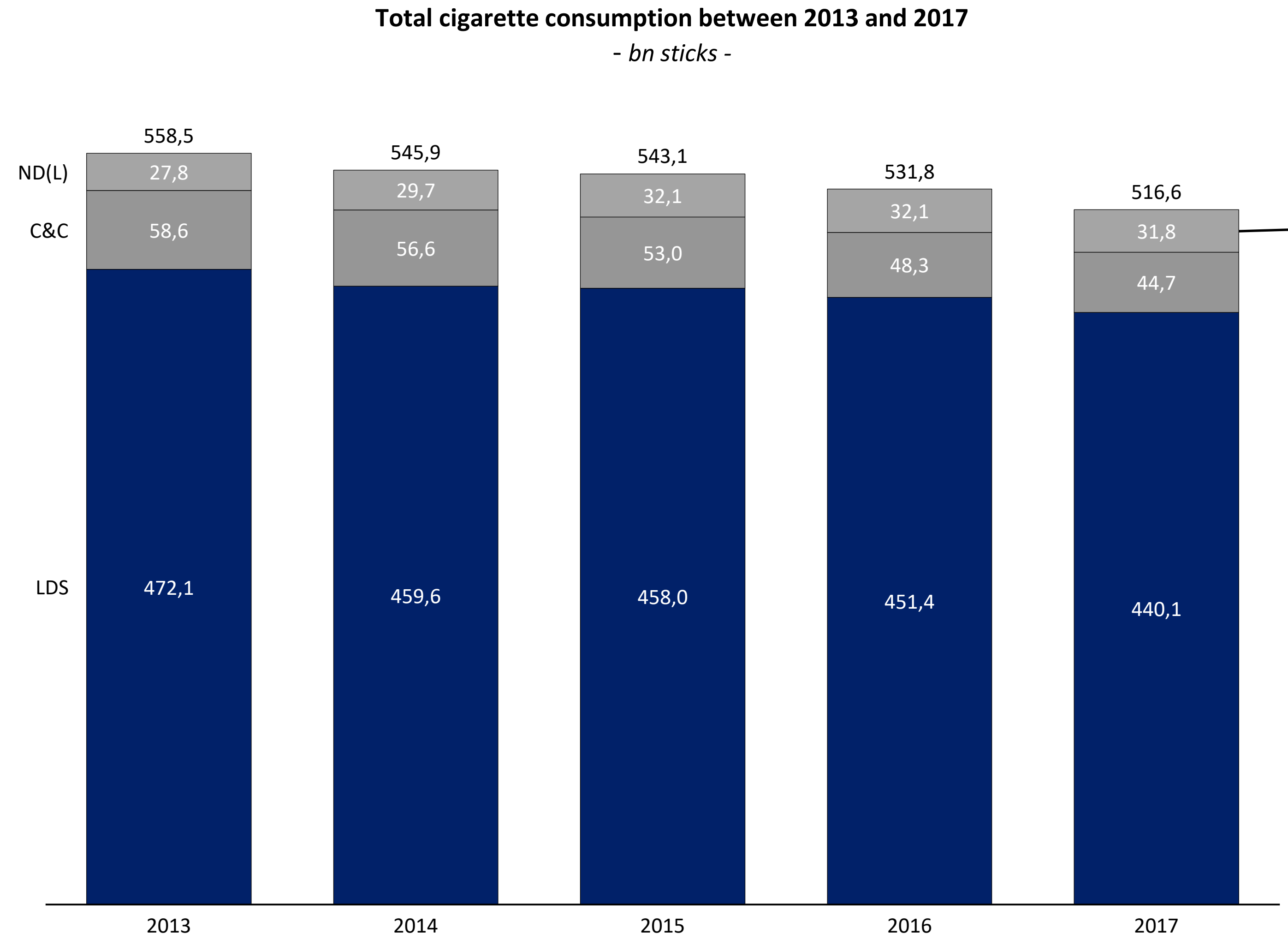


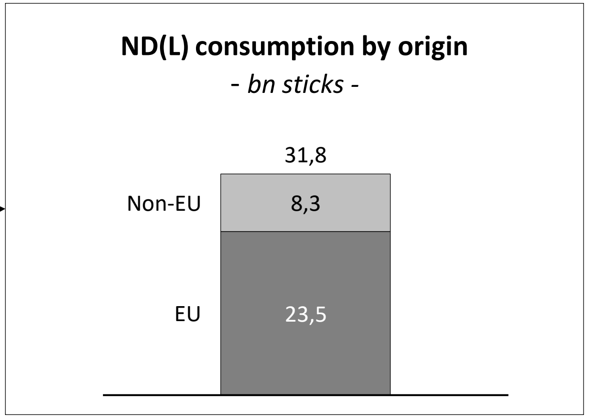
Source: European Commission

- Under Scenario 1, where the minimum excise requirement will increase from the current €90 / 1,000 sticks to €150 / 1,000 sticks.
- Because the measure would bring Eastern European excises (unadjusted) up to the levels seen in more highly taxed MSs, Western European countries will be largely unaffected.
- When we look at the data in PPP terms – the bottom left chart – we see that cigarette taxation in a number of the lower income Eastern European countries reaches a level at or above the most highly taxed MSs in the Union.
- This means that any measures to increase the minimum excise requirement of Eastern European MSs closer to the EU average will, in terms of tax affordability, leave their cigarette consumers the most stretched in the whole of the EU. This is not amongst the stated objectives of the TED.
- Further, it cannot be ruled out this could impact competition in the EU, which should be carefully analyzed beforehand.

6. Cross-border trade of tobacco products remains negligible. There is no evidence an increase in the minimum excise rates & incidence will have the desired effects.

Non-domestic Legal (ND(L)) flows between MSs account for only 4.5% of the total consumption within the EU

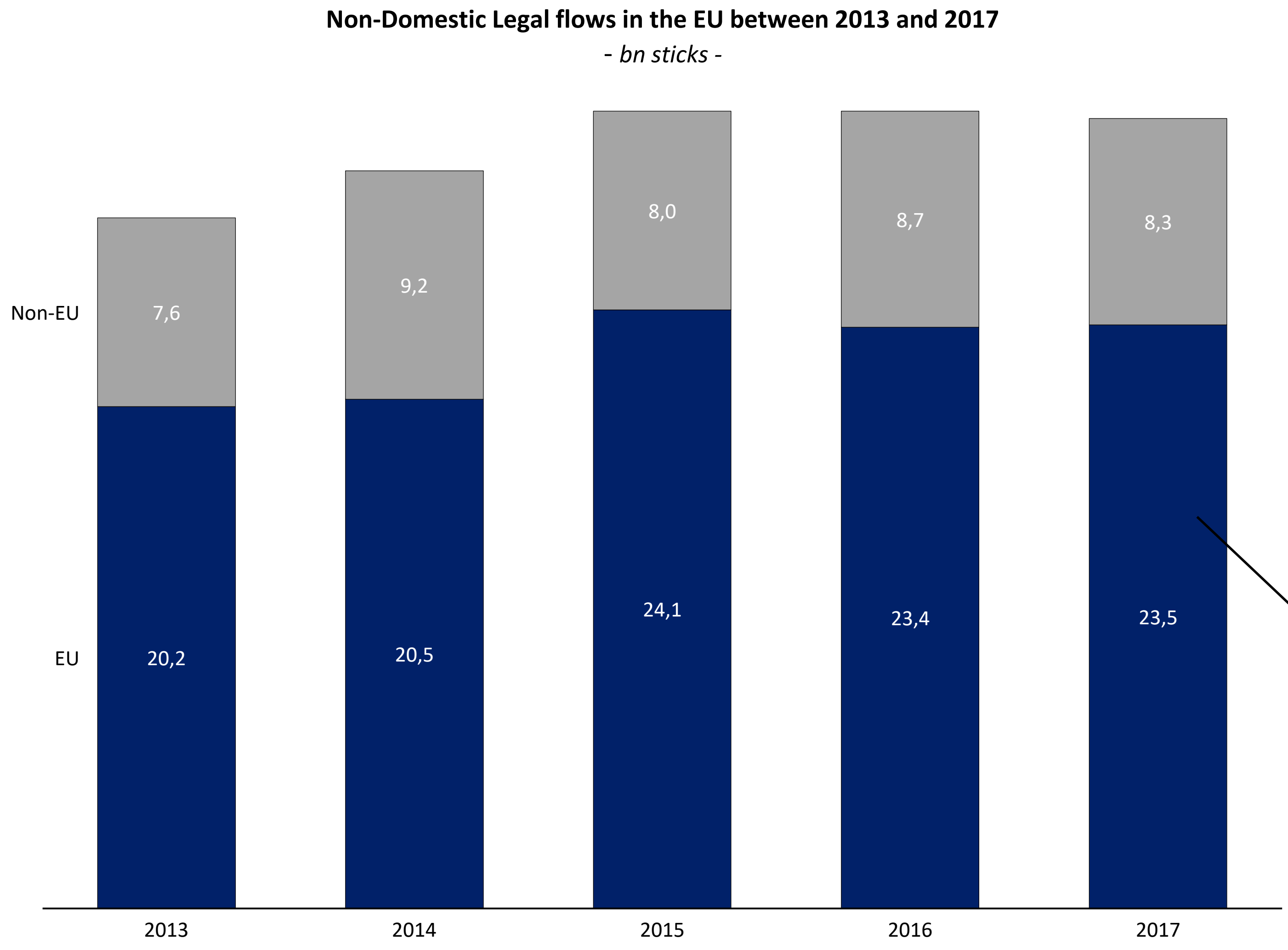




- 8.7% of total cigarette consumption in the EU is Counterfeit and Contraband (C&C).
- 6.2% of consumption is Legal Non-Domestic (ND(L)).
- ND(L) purchases are made from even the highest priced MSs
    - 3.7% of Legal Domestic Sales (LDSs) in IE are outflows
    - 1% of LDSs in FR and the UK are outflows

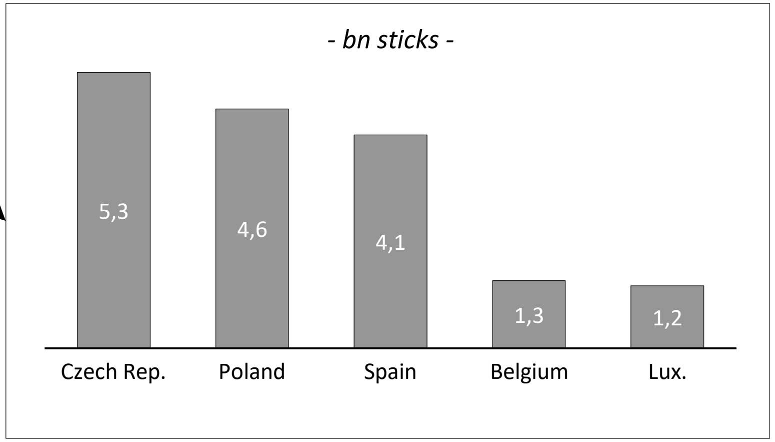
Note: ND(L) are cigarettes brought into the market legally by consumers, mainly as a result of travel flows.
Source: KPMG Project Sun, 2017 results

Non-domestic Legal (ND(L)) remained stable supported by high level travel volumes between countries

