

# Study on Fine-Cut Tobacco (FCT) excise structure in the European Union

A report to the European Smoking Tobacco Association



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**London**  
**Economics**

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## Executive summary

### The EU market for fine-cut tobacco

Our analysis shows a number of key features associated with fine-cut tobacco (FCT) and its consumers.

- **The consumption of fine-cut tobacco varies widely across the European Union**, both in absolute terms, and relative to the consumption of factory-made cigarettes (FMC). In some Member States, almost half of all tobacco consumption is represented by fine-cut tobacco, while in others, FCT consumption is negligible.
- **Not all consumers of tobacco products are similar**. Specifically, detailed analysis of the personal and socioeconomic characteristics of consumers of tobacco products suggests that those individuals who consume FCT rather than FMC have a lower probability of being in employment, face greater financial or affordability constraints, and are more sensitive to prices.
- **There is no one single identifiable market for fine-cut tobacco across the European Union**; rather, there are many types of FCT markets, differentiated by different consumer preferences, political and economic conditions, and excise rates. Within any of these individual Member States, consumers can select between a range of duty-paid tobacco products (such as FMC or FCT) at different price points to reflect preferences, affordability constraints and consumer choice. In addition, the EU's Single Market means that many consumers can also straightforwardly cross national boundaries, and purchase duty-paid tobacco products elsewhere for personal use if there are sufficient incentives to do so. Consumers who are priced out of the legitimate tobacco market may also switch their consumption from legal to illicit tobacco products.

### The *buffer function* role of fine-cut tobacco

The widespread perception is that the demand for tobacco is relatively unresponsive to changes in price. Given this, governments have traditionally sought to increase tobacco excise in order to raise tax revenues. However, this reflects only part of the story, in the sense that although the overall demand for tobacco products is highly inelastic, **the demand for duty-paid tobacco products is much more responsive to changes in price**. Therefore, following an increase in tobacco taxation that feeds through to retail price, governments may see a decrease (rather than an increase) in tax revenues, as well as market disruption, due to consumers switching to non-domestic duty-paid tobacco and/or illicit products.

In economic terms, the **buffer function** associated with fine-cut tobacco reflects the fact that FCT acts as a potential **alternative proposition** for illicit tobacco products. Domestic duty-paid FMC, cross-border purchased FMC and illicit FMC are to some extent substitutes for each other. Therefore, one would expect an increase in the excise duty imposed on duty-paid FMC to *increase* demand for both cross border FMC and/or illicit FMC. However, FCT provides an alternative domestic-duty paid tobacco product to consumers who are priced out of the market for domestic duty-paid FMC. The maintenance of some excise duty and price differential between domestic FMC and FCT encourages consumers to **switch to legal FCT rather than purchasing cross-border FMC or illicit tobacco products**. As such, FCT acts as a **buffer** between domestic duty-paid tobacco, and cross-border or illicit tobacco products that generate no taxation revenue for the government.

Despite the fact that demand for FCT is negatively impacted by increases in excise duties, **maintaining a difference in excise duties between FMC and FCT acts to reduce the negative fiscal impact associated with raising duties** on FMC, and hence consolidates the tobacco tax receipts that are accrued by the government.

## What happens when jurisdictions get it wrong?

### United Kingdom

The United Kingdom adopted a tobacco tax ‘escalator’ policy (between 1993 and 2000) to drive up excise duty on tobacco products in real terms – that is to say after accounting for inflation. Specifically, excise duties rose by between 3% and 5% more than inflation between 1993 and 2000. In 2001, the escalator policy was halted and taxes on tobacco products were frozen in real terms. This taxation slowdown continued (essentially unchanged) until 2010 when the escalator policy was re-introduced.

Given the high (and increasing) duties on FCT, the United Kingdom has experienced some of the most significant levels of illicit trade in FCT (as high as **62%** in 2004-05).

Increased enforcement activities, combined with lower increases of the duties imposed on FCT, have resulted in a reduction in the level of illicit trade to its lowest recorded level of **35%** of total consumption in 2011-12. Alongside this, there has been a significant improvement in government FCT taxation receipts (from **£200m** in 2000-01 to **£1.1bn** in 2013-14).

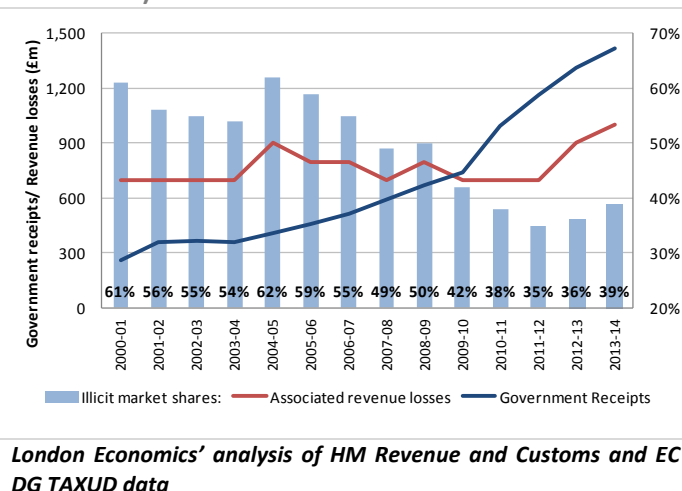
However, with the re-introduction of the tobacco taxation escalator in 2010, the trend in illicit trade has reversed, increasing to **39%** in 2013-14, with the associated tax loss rising from **£0.7 billion** to **£1 billion** over the corresponding period.

### Netherlands

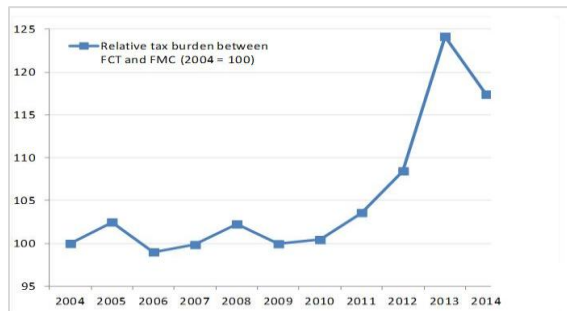
In the Netherlands, after a period of stability, following the imposition of a number of sharp tobacco taxation increases between 2011 and 2013, the overall tax burden on a Fine-cut Tobacco **increased proportionally more than for FMC**, reflecting a policy objective to reduce significantly the gap between the tax burdens on the two types of tobacco products.

Consumption volumes of duty-paid FCT declined more or less steadily from 2002 to 2012 (by **33%** over this period), while consumption of duty-paid FMC showed a broadly similar decline (**27%**). **However, the gradual decline in duty-paid FCT observed until 2012 turned into an abrupt annual drop of 21% in 2013 and a further decline by 6.5% in 2014.**

**Figure 1: Illicit market share/revenue losses and government tax receipts associated with FCT (2000-01 to 2013-14)**



**Figure 2: Evolution of the relative tax burden of FCT relative to FMC - 2004-2014 (2004=100)**



Source: Centraal Bureau voor de Statistiek (CBS), EC DG TAXUD

**Figure 3: Government tax revenues from tobacco products 1998 - 2014 (€ millions)**



Source: Centraal Bureau voor de Statistiek (CBS). Note that the information from CBS is 'actual' between 1998 and 2012. Information from 2013 and 2014 is provision and subject to revision (6, 12 and 30 months) after the calendar year in question. Note also that there are some differences in the CBS and EC DG TAXUD ([here](#)) estimates in 2013 and 2014.