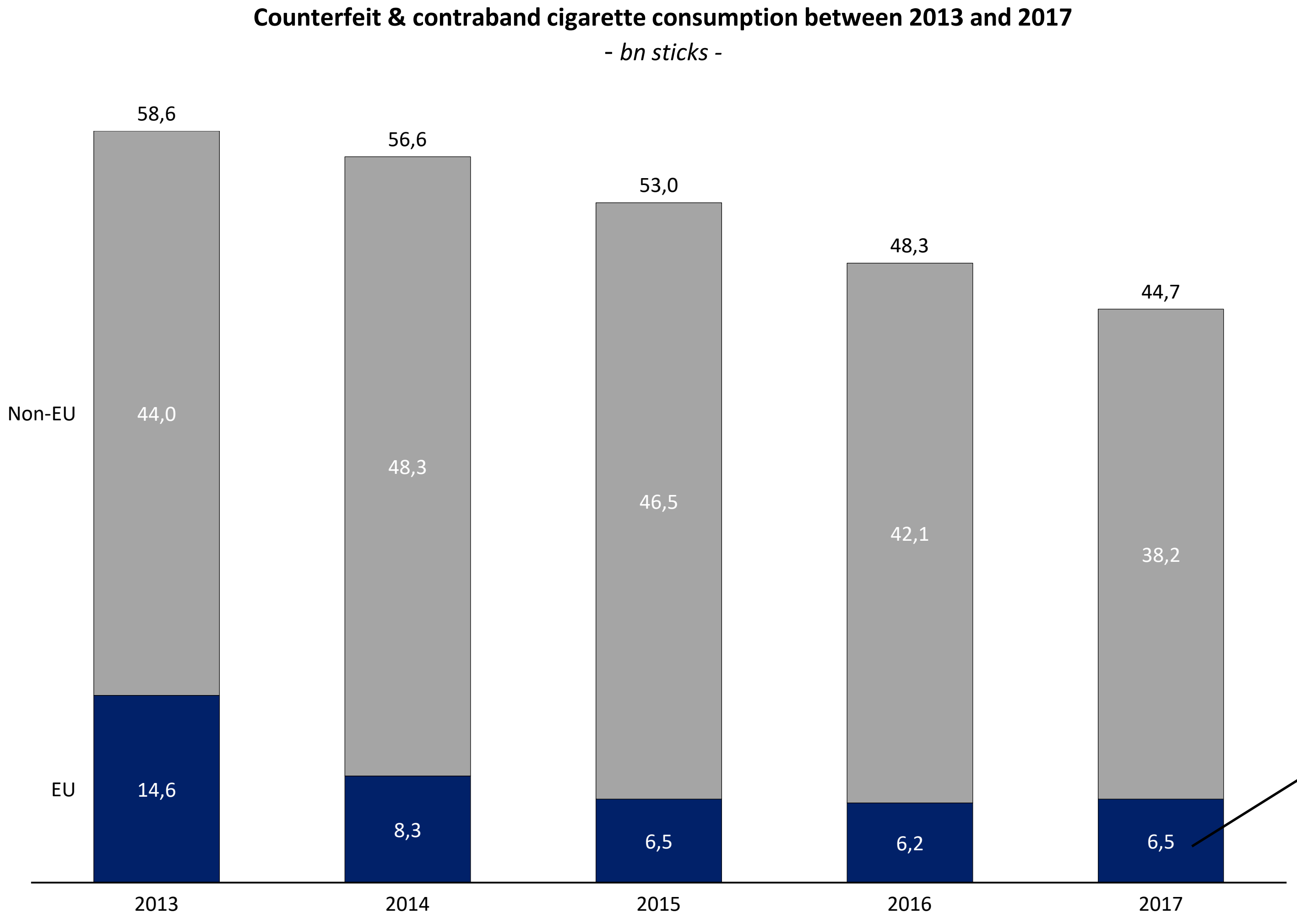


Source: KPMG Project Sun, 2017 results

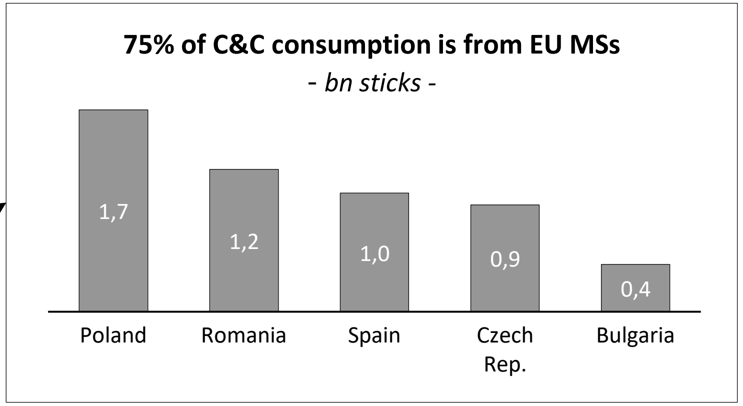
- ND(L) represents cigarettes that are purchased and transferred legally from one country to another, mainly as a result of travel flows and price differences
- Major flows come from within the EU where there are price differences, mainly from Czech Republic and Poland to Germany.
- At the same time countries of the East border like Czech Republic and Poland are impacted from the inflow of non-EU countries, likely to be due to the differential price.



Cigarettes bought in one MS and sold illegally in another (i.e. EU sourced C&C) account for only 1% of the total EU consumption

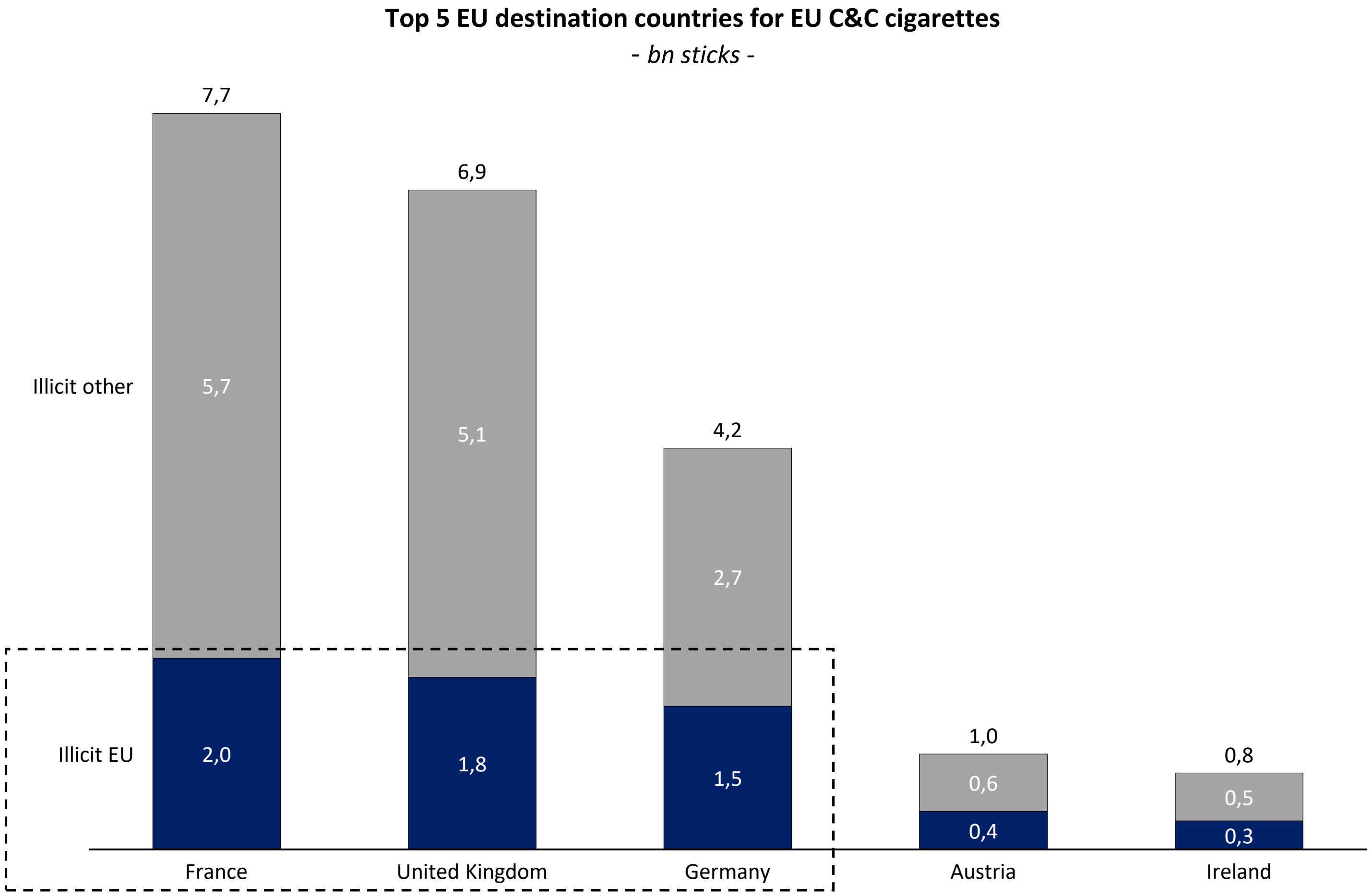


- 44.7 bn sticks (8.7% of total cigarette consumption) in the EU is C&C
- 38.2 bn C&C sticks (85% of C&C cigarette consumption) are sourced from outside the EU
- Only 6.5 bn C&C sticks (15% of all C&C cigarette consumption) are sourced from within the EU …
- … three-quarters of which are from PL, RO, ES, and CZ.



Source: KPMG Project Sun, 2017 results

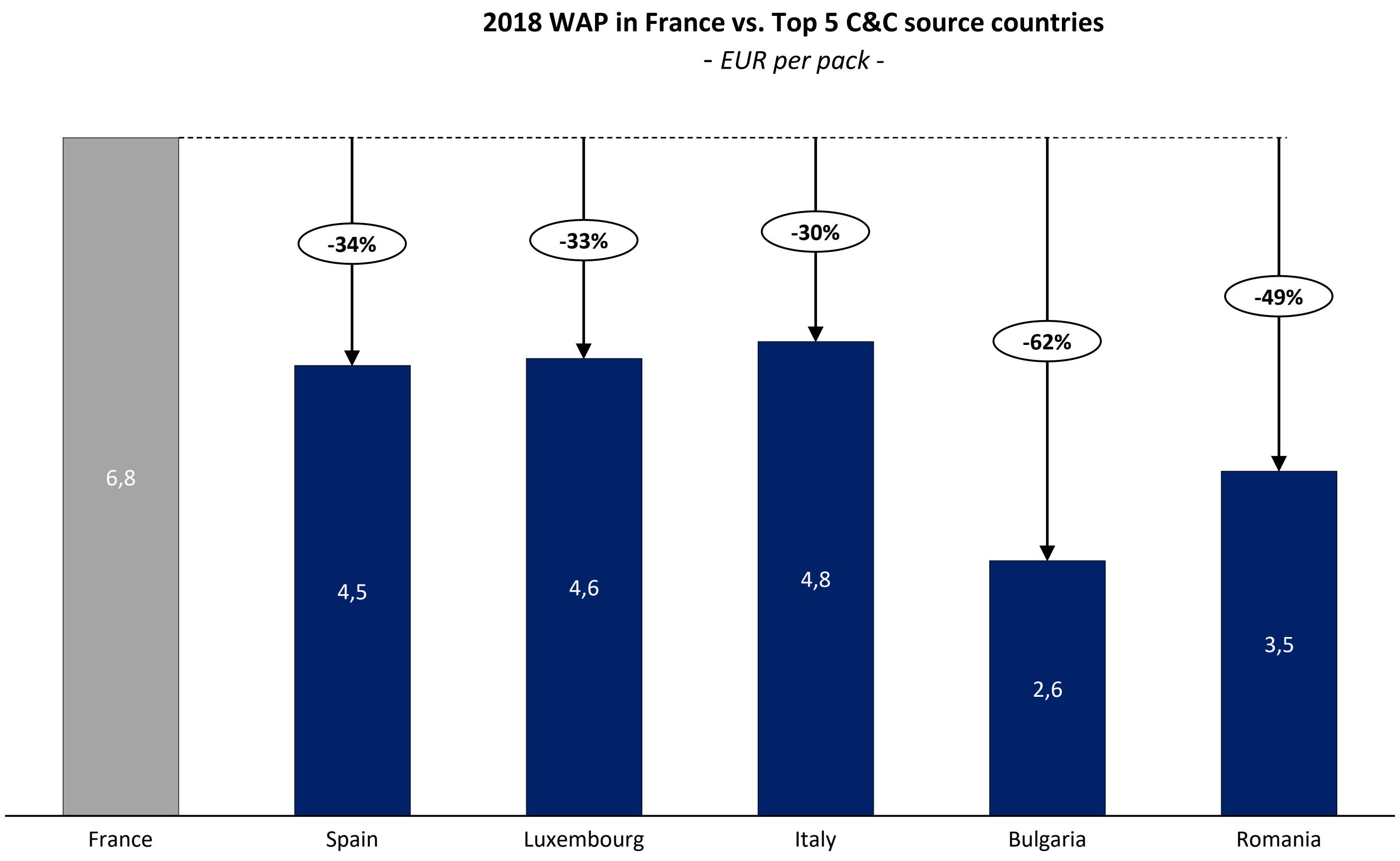
C&C cigarettes sourced from within the EU are a fraction of the overall problem, even in MSs with the highest C&C consumption



- The majority of illicit EU cross-border consumption of cigarettes from other MSs is in France, the UK, and Germany
- In France, 2bn sticks (26% of all C&C cigarettes consumed in the country) are from other EU MSs, which is 3.4% of total consumption
- In the UK, 1.8 bn sticks (26% of all C&C cigarettes consumed in the country) are from other EU MSs, which is 4.7% of total consumption
- In Germany, 1.5 bn sticks (36% of all C&C cigarettes consumed in the country), are from other EU MSs which is 1.7% of total consumption

Source: KPMG Project Sun, 2017 results

The price gap between France and the source of EU C&C

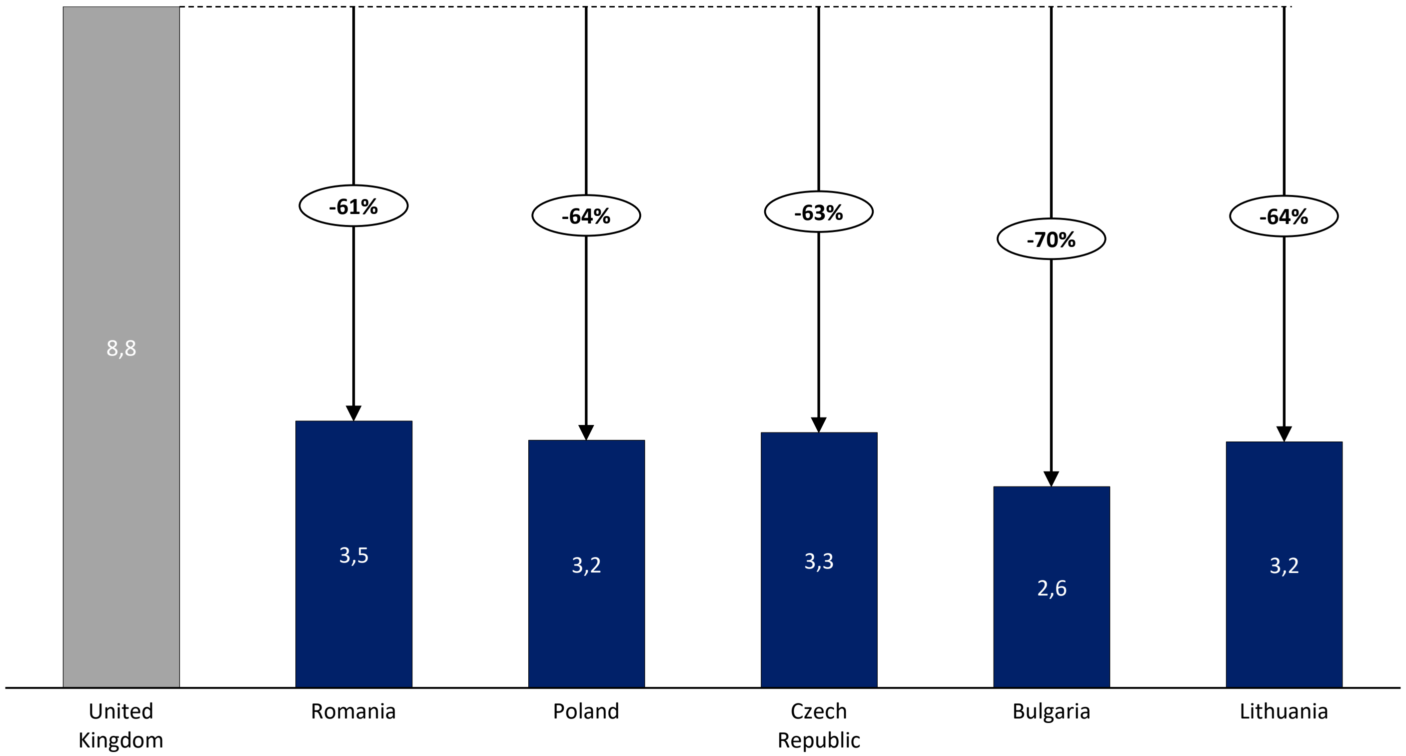


- Intra-EU C&C occurs when criminals are able to buy duty-paid cigarettes in one MS and sell them at a higher price in another MS.
- France has the highest inflow of EU C&C of all the MSs.
- The top 5 EU sources for C&C cigarettes consumed in France are: Spain, Luxembourg, Italy Bulgaria, and Romania.
- The average price difference of duty-paid cigarettes in France and these countries ranges between -62% and -30%.

Source: European Commission Excise Duty Tables, July 2018

The price gap between the UK and the source of EU C&C

2018 WAP in the UK vs. Top 5 C&C source countries
- EUR per pack-



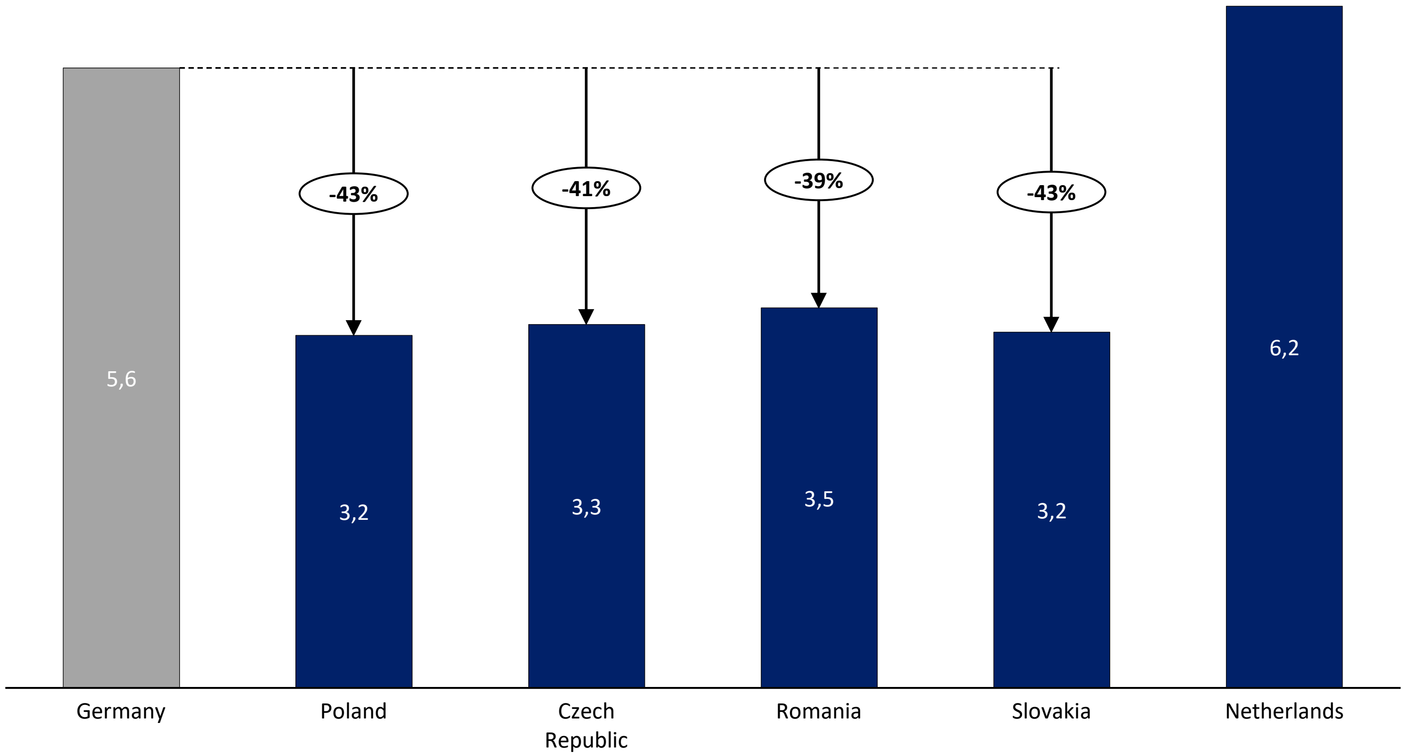
- The inflow of C&C cigarettes from other MSs is second largest in the UK.
- The top 5 EU sources for C&C cigarettes consumed in the UK are: Romania, Poland, the Czech Republic, Bulgaria, and Lithuania.
- The average price difference of duty-paid cigarettes in the UK and these countries ranges between -70% and -61%.

__Source__: European Commission Excise Duty Tables, July 2018

The price gap between Germany and the source of EU C&C

2018 WAP in Germany vs. Top 5 C&C source countries

- EUR per pack -



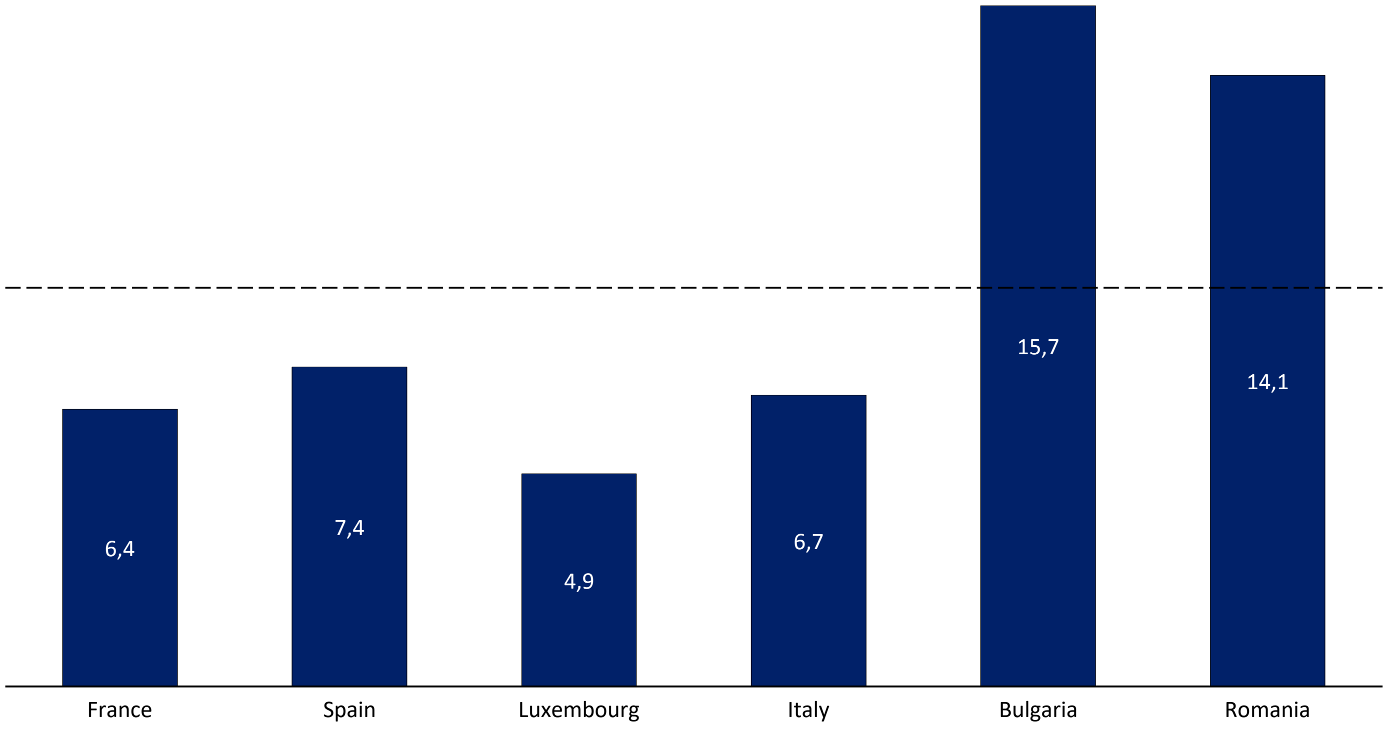
- The inflow of C&C cigarettes from other MSs is third largest in Germany.
- The top 5 EU sources for C&C cigarettes consumed in Germany are: Poland, the Czech Republic, Romania, Slovakia, and the Netherlands.
- The average price difference of duty-paid cigarettes in Germany and these countries ranges between -43% and -39%.