Following the substantial increase in the tobacco tax burden – both in absolute terms and relative to neighbouring countries - **government tobacco tax revenues in the Netherlands fell by 16% in 2013 (corresponding to more than €430 million)**. This decline in taxation revenues reflected a combination of a decrease in tobacco consumption, consumer switching to more affordable products (both FMC and FCT), substantially increased cross border shopping, and an increase in illicit purchases.

The analysis suggests that when setting duty rates on tobacco products, national authorities need to take account of the duty rates in neighbouring countries. If domestic duties increase rapidly and differ markedly from those in neighbouring countries, evidence suggests that a significant share of domestic consumption will be sourced abroad. Recent developments in the Netherlands demonstrate that these principles of FCT taxation have not been followed, resulting in a sharp decline of government tobacco tax receipts and market disruption.

### Can countries learn from their mistakes?

#### Germany

Between 2002 and 2005, the German government implemented several significant increases in tobacco taxation duties. As a result of the associated increases in cross-border shopping, as well as the increase in the volume of illicit trade, tobacco taxation revenues declined. Given this, the German government responded by keeping the headline tobacco excise rates unchanged from 2006 to 2010, raising only the minimum excise rate in January 2006.

However, with Poland and the Czech Republic joining the Schengen agreement in 2008, the ease of cross-border shopping increased, and resulted in a large increase in the purchase of non-domestic tobacco products. The share of non-domestic products in the German market increased markedly, from its 2005 level of **16.1%** to a “new normal” of **20%** or higher. As a consequence, between 2008 and 2010 tobacco excise revenues fell below 2002 levels.

In 2010, learning from the costly mistakes of a decade in which it had sought to increase tobacco revenues, the German government implemented a long-term tobacco excise policy (Tobacco Duty Model). This implementation of the Tobacco Duty Model aimed to provide greater long term certainty and **predictability** to German tobacco excise policy through the adoption of **moderate increases** in excise duties determined over a **five-year period**.

This policy **balanced** fiscal and public health objectives, **increased government revenue**, and **reduced 'non-German' product inflow**, while also **decreasing consumption**.

Moderate fine-cut tobacco taxation has played an important role in this turnaround.

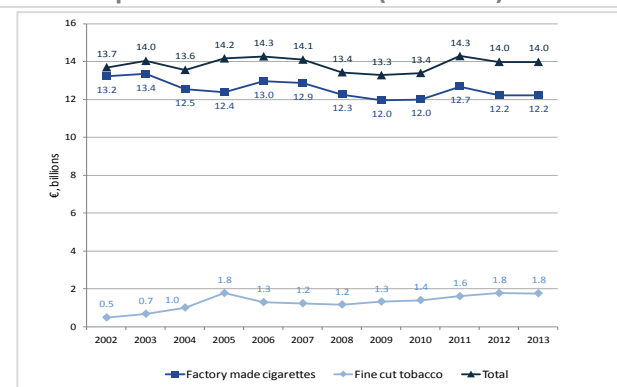
## Policy implications

Based on evidence from a number of national statistical agencies and the European Commission, the London Economics' analysis indicates that **abrupt and sharp increases in tobacco taxation can create strong incentives for consumers to change their purchasing behaviour**. This has been demonstrated to increase the incidence of cross-border duty-paid purchases, but also the prevalence of illicit tobacco.

**Reflecting the fact that FCT consumers are typically lower-income and more price-sensitive than FMC consumers, fine-cut tobacco provides an important buffer function** between domestic duty paid tobacco and both cross-border trade and the illicit market. By maintaining differential tax rates between fine-cut tobacco and factory-made cigarettes, the domestic duty-paid FCT market acts to preserve the tax-base and maintain government taxation receipts.

Increases in the tax rates applied to fine-cut tobacco should be implemented in a gradual manner in a way that acknowledges both **consumer affordability issues**, but also the availability of **domestic substitutes, cross border purchases**, and the **prevalence of illicit tobacco products**.

**Figure 4: Government tax revenues from tobacco products 1998 - 2013 (€ billions)**



Source: London Economics' analysis of Statistisches Bundesamt (2013)

# 1 Introduction

London Economics were commissioned by the European Smoking Tobacco Association (ESTA) to undertake an analysis of a range of issues relating to the incidence of duty-paid fine cut tobacco (FCT) consumption and the impact of tobacco taxation policies on the FCT market in the European Union.

Illustrating the variation between countries and within different consumer groups, the analysis presents the main characteristics of FCT markets in different EU Member States, alongside some of the socioeconomic characteristics of FCT smokers (compared to factory made cigarettes (FMC)).

Following this scene-setting, we highlight a number of the economic principles underpinning these markets, as well as the important role of FCT as a *buffer function* between FMC and the illicit tobacco market.

Using a range of case studies based on recent tobacco taxation policies in different jurisdictions, we demonstrate the impact of these policies on the incidence of duty-paid FCT consumption, cross-border purchases and illicit trade, as well as the consequential impact on government taxation receipts from tobacco.



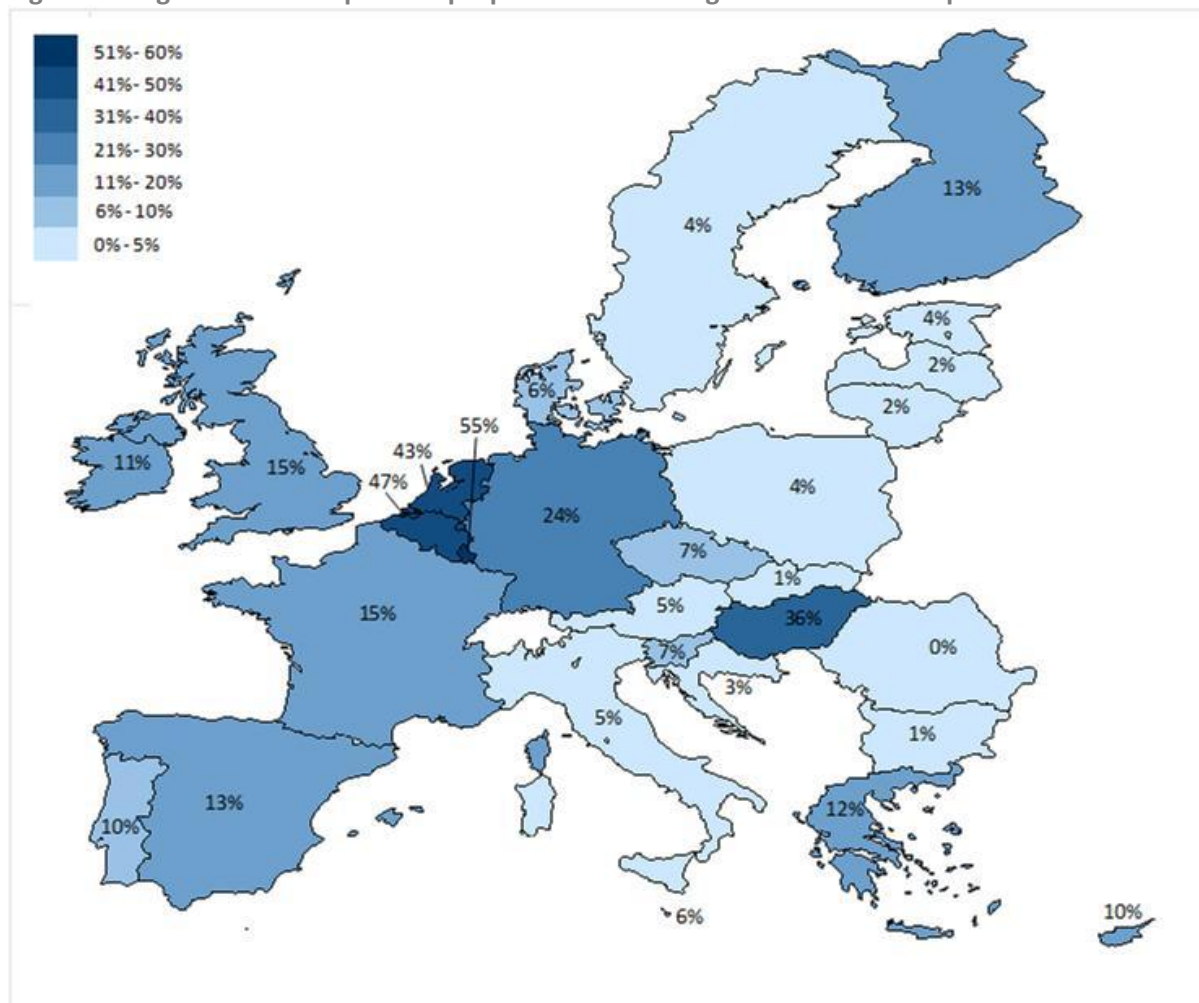
## 2 Characteristics of FCT consumption and FCT consumers