<u>Source</u>: European Commission Excise Duty Tables, July 2018

Closing the price gap between France and the countries from which C&C cigarettes are sourced would have a disproportionate effect on cigarette prices in PPP terms in Bulgaria and Romania

Top 5 C&C source countries at WAP in France in PPP terms

- EUR per pack-

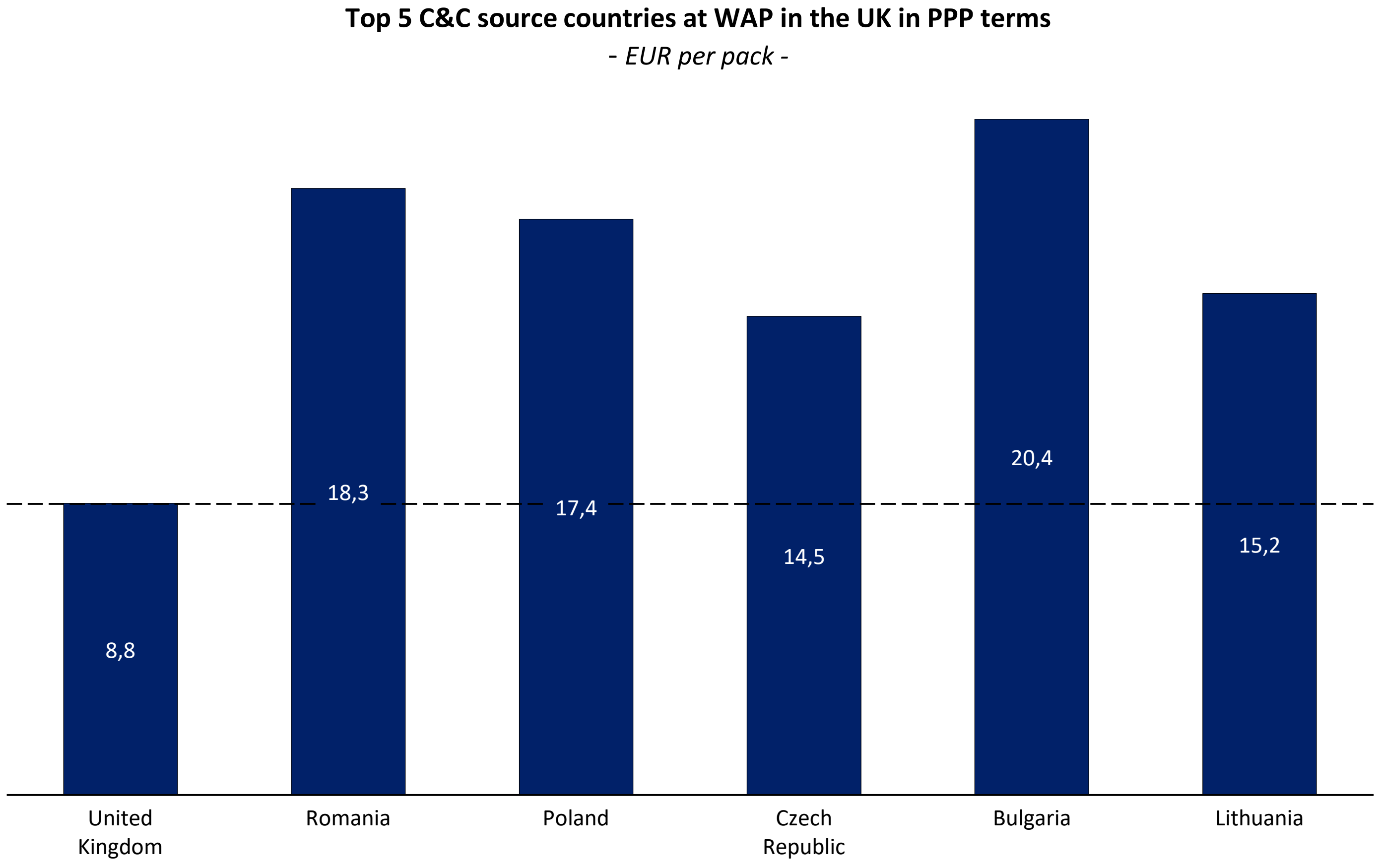


<u>Source</u>*: Europan Commission Excise Duty Tables, July 2018; Eurostat*

- As explained earlier in this presentation, there is no economic rationale for the price of any goods or services to be equalised across MSs in Euros.
- Rather, the price of goods and services tends to vary across MSs in line with consumer incomes and a range of other economic variables (e.g. the nature of competition in each market).
- There is no reason to expect cigarette prices to be any different.
- It is inevitable, therefore, that any attempt to equalise cigarette prices across MSs in Euros will create significant discrepancies in the affordability of cigarettes across MSs.
- The chart shows that any attempt to equalise the price in the countries from which C&C cigarettes consumed in France are sourced with French cigarette prices would result in a disproportionate burden on duty-paid cigarette consumers in Bulgaria and Romania.

➔ **This, in and of itself, would represent a major distortion brought about wholly by the tax system being used to solve what is, in practice, a negligible problem.**

Closing the price gap between the UK and the countries from which C&C cigarettes are sourced would have a disproportionate effect on cigarette prices in PPP terms in a number of Eastern European MSs



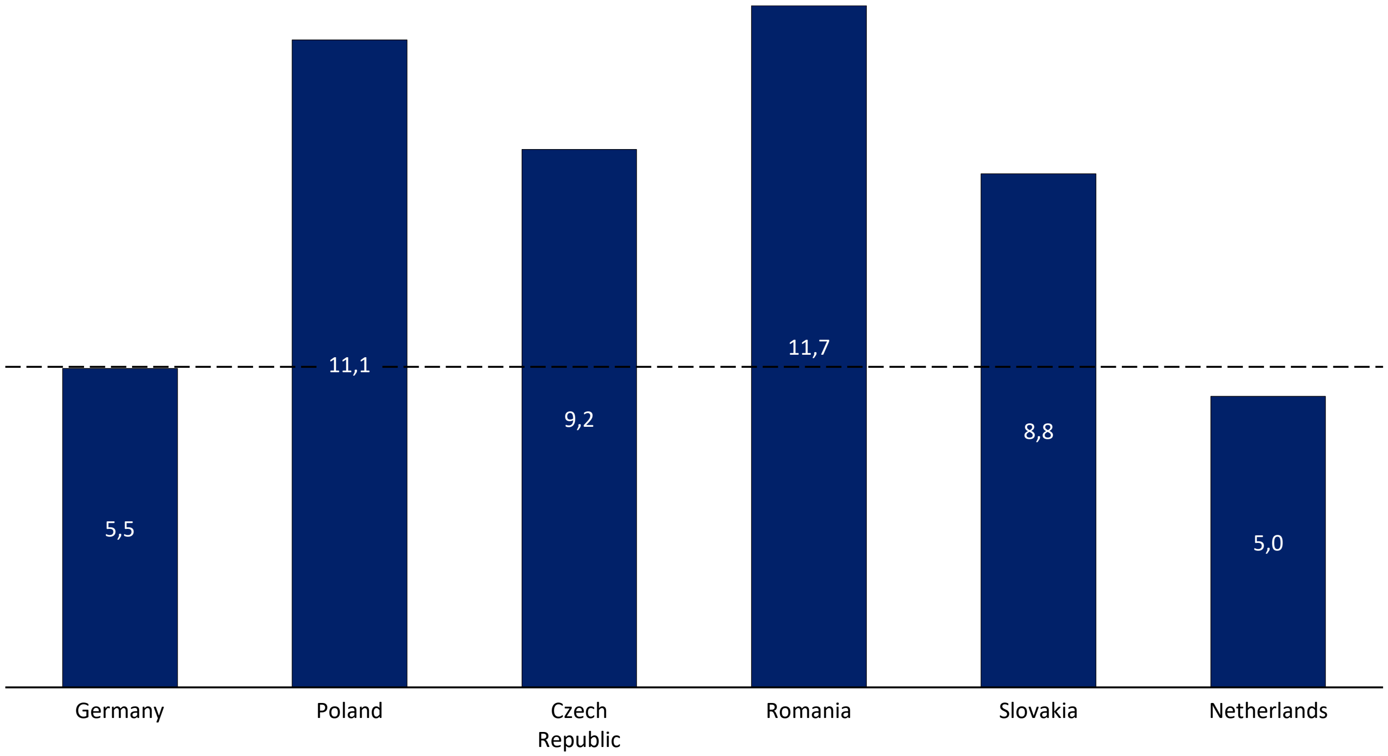
Source: European Commission Excise Duty Tables, July 2018; Eurostat

- The chart shows that any attempt to equalise the price in the countries from which C&C cigarettes consumed in the UK are sourced with UK cigarette prices would result in a disproportionate burden on duty-paid cigarette consumers in all of those countries – Romania, Poland, the Czech Republic, Bulgaria and Lithuania.
- Again, this would represent a major distortion brought about wholly by the tax system. The price of all duty-paid cigarettes in all five of these MSs would increase significantly – having a substantially detrimental impact on consumers of legal products on those countries – in order to solve a problem of negligible scale in the UK.
- Such an outcome would be neither justifiable in terms of economic logic nor a proportionate response to the 'problem' that is being addressed.

Closing the price gap between Germany and the countries from which C&C cigarettes are sourced would have a disproportionate effect on cigarette prices in PPP terms in a number of Eastern European MSs

Top 5 C&C source countries at WAP in Germany in PPP terms

- EUR per pack -



Source: European Commission Excise Duty Tables, July 2018; Eurostat

- The chart shows that any attempt to equalise the price in the countries from which C&C cigarettes consumed in Germany are sourced with German cigarette prices would result in a disproportionate burden on duty-paid cigarette consumers in four of those countries – Poland, the Czech Republic, Romania and Slovakia.
- As with France and the UK, the ‘problem’ of EU sourced C&C cigarettes being consumed in Germany is small at best. Reducing the affordability of duty-paid cigarettes sold to all legal consumers in Poland, the Czech Republic, Romania and Slovakia by such a large amount would be an entirely disproportionate policy response to solve the German C&C problem.

The price gap between France and the source countries

Hypotheses:

- 2021 Maximum incidence @63% of excise on WAP
- 150 minimum excise per 1000 sticks
- escape clause set @166,8€/'000

[redacted]

Source: BAT internal data

The price gap between Germany and the source countries

Hypotheses:

- 2021 Maximum incidence @63% of excise on WAP
- 150 minimum excise per 1000 sticks
- escape clause set @166,8€/’000

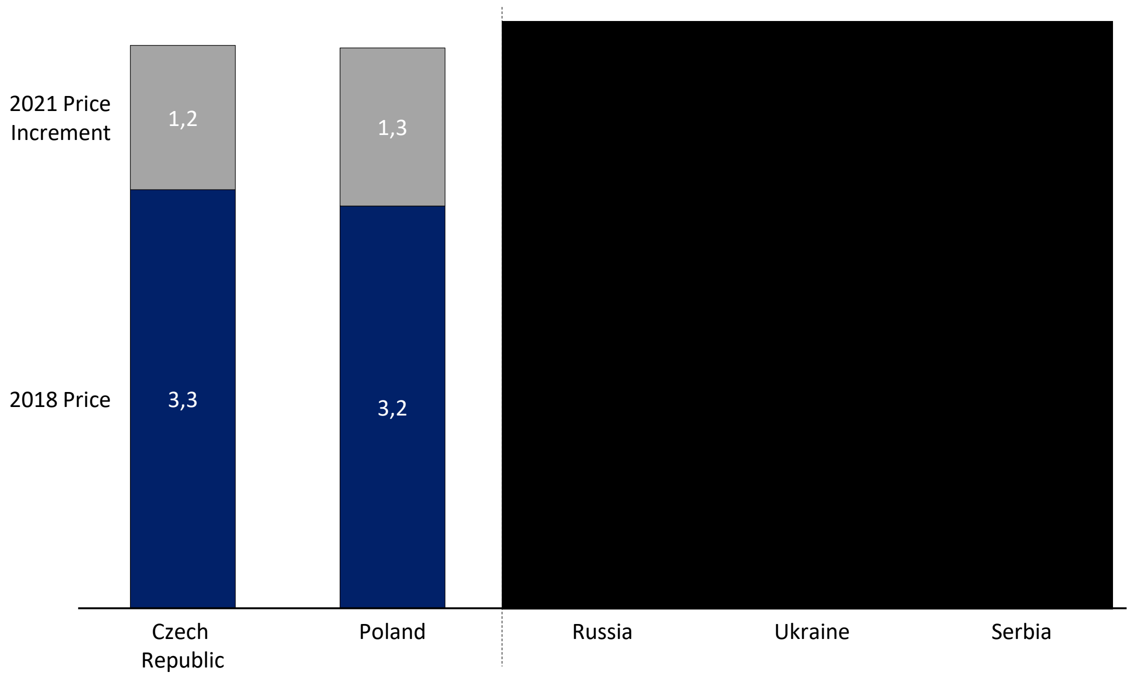
[redacted]

<u>Source</u>: BAT internal data

Increasing the cigarette minimum excise to €150 per 1,000 sticks and increasing the incidence to 63% will widen price gap between Eastern European MSs and their non-EU neighbours

WAP in PL and CZ vs. non-EU bordering countries

- EUR per pack -



- Cigarette taxes and prices in Eastern European MSs are low in absolute terms relative to those in the rest of the EU (although not in PPP terms).
- However, cigarette prices in the Eastern European MSs are high compared to countries to the east of the EU from which illicit cigarettes are known to be sourced.
- This already by far the biggest C&C issue for the EU.
- An increase in the minimum rates is problem is likely to stimulate illicit trade from countries where cigarettes are already 2 to 4 times cheaper than they are in the EU.

<u>Source</u>: European Commission Excise Duty Tables, July 2018; Eurostat

7. Removal of the ‘escape clause’ will not mitigate price differences between Member States

Scenarios of tax and prices increases

Scenario 2 models impacts of increases in the minimum excise rates on cigarette affordability

- In Scenario 2 we assume (i) the minimum excise increases to €150 per 1,000 sticks (excise level levied in Germany and Italy) and (ii) the 'escape clause' was removed.

- The detailed scenarios are shown in the table.

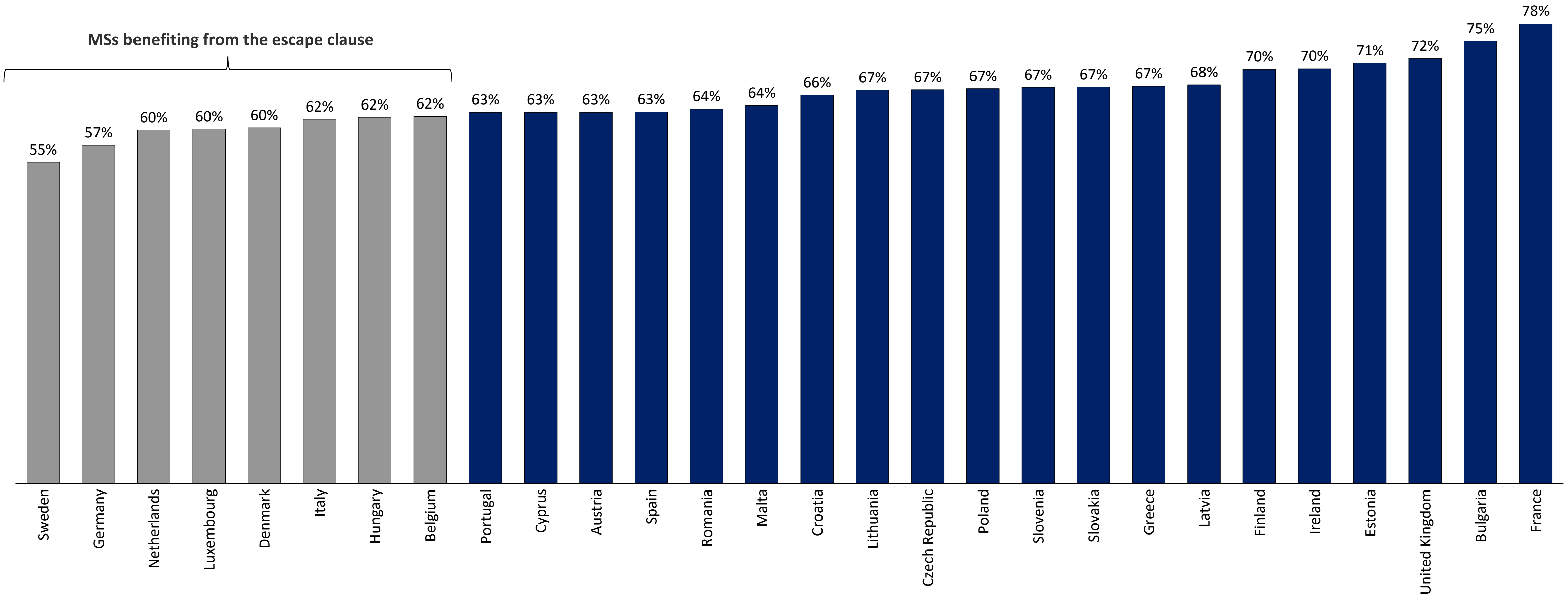
- We estimate the resulting prices in each MS by assuming the pre-tax component of prices remains constant. We believe this is a reasonable assumption since it is generally accepted that cigarette excise tax increases are at least fully passed on to the end consumer.

- In the pages that follow, we explain what this will do to cigarette affordability by MS.

		Today	Scenario 2	
			Δ vs. today	Excise rates
Minimum Total excise	% of WAP (incidence)	60%	+3%	63%
	Minimum excise €/'000	90	+ €60	150
	Exit clause (for incidence)	115	-	-
Specific (% of total tax incl. VAT)	Min	7.5%	-	7.5%
	Max	76.5%	-	76.5%

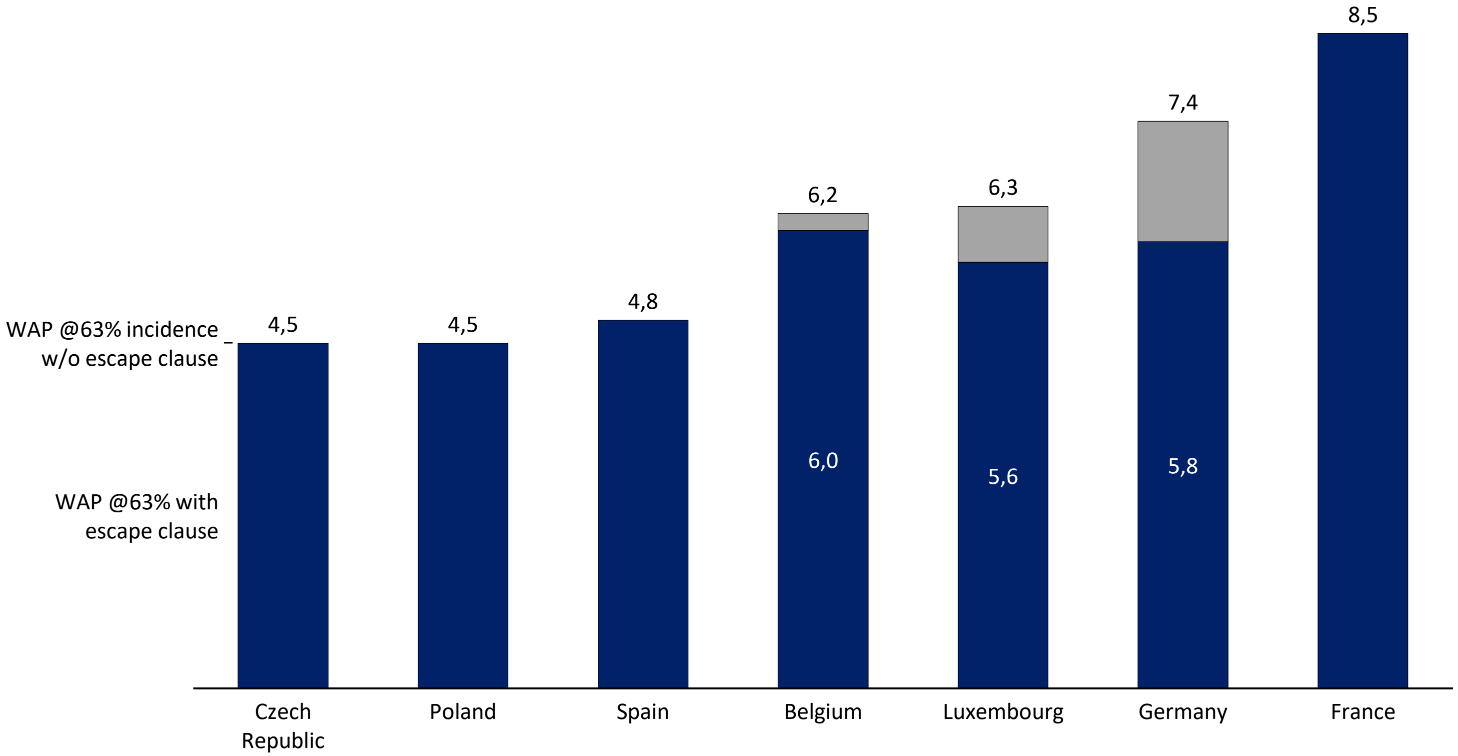
Impact on Countries by the remove of the escape clause considering an increase of minimum incidence @63%

Total excise duty as percentage of WAP before removing the escape clause (but considering an increase of minimum incidence to 63%)
– 2018, % -



Source: BAT calculations based on European Commission Excise Duty Tables, July 2018

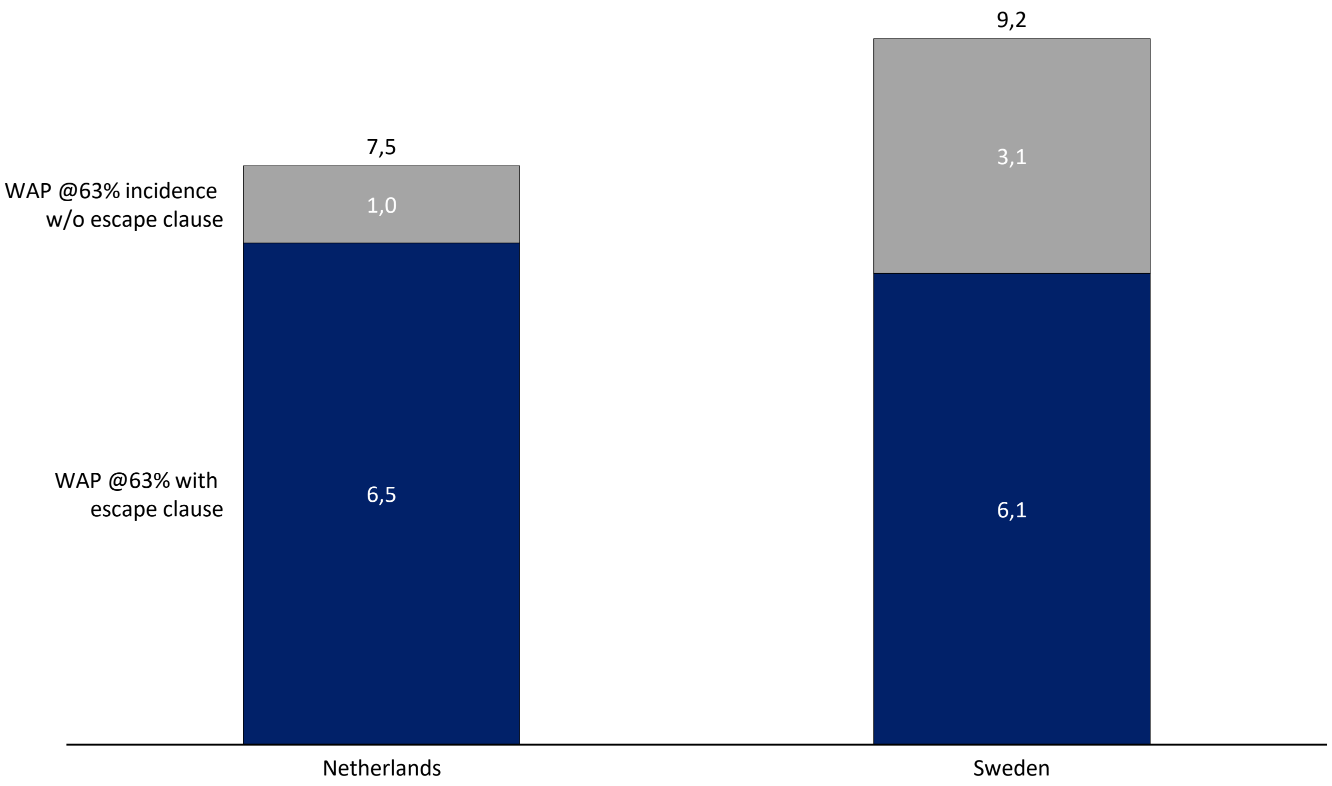
Removing the 'escape clause' will not solve the cross-border flows within the EU, considering an increase of minimum incidence @63%



➔ Removal of the escape clause would not narrow the price gap between EU MSs.