### 2.1 Characteristics of FCT consumption

The prevalence of FCT consumption varies significantly country by country. Using information on total volumes of FMC and FCT in 2013 from the European Commission's Directorate for Taxation and Customs Union (DG TAXUD) and assuming that 1 kilogramme of FCT corresponds to 1,000 cigarettes, the analysis presented in Figure 5 indicates that some markets are particularly mature, with approximately one-half of all tobacco released for consumption accounted for by FCT (Luxembourg (55%), Belgium (43%) and the Netherlands (43%)).

In a number of other (predominantly) western European jurisdictions, the proportion of total tobacco consumption represented by FCT stands at between 15% and 25% (for instance, Germany (24%), France (15%), and the United Kingdom (15%)). With the exception of Hungary (where the proportion of FCT consumption stands at 36% of total tobacco consumption), the proportion of FCT consumption in northern/central/eastern and southern Europe is relatively low, and generally below 10% of total tobacco consumption.

Figure 5: Legal FCT consumption as proportion of total legal tobacco consumption

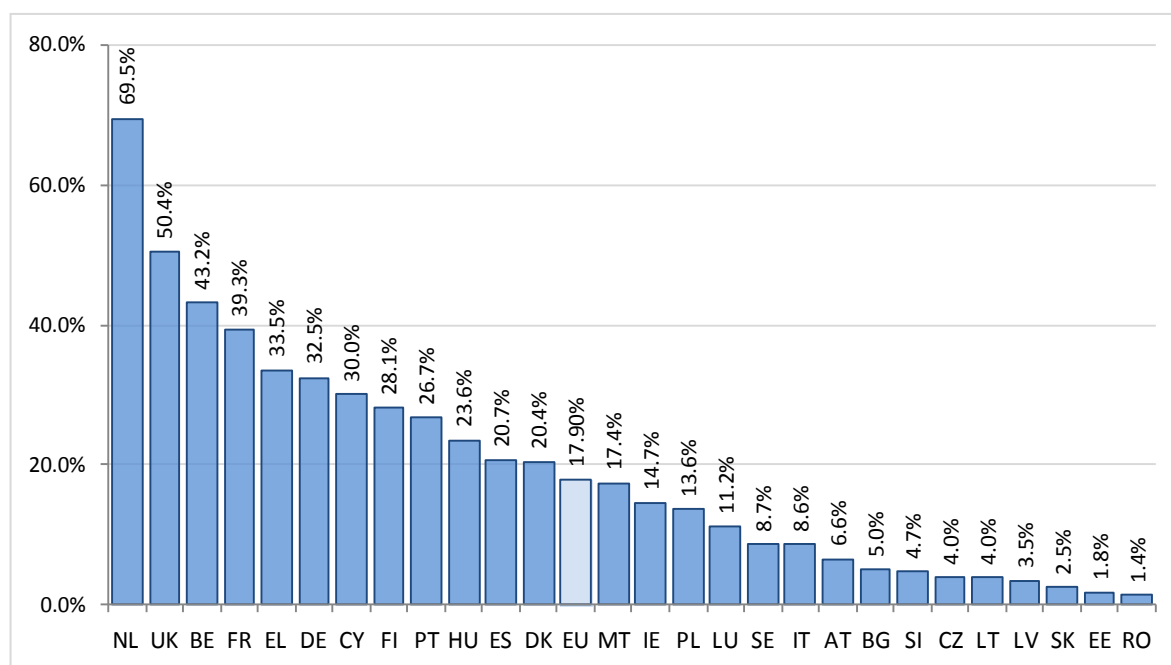


Source: London Economics analysis of EC DG TAXUD (2013) data

Note: The volume of FCT consumption as a proportion of total tobacco consumption is based on the assumption that 1,000 FMC sticks correspond to 1 kilogramme of FCT.

In a further representation of the variation across countries, the information in Figure 6 (which is derived from analysis of country-level Eurobarometer (385) data) demonstrates the difference in current every-day FCT smoking prevalence between EU Member States. Amongst current everyday smokers, respondents are asked the incidence of either FCT and/or FMC consumption. The analysis suggests that across the entire EU, approximately 18% of smokers consume FCT. However, reflecting the differing maturity of FCT across Member States, the prevalence of FCT consumption amongst smokers varies significantly. In the Netherlands, approximately 70% of smokers indicated that (at least some of) their consumption of tobacco was FCT, while in the United Kingdom, Belgium, France, Greece and Germany, FCT prevalence amongst smokers was between 30% and 50%. In contrast, in Romania, Estonia, Slovakia, Latvia, the Czech Republic and Slovenia, the prevalence of FCT consumption was very low (standing at less than 5%).

**Figure 6: Proportion of current everyday smokers (of either FCT or FMC) consuming FCT**



**Source: London Economics analysis of Eurobarometer 385, June 2012**

([http://ec.europa.eu/health/tobacco/docs/eurobaro\\_attitudes\\_towards\\_tobacco\\_12012\\_en.pdf](http://ec.europa.eu/health/tobacco/docs/eurobaro_attitudes_towards_tobacco_12012_en.pdf)).