<u>Source</u>: BAT calculations based on European Commission Excise Duty Tables, July 2018

The Netherlands and Sweden would be affected by removing the escape clause



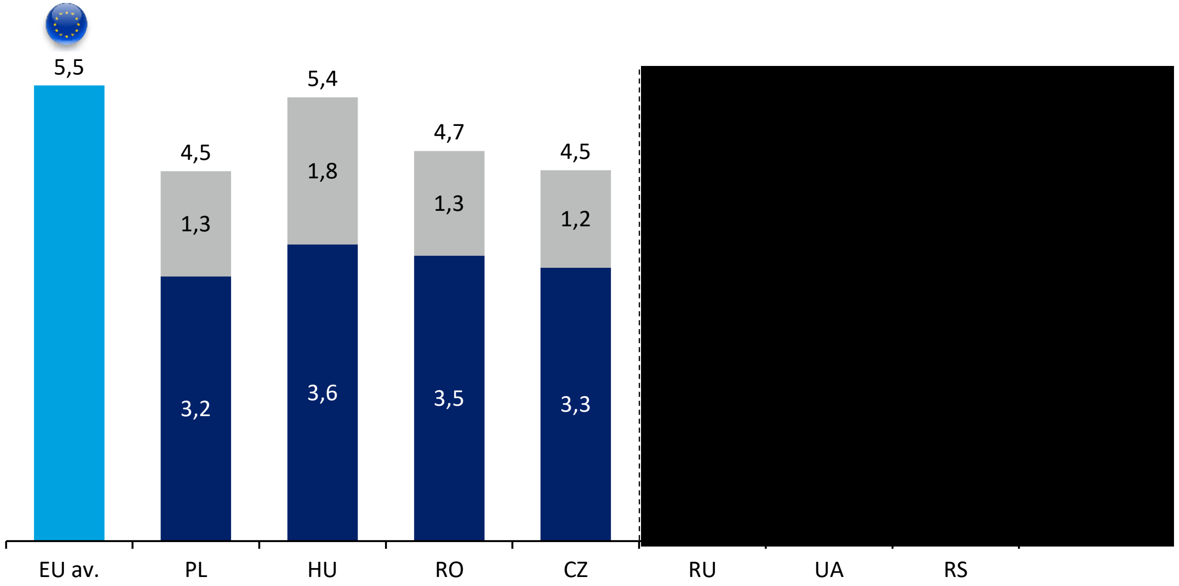
<u>Source</u>: BAT calculations based on European Commission Excise Duty Tables, July 2018

- The Netherlands and Sweden would be affected by removing the escape clause although they are not subjected to any inflow.

8. Any increase in the minimum excise requirement could also exacerbate price differences between European Member States and countries bordering the EU, increasing pressures for illicit trade

A higher tax burden on Eastern European MSs will widen the cigarette price gap vs non-EU countries and increase pressures for illicit trade

Impact of scenario 1 on WAP per pack vs. 2018
– 2018, EUR -



- Although – in absolute terms – cigarette taxes and prices are low relative to those in the rest of the EU, they are high compared to countries to the east of the Union from which illicit cigarettes are known to be sourced. These include Russia, Ukraine and Serbia (see KPMG's Project Sun 2017 Results for further details of illicit flows into the EU).

- The top left chart shows that cigarette price increases in the EU under Scenario 1 would – even after allowing for known tax and price increases that will take place in Russia, Ukraine and Serbia – widen the price difference between the EU and these countries. This is likely to stimulate illicit trade from countries where cigarettes are already [redacted] times cheaper than they are in the EU.

Source: European Commission

Appendix A

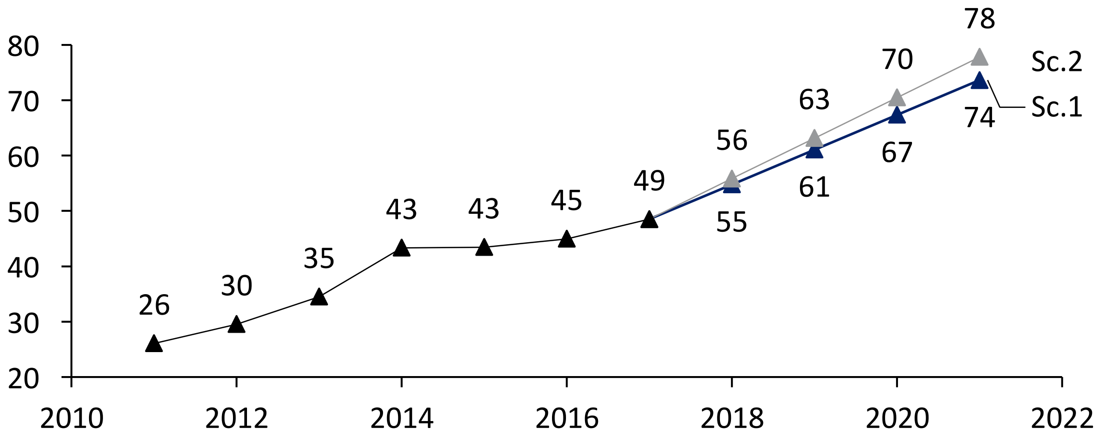
Impacts of increasing tax rates by a large amount on tax revenues in Hungary, Romania, Czech Republic, Poland and Spain

The price elasticity of demand for duty paid cigarettes in Hungary

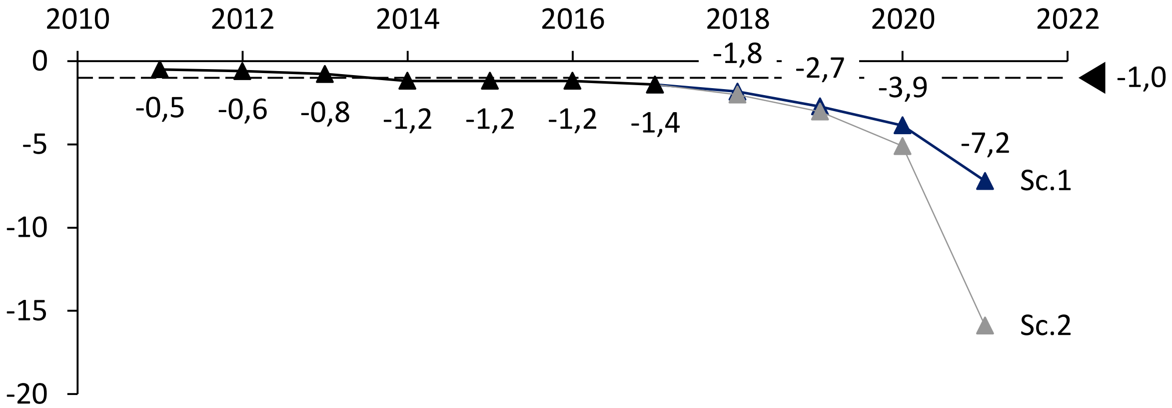
Hungarian cigarette consumers will become highly price elastic after any large increase in the minimum excise requirements

- A fundamental parameter needed to estimate the possible effect of future tax and price changes on sales volumes and tax revenues in any MS is the price elasticity of demand (PED) for duty paid cigarettes.
- The PED is the % change in sales volumes for every % change in price, holding all other factors constant.
- Generally, tax rate increases in a market with a PED greater than -1.2 or -1.3 can be expected to result in a disproportionate reduction in sales volumes and, in turn, lower tax revenues.
- We have estimated the PED for duty paid cigarettes in Hungary using historical price and volume data over the period 2000 to 2017. The chart on the bottom right shows our estimates.
- Critically, the PED for any product tends to increase as prices rise – as products become less affordable, more consumers can be expected to switch to an alternative or reduce consumption.
- We have also estimated how the PED can be expected to evolve under our two tax and pricing scenarios.

Evolution of cigs lowest price per 1000 cigs in both scenarios
– k HUF -



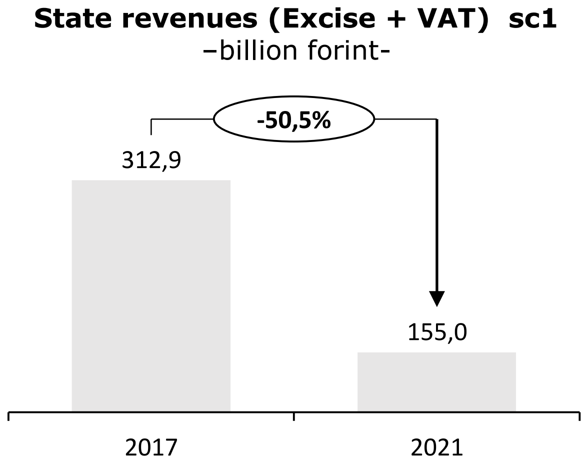
Evolution of PED in both scenarios



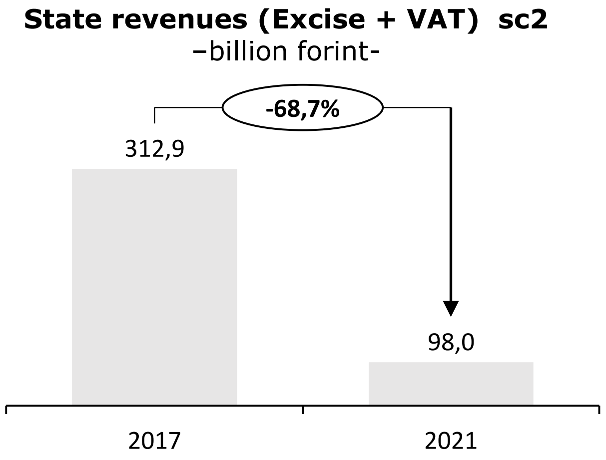
Source: European Commission

Increasing the minimum tax requirement in the TED could reduce tobacco excise tax and VAT revenues in Hungary by around 50%

- **Scenario 1**
- We estimate that following tax and price increases under Scenario 1, duty paid cigarette volumes will decline by 70%.
- Increasing excise levels even in this Scenario would reduce the affordability of legal cigarettes and could incite more consumers to buy from non EU countries where cigarettes are cheaper.
- Cigarette excise tax and VAT revenues will decline, as a direct consequence, by 50% between 2017 and 2021.



- **Scenario 2**
- We estimate that following tax and price increases under Scenario 2, duty paid cigarette volumes could decline by as much as 82%.
- Cigarette excise tax and VAT revenues would fall, as a direct consequence, by almost 69% between 2017 and 2021.

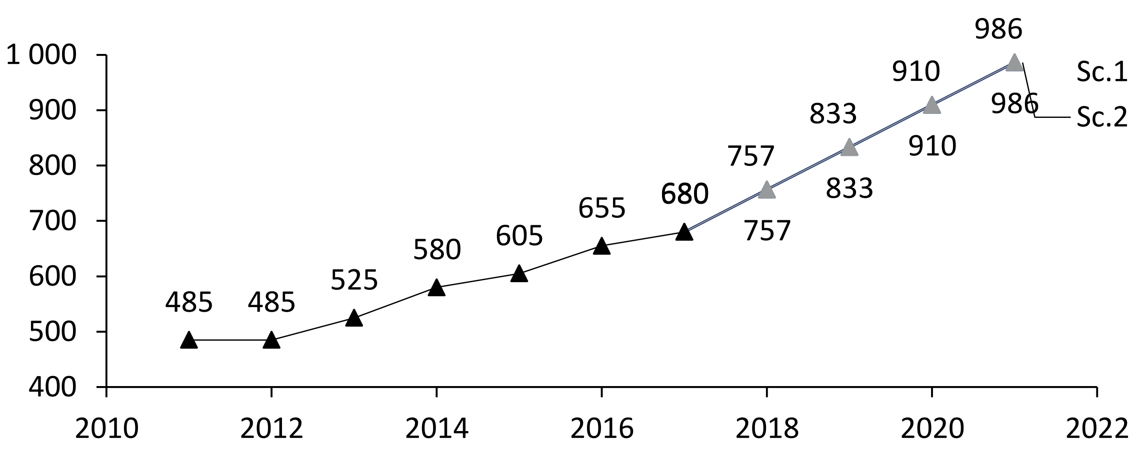


The price elasticity of demand for duty paid cigarettes in Romania

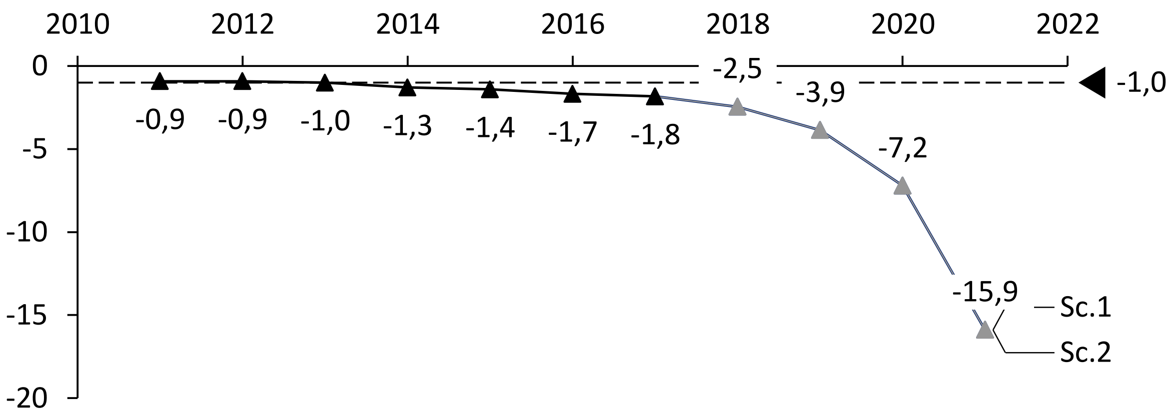
Romanian cigarette consumers will become highly price elastic after any large increase in the minimum excise requirements

- A fundamental parameter needed to estimate the possible effect of future tax and price changes on sales volumes and tax revenues in any MS is the price elasticity of demand (PED) for duty paid cigarettes.
- The PED is the % change in sales volumes for every % change in price, holding all other factors constant.
- Generally, tax rate increases in a market with a PED greater than -1.2 or -1.3 can be expected to result in a disproportionate reduction in sales volumes and, in turn, lower tax revenues.
- We have estimated the PED for duty paid cigarettes in Romania using historical price and volume data over the period 2000 to 2017. The chart on the bottom right shows our estimates.
- Critically, the PED for any product tends to increase as prices rise – as products become less affordable, more consumers can be expected to switch to an alternative or reduce consumption.
- We have also estimated how the PED can be expected to evolve under our two tax and pricing scenarios.

Evolution of cigs lowest price per 1000 cigs in both scenarios
– LEI -



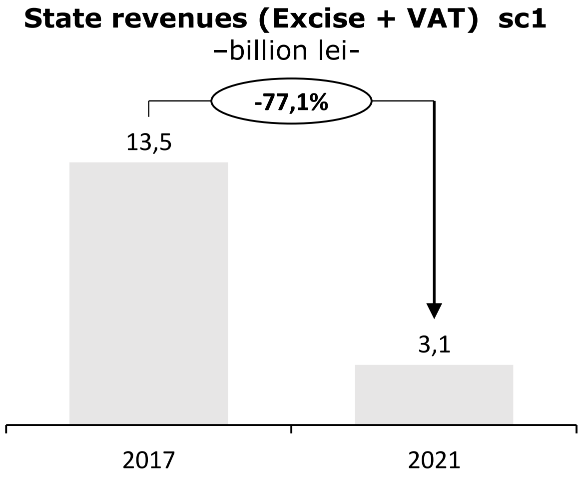
Evolution of PED in both scenarios



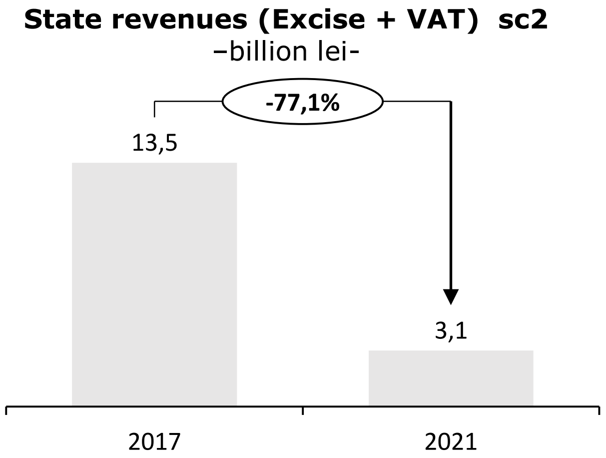
Source: European Commission

Increasing the minimum tax requirement in the TED could reduce tobacco excise tax and VAT revenues in Romania by 77%

- **<u>Scenario 1</u>**
- We estimate that following tax and price increases under Scenario 1, duty paid cigarette volumes will decline by 85%.
- Increasing excise levels even in this Scenario would reduce the affordability of legal cigarettes and could incite more consumers to buy from non EU countries where cigarettes are cheaper.
- Cigarette excise tax and VAT revenues will decline, as a direct consequence, by 77% between 2017 and 2021.



- **<u>Scenario 2</u>**
- We estimate that following tax and price increases under Scenario 2, duty paid cigarette volumes could decline by as much as 85%.
- Cigarette excise tax and VAT revenues would fall, as a direct consequence, by 77% between 2017 and 2021.

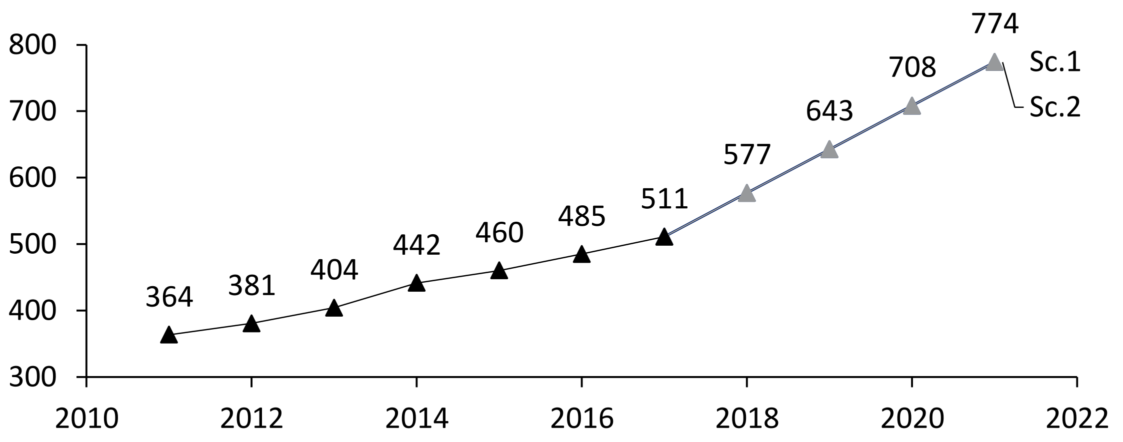


The price elasticity of demand for duty paid cigarettes in the Czech Republic

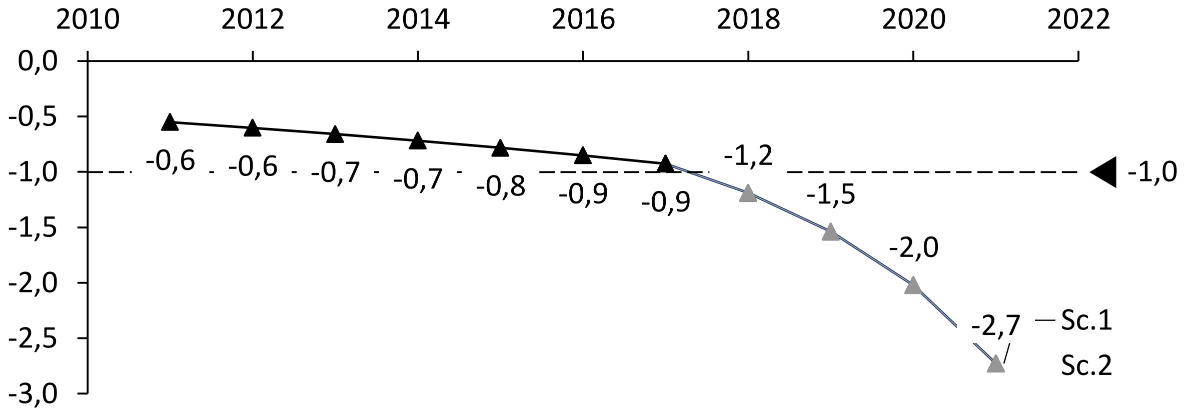
Czech cigarette consumers will become highly price elastic after any large increase in the minimum excise requirements

- A fundamental parameter needed to estimate the possible effect of future tax and price changes on sales volumes and tax revenues in any MS is the price elasticity of demand (PED) for duty paid cigarettes.
- The PED is the % change in sales volumes for every % change in price, holding all other factors constant.
- Generally, tax rate increases in a market with a PED greater than -1.2 or -1.3 can be expected to result in a disproportionate reduction in sales volumes and, in turn, lower tax revenues.
- We have estimated the PED for duty paid cigarettes in Czech Republic using historical price and volume data over the period 2000 to 2017. The chart on the bottom right shows our estimates.
- Critically, the PED for any product tends to increase as prices rise – as products become less affordable, more consumers can be expected to switch to an alternative or reduce consumption.
- We have also estimated how the PED can be expected to evolve under our two tax and pricing scenarios.

Evolution of lowest price per 1000 cigs in both scenarios
– CZK -



Evolution of PED in both scenarios

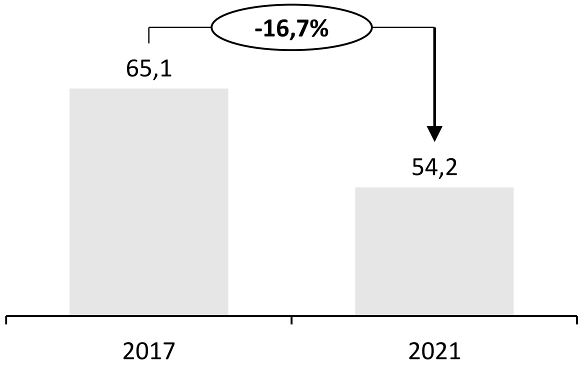


Source: European Commission

Increasing the minimum tax requirement in the TED could reduce tobacco excise tax and VAT revenues in the Czech Republic by almost 17%

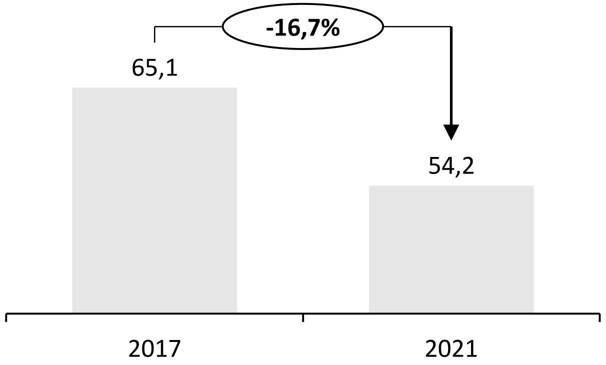
- **Scenario 1**
- We estimate that following tax and price increases under Scenario 1, duty paid cigarette volumes will decline by 48%.
- Increasing excise levels even in this Scenario would reduce the affordability of legal cigarettes and could incite more consumers to buy from non EU countries where cigarettes are cheaper.
- Cigarette excise tax and VAT revenues will decline, as a direct consequence, by 17% between 2017 and 2021.