## 2.2 Characteristics of FCT consumers

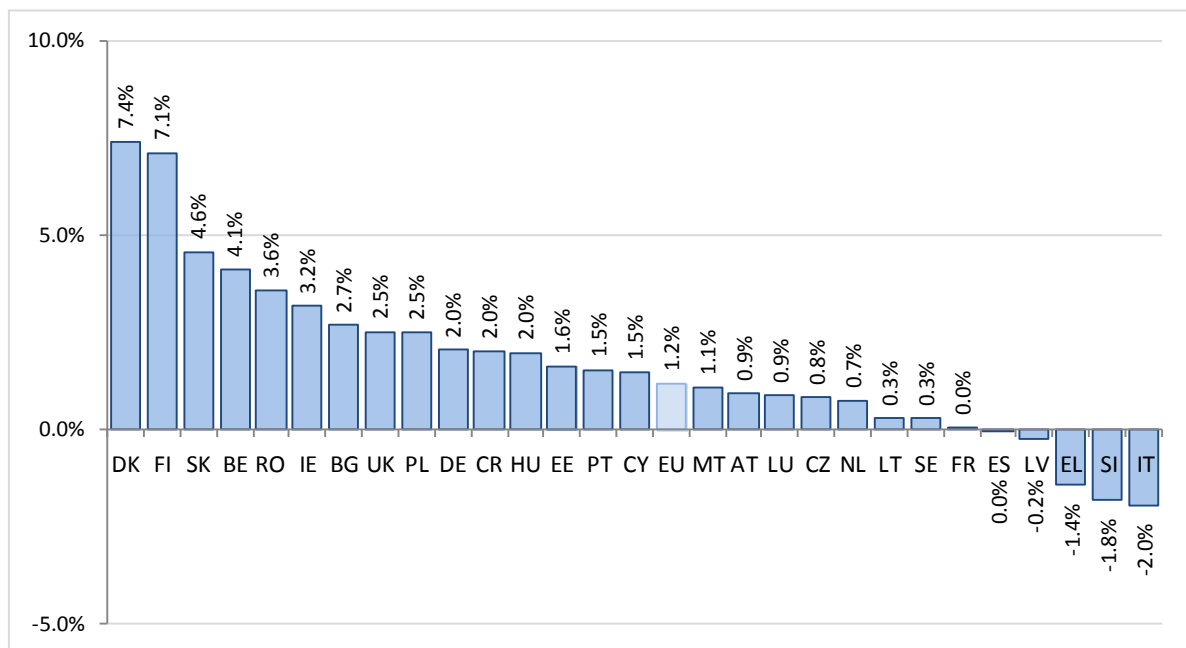
There are significant and well-established differences in the personal and socioeconomic characteristics of smokers and those individuals that have never smoked. For instance, information from Eurobarometer 385 (2012) indicates that compared to individuals that have never smoked, individuals who currently smoke are more likely to be male; more likely to be aged between 25 and 54; more likely to have completed formal education between the ages of 16 and 19; more likely to be self-employed or unemployed; and more likely to have positioned themselves on Levels 1 to 4

<sup>1</sup> Eurobarometer data currently available dates back to 2012. The most recent evidence relating to attitudes and prevalence towards tobacco products relates to the most recent Eurobarometer study 429 ([here](#)); however, the micro-level data was unavailable to make comparisons with the previous 2012 Eurobarometer study

(out of 10) of a 'social staircase;' measure. However, there are also fundamental differences between the socioeconomic characteristics of FCT and FMC smokers.

Again using country-level information from Eurobarometer 385 (2012), it is possible to identify (at a relatively high level) a number of personal and socioeconomic differences between FCT and FMC consumers. In terms of personal characteristics, individuals who consume FCT are more likely to be male (compared to FMC consumers), are more likely to be younger adults, and more likely to self-categorise themselves in lower social groups. However, in relation to more economic or socioeconomic characteristics, Figure 7 illustrates the difference in unemployment rate between individuals describing themselves as FMC consumers or FCT consumers. Across the EU, individuals who are FCT consumers are approximately 1.2 percentage points more likely to be unemployed than individuals describing themselves as FMC consumers. Again, there is substantial variation around the mean, with FCT consumers in Scandinavian countries significantly more likely to be unemployed relative to their FMC counterparts, while the opposite is the case in Italy, Slovenia, Greece, Latvia and Spain.

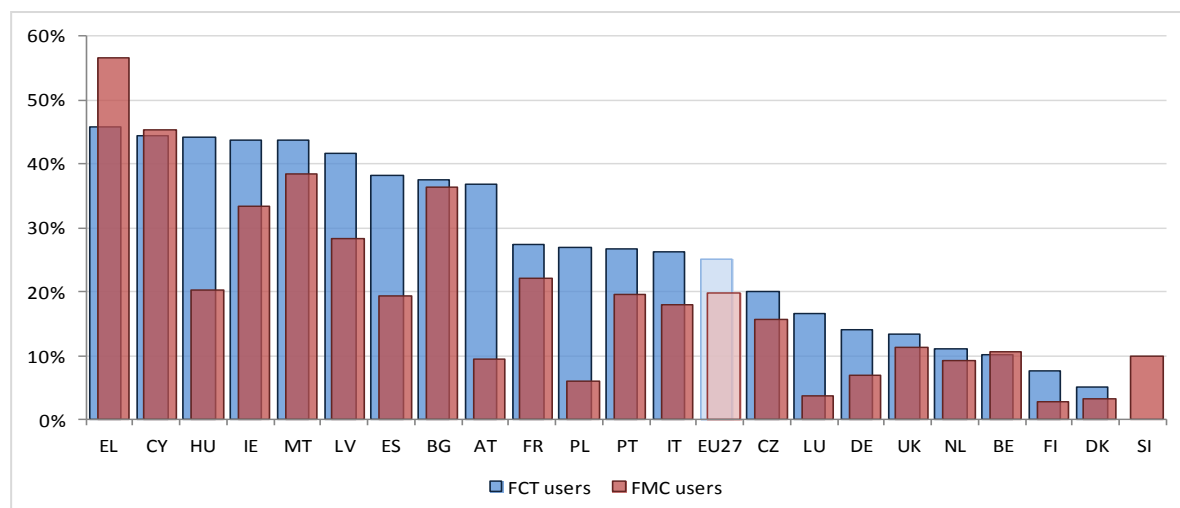
Figure 7: Difference in unemployment rate between current everyday FCT and FMC smokers



Source: London Economics analysis of Eurobarometer 385, June 2012. ([http://ec.europa.eu/health/tobacco/docs/eurobaro\\_attitudes\\_towards\\_tobacco\\_2012\\_en.pdf](http://ec.europa.eu/health/tobacco/docs/eurobaro_attitudes_towards_tobacco_2012_en.pdf))

Figure 8 demonstrates that, among current daily smokers, consumers of FCT are more likely to report that they have problems paying their bills (either “some of the time” or “all of the time”) than FMC consumers.

**Figure 8: Proportion of current everyday smokers (either FCT and/or FMC) who report financial difficulties (at least some of the time).**



**Source: London Economics analysis of Eurobarometer 385, June 2012**

([http://ec.europa.eu/health/tobacco/docs/eurobaro\\_attitudes\\_towards\\_tobacco\\_2012\\_en.pdf](http://ec.europa.eu/health/tobacco/docs/eurobaro_attitudes_towards_tobacco_2012_en.pdf))

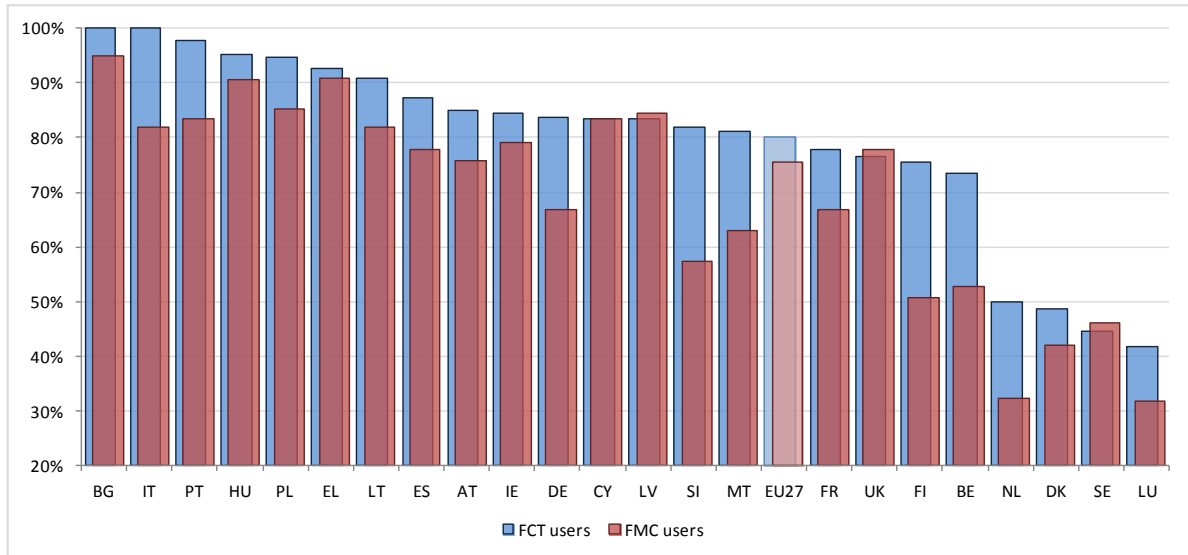
Note: Sample sizes for FCT users in Estonia, Lithuania, Romania, Sweden and Slovakia were small and are therefore not shown above. In some cases, individuals may be both FCT and FMC smokers and hence, observations are not unique.

This analysis illustrates that FCT consumers (in general) face tighter budget constraints (and hence affordability issues) compared to FMC consumers. Even in those jurisdictions where these budget constraints are less binding than the EU average (for instance, Germany, the United Kingdom and the Netherlands), it remains the case that FCT consumers indicate that they face greater challenges paying their bills compared to FMC consumers.

What does this mean in practice? There is a correlation between wider economic measures (such as long-term unemployment rates) and narrower household measures relating to general financial standing (such as ability to pay bills); however, the next element of the analysis provides some additional information on the importance of price on tobacco brand selection. The analysis does not present information on the relationship between price and tobacco consumption generally, but only information on the importance of price in the choice of brand. However, despite this, it is interesting to note that, in general, individuals who are FCT consumers indicate that price is more influential on their choice of brand compared to individuals who currently consume FMC every-day.

Across all Member States, although there is a 4 percentage point gap in the proportion of FMC and FCT every-day consumers indicating that price is important in the selection of brand, the difference is in excess of 20 percentage points in Belgium, Finland and Slovenia, and between 10 and 20 percentage points in the Netherlands, France, Malta, Denmark, Italy and Portugal.

**Figure 9: Proportion of current everyday smokers (either FCT and/or FMC) indicating that the price is either fairly or very important in selection of brand**



**Source: London Economics analysis of Eurobarometer 385, June 2012 (here).**

Note: Sample sizes for FCT users in Estonia, Czech Republic, Romania, and Slovakia were small and are not shown above. In some cases, individuals may be FCT and FMC smokers and hence, observations are not unique.

In summary, the analysis demonstrates the fact that FCT consumption across EU Member States varies significantly. However, in addition, the analysis also illustrates that there are noticeable differences in the personal and socioeconomic characteristics of FCT and FMC consumers. In other words, **not all countries are the same and not all consumers are the same**. Notably, FCT consumers are typically lower-income and more price-sensitive. The next section details a number of economic foundations upon which our case study analyses are based.

### 3 What are the economics of tobacco taxation?

To understand some of the issues relating to tobacco taxation policy across the European Union, it is first crucial to understand some of the basic concepts underpinning any economic analysis of tobacco taxation, and in particular, to understand the incentives and constraints driving likely consumer behaviour.

#### Does raising tobacco duty increase government tobacco taxation revenues?

Holding all other factors constant, the (own-price) **elasticity of demand** for a good is the percentage change in the quantity demanded of a good (or service) following a given percentage change in the price. The elasticity of demand encapsulates the extent to which the demand for a particular good is responsive to changes in its own price. A good can be classified according to whether it is **elastic** or **inelastic**. If a good is *elastic*, then for a given change in price (e.g. 5%), quantity demanded will decline by *more* than 5% (e.g. 10%)<sup>2</sup>. If a good is *inelastic*, then for a given change in price (e.g. 5%), quantity demanded will decline by *less* than 5% (e.g. 3%)<sup>3</sup>.

What does this mean for taxation? Assuming that a particular product is price inelastic, if there is an increase in the level of taxation imposed on the product (suppose 5%), which results in an equivalent increase in price, then we would expect the quantity demanded to decline by less than 5%. However, from the government's perspective, even though there has been a decline in consumption, the level of taxation receipts generated per remaining unit of consumption has increased, thereby raising aggregate taxation receipts. Given these basic economic principles, and the assumption of price inelasticity, tobacco products have historically been seen as a ready source of potential government revenues.

However, there are two issues that can undermine this argument. The first relates to the fact that the estimate of elasticity of demand depends on whether we are considering a specific product (i.e. FMC) or a wider class of product (i.e. all tobacco products including domestic duty-paid FMC, domestic duty-paid FCT, cross border purchases of FMC and FCT, and illicit product). More precisely, although it is undoubtedly the case that demand with respect to *all* tobacco products is inelastic, given the availability of potential substitutes for *specific* tobacco products, the demand for domestic duty-paid tobacco products is more responsive to price (and hence elastic). As noted in a recent analysis undertaken by the Irish Revenue Commissioners, duty paid tobacco consumption is actually very responsive to changes in price (see box). As such, following an

*The Office of the Irish Revenue Commissioners (2011) analysed the link between consumption of taxed cigarettes in the Irish market and a range of anti-tobacco policy measures.*

*The Revenue Commissioners estimated the price elasticity of demand for duty-paid cigarettes to be -3.6, meaning that a 1% increase in price of duty paid cigarettes results in a 3.6% decline in duty-paid consumption.*

*The Revenue Commissioners noted that following price increases, there is a degree of substitution with individuals switching from taxed cigarettes to cigarettes **taxed outside of Ireland and untaxed cigarettes**. Since price increases cause consumption of taxed cigarettes to decrease and the consumption of untaxed cigarettes to increase, the authors recommended that taxation increases no longer be considered the optimal tool for smoking reduction.*

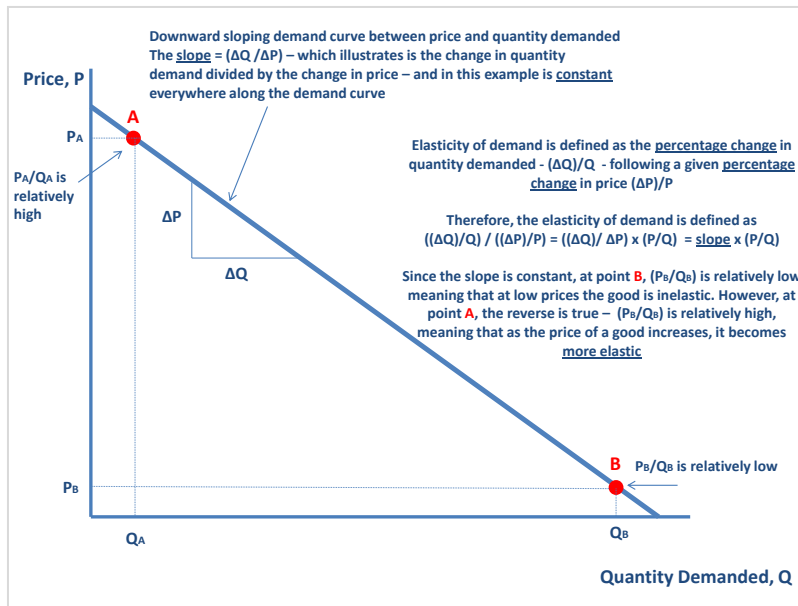
<sup>2</sup> In this case, the elasticity of demand in this case stands at -2.