State revenues (Excise + VAT) sc1
–billion CZK-



- **Scenario 2**
- We estimate that following tax and price increases under Scenario 2, duty paid cigarette volumes could decline by as much as 48%.
- Cigarette excise tax and VAT revenues would fall, as a direct consequence, by almost 17% between 2017 and 2021.

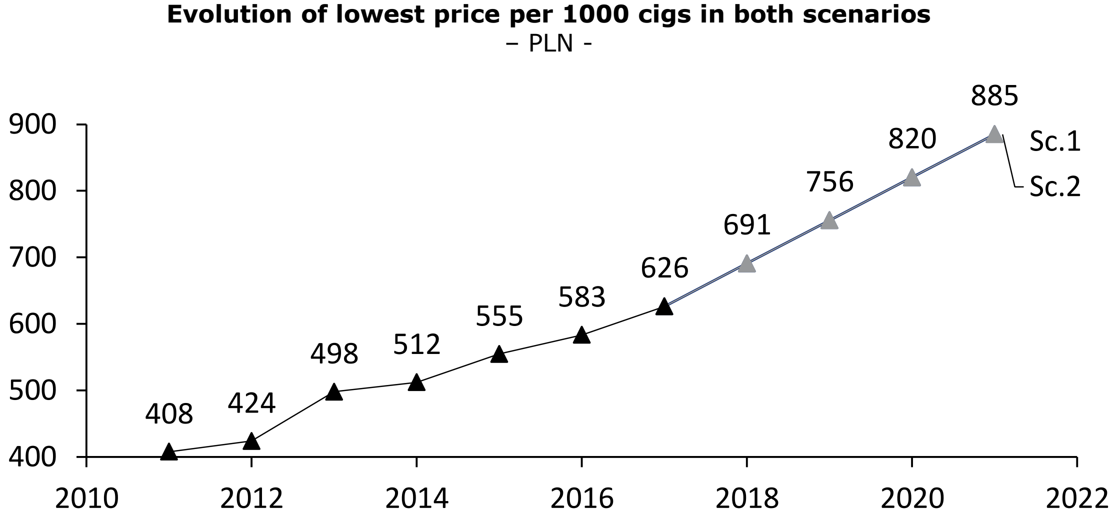
State revenues (Excise + VAT) sc2
–billion CZK-

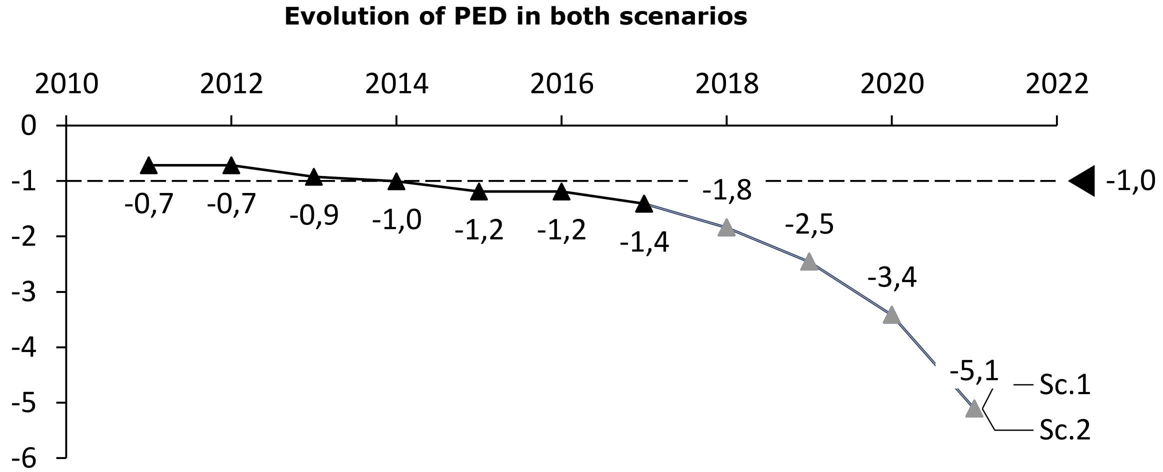


The price elasticity of demand for duty paid cigarettes in Poland

Polish cigarette consumers will become highly price elastic after any large increase in the minimum excise requirements

- A fundamental parameter needed to estimate the possible effect of future tax and price changes on sales volumes and tax revenues in any MS is the price elasticity of demand (PED) for duty paid cigarettes.
- The PED is the % change in sales volumes for every % change in price, holding all other factors constant.
- Generally, tax rate increases in a market with a PED greater than -1.2 or -1.3 can be expected to result in a disproportionate reduction in sales volumes and, in turn, lower tax revenues.
- We have estimated the PED for duty paid cigarettes in Poland using historical price and volume data over the period 2000 to 2017. The chart on the bottom right shows our estimates.
- Critically, the PED for any product tends to increase as prices rise – as products become less affordable, more consumers can be expected to switch to an alternative or reduce consumption.
- We have also estimated how the PED can be expected to evolve under our two tax and pricing scenarios.

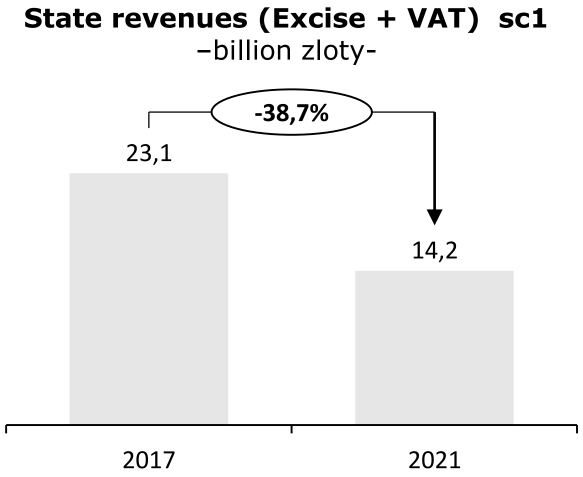




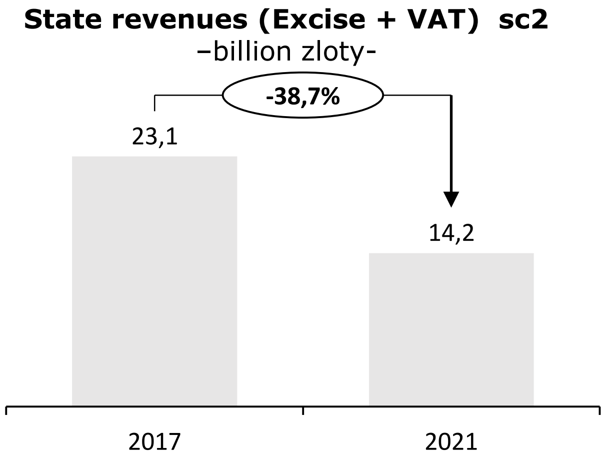
Source: European Commission

Increasing the minimum tax requirement in the TED could reduce tobacco excise tax and VAT revenues in Poland by 38%

- **<u>Scenario 1</u>**
- We estimate that following tax and price increases under Scenario 1, duty paid cigarette volumes will decline by 59%.
- Increasing excise levels even in this Scenario would reduce the affordability of legal cigarettes and could incite more consumers to buy from non EU countries where cigarettes are cheaper.
- Cigarette excise tax and VAT revenues will decline, as a direct consequence, by 39% between 2017 and 2021.



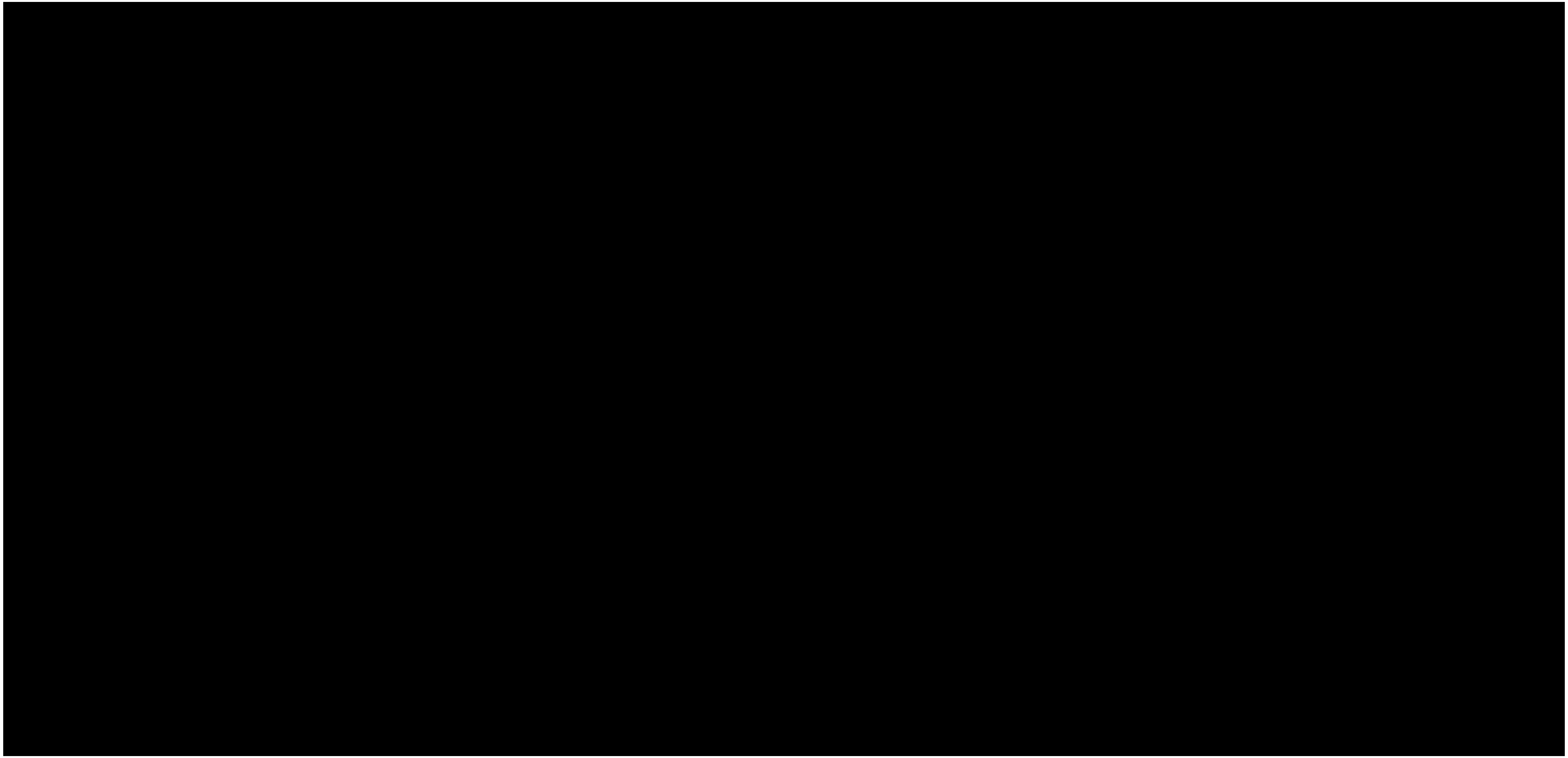
- **<u>Scenario 2</u>**
- We estimate that following tax and price increases under Scenario 2, duty paid cigarette volumes could decline by as much as 59%.
- Cigarette excise tax and VAT revenues would fall, as a direct consequence, by almost 39% between 2017 and 2021.



Appendix B

An excessively high MED has had an impact on the demand distribution amongst price segments

Greece case study



France case study