<sup>3</sup> In this case, the elasticity of demand stands at -0.6.

increase in tobacco taxation, rather than increase government revenues, consumer switching activity to non-domestic duty paid tobacco products may actually result in a decline in government tobacco tax receipts and legal market distortion.

The second related issue is of a more technical nature - and related to the fact that often, the quantity demanded for a product becomes *more elastic* as the price increases.

Figure 10: An illustration of elasticity of demand



As illustrated using a simple example in Figure 10<sup>4</sup>, the elasticity of demand is generally dependent on the price being charged in the market under consideration.

When the price for the product is relatively low, the product is generally considered to be more inelastic; however, as the price increases, the good becomes more elastic (i.e. more responsive to changes in price as consumers seek alternatives).

The implication of this in relation to government tobacco taxation revenues is that as the level of duty increases on tobacco products, the extent to which these will result in an overall increase in tobacco taxation receipts will decline. In fact, it is entirely probable that ongoing increases in tobacco duties will result in deterioration in government taxation receipts.

### 3.1 What is the buffer function associated with Fine Cut Tobacco?

In economic terms, the **buffer function** associated with Fine Cut Tobacco builds on the concept of the **cross price elasticity** of demand.

The **cross price elasticity of demand** is the percentage change in the quantity demanded of one good following a given price change of another good. For example, in normal circumstances, domestic duty-paid FMC, cross-border purchased FMC, and illicit FMC are to some extent **substitutes** for each other. Therefore, one would expect an increase in the excise duty imposed on duty-paid FMC to *increase* demand for cross-border FMC and/or illicit FMC.

<sup>4</sup> Note that there are many possible negative relationships between price and quantity demanded - and in some cases it is possible that a demand curve has constant price elasticity of demand. However, for exposition purposes, we present the analysis using a standard downward sloping demand curve.

However, given the presence of domestic duty-paid FCT as an additional alternative to domestic duty-paid FMC, the maintenance of an excise duty differential between domestic FMC and FCT will encourage consumers of domestic duty-paid FMC faced with affordability constraints to switch to domestic FCT *rather* than purchasing cross-border FMC or illicit tobacco products. As such, FCT provides a **buffer function** between domestic duty-paid tobacco and cross-border or illicit tobacco products that generate no taxation revenue for the government. Given the responsiveness of duty-paid consumption to changes in price, maintaining a difference in excise duties between FMC and FCT acts to reduce the negative fiscal impact associated with raising duties on FMC, and hence protects the tobacco tax receipts that are accrued by the government.

Having presented some information on the economic theory underpinning the analysis, in the next section, we provide some concrete examples of various tobacco taxation policies that have been implemented in different European Union Member States. In each case study, the analysis demonstrates the impact of sharp increases in taxation policies on the incidence of cross-border shopping and illicit trade, as well as the buffer function of fine-cut tobacco in protecting the tax base and government revenues.



## 4 Case study: United Kingdom

The United Kingdom has imposed some of the **highest duties** on Fine Cut Tobacco (FCT) across the European Union. At the same time, the UK has experienced some of the most **significant levels of illicit trade** in FCT (as high as **62%** in 2004-05). Increased enforcement activities, combined with lower increases of the duties imposed on FCT, have resulted in a reduction in the level of illicit trade to its **lowest recorded level** of **35%** of total consumption in 2011-12. Alongside this, there has been an improvement in government FCT taxation receipts. However, since 2011-12, the trend in illicit trade has reversed, increasing to **39%** in 2013-14, with the associated tax loss rising from **£0.7 billion** to **£1 billion** over the corresponding period.

### Excise duty taxation policy changes over time

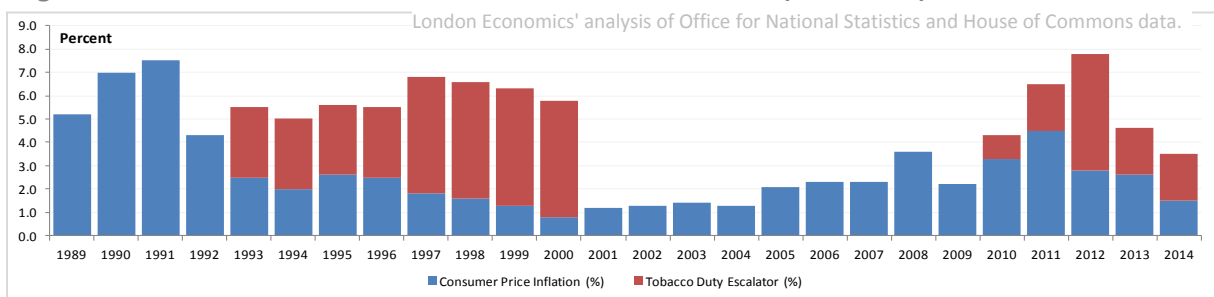
With the key objectives of both **reducing smoking prevalence** and **sustaining contributions to government revenues**<sup>5</sup>, the UK adopted an ‘escalator’ policy (between 1993<sup>6</sup> and 2000) to drive up the excise duty on tobacco products in **real terms**. Specifically, excise duties rose by **3%** more than inflation each year between November 1993 and November 1997 and by **5%** above inflation each year between November 1997 and March 2000.

*“I have decided to strengthen the commitment on tobacco duties that the Government have given in the past. I intend to increase tobacco duties on average by at least 3 per cent a year in real terms in future Budgets. I believe that the approach we are adopting in Britain is the most effective way to reduce smoking.”*

**Chancellor of the Exchequer  
November 1993 Budget Statement**

In the March 2001 Budget, the escalator policy was halted and taxes on tobacco products were **frozen** in real terms. This taxation slowdown continued – essentially unchanged – until 2010. During the period of the suspension (2001-02 and 2009-10), UK tax-paid consumption of FCT increased by approximately **8%** per annum. **This increase in UK tax paid FCT was largely a result of the decline in the level of illicit FCT** (from **61%** of total consumption in 2000-01 to **38%** in 2009-10)<sup>7</sup>. The tobacco duty escalator was re-introduced in March 2010 with excise duties increasing **1%** above inflation in 2010 and **2%** above inflation until 2014<sup>8</sup>. However, in the 2012 Budget, it was announced that duties would rise by **5%** above inflation<sup>9</sup>. In the 2013 and 2014, tobacco duties were increased by **2%** above inflation in each year with the Chancellor announcing (in the 2014 Budget) that the escalator would be extended throughout the current Parliament (i.e. beyond 2015).

**Figure 11: UK Consumer Price Index and tobacco tax escalator (1989-2014)**



These significant shifts in tobacco taxation policy have had substantial effects on the levels of illicit trade, and as a consequence, the level of government taxation receipts.

<sup>5</sup> HM Treasury. 2014. Budget 2014 - Tobacco duty rates. Available ([here](#)).

<sup>6</sup> Clarke, K. 1993. *Budget Statement*. 30 November. House of Commons, Transcript available ([here](#)).

<sup>7</sup> London Economics' analysis of *HMRC Measuring tax gaps 2013* ([here](#)).

<sup>8</sup> Darling, A. 2010. *Budget Statement*. 24 March, 2010. House of Commons, Transcript available ([here](#)).

<sup>9</sup> *Budget Statement*, 2012. House of Commons, Transcript available ([here](#)).

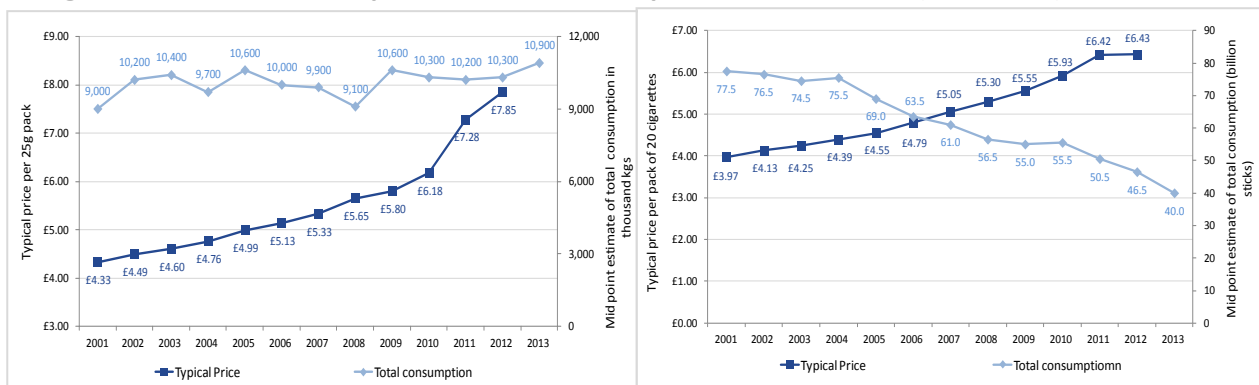
## What has happened to UK duty-paid FCT consumption over time?

*UK has some of the highest tobacco taxes in the world with huge profits to be made: a 40ft container of cigarettes has a revenue value of approx. £2.5m. [...] Evasion of tobacco duty is rated the highest risk in HMRC's Tax Compliance Risk Overview*

**Judith Kelly, HMRC Head of Tobacco Strategy, 2013**

Since 2001, the high level of UK tobacco taxation has resulted in a significant increase in the retail price of FCT (by approximately **81%** in nominal terms and **45%** in real terms (i.e. excluding inflation) between 2001 and 2012). Normally, from an economic perspective, *holding all other factors constant*, any increase in the price should result in a reduction in the quantity of duty-paid FCT purchased. However, the information presented in Figure 12 (left hand panel) shows that the total consumption of FCT has *increased* as well, although some of this increase is a result of decreases in the level of illicit and cross-border trade.

**Figure 12: Nominal retail price and total consumption of FCT and FMC (2001-2013)**



Notes: FCT presented in left panel; FMC presented in right panel. Prices of typical mid-price brand.

Source: Prices from Tobacco Fact Sheet 2013 (HMRC). Total consumption from Measuring tax gaps tables 2013 (HMRC). Consumption estimates refer to previous tax year. Note that price information is not available in 2013 as the series was discontinued. The estimate of total FMC consumption in 2013 is based on a mid-point estimate of illicit consumption equating to 4bn sticks (10% of total consumption)

Over the same period, purchases of (factory made) cigarettes declined by **26%**. Clearly, it is likely that tax increases have encouraged cessation or a reduction in consumption (alongside the full range of other anti-smoking policies); however, in addition to smoking cessation, some of the decline is likely to be attributable to individuals substituting to **lower taxed products, including FCT<sup>10</sup>**, as well as non-UK tax paid cross-border and **illicit contraband** and **counterfeit** cigarettes and FCT.

*Total FCT consumption demonstrated a small upward trend between 2001 and 2013 despite an increase of 45% in the price (adjusted for inflation) of duty-paid FCT.*

The increased enforcement activity implemented by the UK government since 2000, combined with the function of FCT as a buffer between the legal and the illicit tobacco market, explains in part why total consumption of duty-paid FCT **increased** between 2001 and 2013 despite substantial tax and price increases over the same period. However, although the level of illicit trade in FCT has fallen

<sup>10</sup> Note that the difference in the incidence of excise duties on Fine Cut Tobacco and Factory Made Cigarettes in the United Kingdom is relatively small, standing at approximately £4 per 1,000 sticks/ kg. In other words, the duties imposed on Fine Cut Tobacco are approximately 98% of those imposed on FMC

significantly over the period, the revenue losses to the government have remained stubbornly high and have started to reverse and increase in recent years (see next section).

### What has happened to illicit FCT consumption and tax receipts over time?

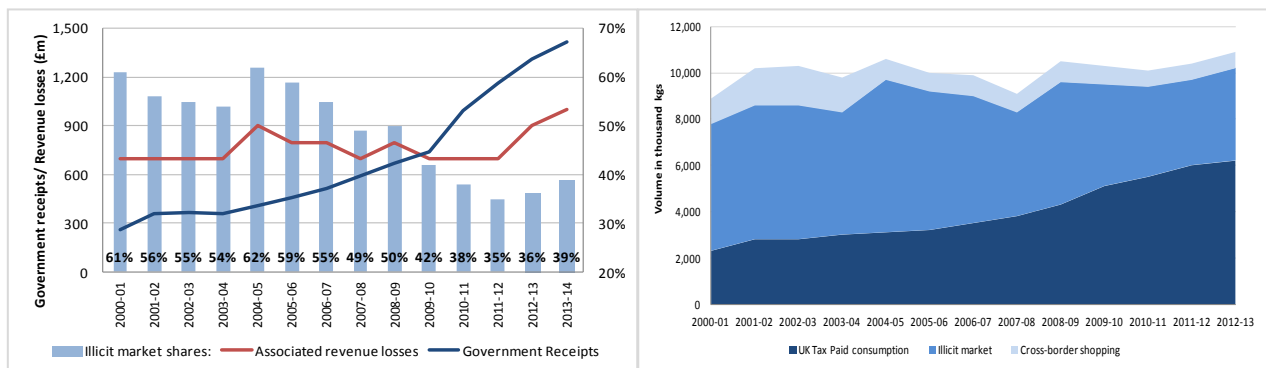
The UK has suffered from some of the highest levels of illicit trade over the last decade. At the time of the suspension of the tobacco duty escalator (2000-01), approximately **61%**<sup>11</sup> of total consumption of FCT was accounted for by illicit trade, with a further **12%** associated with cross border trade. Reflecting the inflation-only increase of FCT duties over the past decade, the level of illicit trade declined to its lowest level of **35%** in 2011-12 (with a further **6%** of consumption accounted for by cross border shopping).

*The tax gap is defined as the difference between the value of the tax that theoretically should be paid compared to the value of the tax and duties that is actually recovered.*

*The FCT tax gap in the United Kingdom declined from **£0.9 billion** in 2004-05 to **£0.7 billion** in 2011-12; however has more recently reversed and now stands at **£1.0 billion***

This decline in the level of cross border and illicit trade in FCT, alongside the increase in UK-duty paid consumption has resulted in **significantly increased tobacco taxation receipts** for the government (from **£200 million** in 2000-01 to **£1.1 billion** in 2013-14). However, despite this decline in illicit trade, it is important to note that the loss in government tax revenues has remained high (at approximately **£700-£900 million** between 2000-01 and 2011-12). This is driven by the fact that although the *proportion* of illicit trade has generally declined over the period, total consumption has increased leading to only a moderate decline (in absolute terms) of illicit FCT.

**Figure 13: Illicit market share/revenue losses and government tax receipts associated with FCT (2000-01 to 2013-14) and total FCT market breakdown (2001-02 to 2012-13)**



Note: The estimates shown in the graph represent HMRC midpoint estimates. Figures are rounded to the nearest 1% or £100 million. Revenue losses include both excise duty and VAT. Weighted Average Price (WAP) data for all UK duty paid hand rolling tobacco is not available prior to 2012-13, so tax gap losses are based on the price of a 'typical brand'. Source: HMRC, Measuring tax gaps 2013, 2014.

Clearly, there is a close relationship between the duties levied on tobacco products and the level of cross border and illicit trade. Since the re-introduction of the tobacco duty escalator in the UK, for the first time in a decade, the level of illicit FCT trade has increased again to **39%** in 2013-14 (up from 35% in 2011-12), with a corresponding increase in the FCT tax gap to **£1.0 billion** (up from **£700 million** in 2011-12). The continuation of the tobacco duty escalator is likely to place significant

<sup>11</sup> Note that all estimates presented relate to mid-point estimates contained in HMRC Measuring Tax Gaps official publications

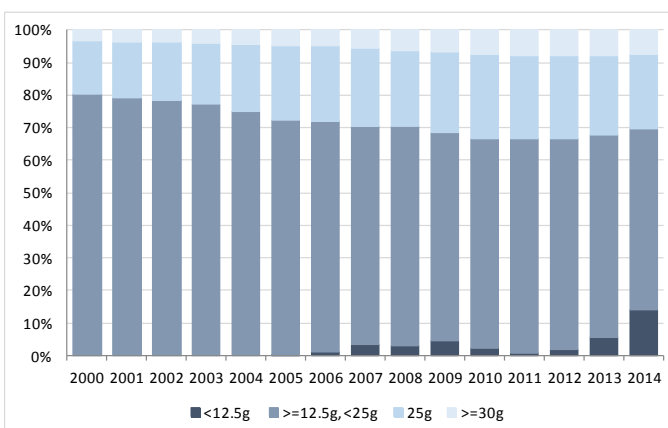
strain on the government's ability to reduce tax losses associated with cigarettes and FCT going forward.

## Future changes to the marketplace for FCT?

There are other important issues that may impact the levels of illicit trade and associated government taxation receipts in the future. Historically, the FCT market in the United Kingdom has been dominated by the sale of FCT in small pouches. From 2000 to 2004, approximately **96%** of FCT sold in the UK market occurred in pouch sizes that were less than 25g, with very small pouches accounting for a negligible share of the market (less than 1%).

Moreover, the trend of small pouch purchases has exacerbated since 2005 as a result of the growth of 10g pouches, which now account for approximately **14%**<sup>12</sup> of FCT pouches purchased in 2014 (an increase from less than **1%** in 2011). Over the same period, there has been a corresponding decline in the proportion of FCT pouches purchased weighing between 12.5g and 25g (from **65%** to **55%**).

**Figure 14: Pack size development UK HRT (% of packs sold) 2000-2014**



*London Economics' analysis of Nielsen RAL data (2000-2005), Nielsen Market Track data (2006-2014)*

Given the required changes in the UK market as a result of the 2014 Tobacco Product Directive (namely the introduction of the minimum 30g pouch size) that will affect more than **92%** of the current UK FCT market - and will potentially impact consumer out-of-pocket affordability - there may be some rationale in maintaining FCT duties at current rates in order to stifle the recent increase in illicit trade and maintain the UK tax base.

<sup>12</sup> Sources: Nielsen RAL (2000-2005), Nielsen Market Track (2006-2014)

## 5 Case Study: the Netherlands

### Key messages

Increases in FCT tax rates should be implemented in a gradual manner, and should reflect both the tax position of neighbouring countries and consumer purchasing power. Abrupt tobacco tax increases create a stronger stimulus for consumers to engage in illicit trade. Furthermore, when setting duty rates on tobacco products, national authorities need to take account of the duty rates in neighbouring countries. When domestic duties increase rapidly and differ markedly from those in neighbouring countries, a significant share of domestic consumption will be sourced abroad. Recent developments in the Netherlands demonstrate that these principles of FCT taxation have not been followed, resulting in a sharp decline of government tobacco tax receipts and market disruption.

*“Revenue proceeds from the increase in taxation tariff of the 1st of January 2013 on tobacco products are still significantly behind original expectations, for reasons, at least in part, relating to substitution and cross-border effects.”*

**HM Willem Alexander,  
Belastingplan 2014.**

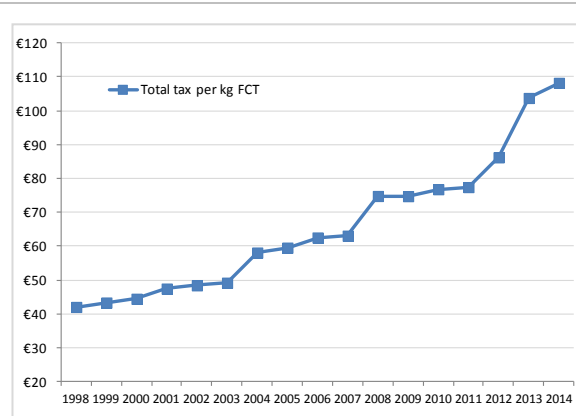
### Recent trends in taxation of tobacco products and tax revenues

The Dutch tobacco taxation policy over the last 15 years is characterised by three distinct phases:

#### **Moderate increase in taxation of FCT – 1998 to 2003**

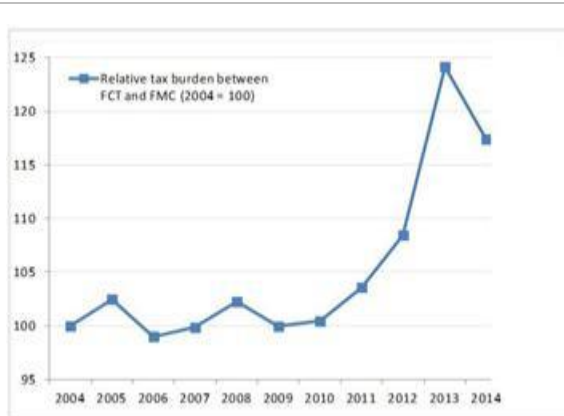
Between 1998 and 2003, the overall tax burden on a FCT increased relatively moderately, from approximately €42 per kg in 1998 to €49 per kg in 2003.

**Figure 15: Evolution of the tax burden on FCT (per kg), 1998 – 2014**



Source: Centraal Bureau voor de Statistiek (CBS), EC DG TAXUD

**Figure 16: Evolution of the relative tax burden of FCT relative to FMC - 2004-2014 (2004=100)**



Source: Centraal Bureau voor de Statistiek (CBS), EC DG TAXUD

#### **Occasional, more substantial increases in taxation – 2004 to 2012**

The government that came to power 2003 initiated a number of increases in tobacco duties over a four-year period (commencing in February 2004), in part due to the need to generate additional

taxation receipts and limit the budget deficit. However, in adopting this policy, the government was explicitly mindful that the “increases planned [should be] in line with the expected price development of neighbouring countries”<sup>13</sup>.

Subsequent governments in the Netherlands have continued to increase the level of taxation on tobacco products. In February 2007, the newly-formed centrist government further increased taxes on a range of products (including alcohol and tobacco) specifically to discourage consumption and promote public health<sup>14</sup>. These tax increases came into effect in July 2008<sup>15</sup>. Moreover, with the onset of the global financial crisis, *additional* taxation levies were imposed on a number of products including fuel, energy, alcohol, and tobacco<sup>16</sup> (including a doubling of the tax increase for FCT)<sup>17</sup>.

**Overall, over the period 2004 to 2012, the tax burden on FCT increased from approximately €49 per kg in 2003 to approximately €86 per kg in 2012 (Figure 15), corresponding to a 75% increase in less than a decade.**

In addition to a clear revenue-raising objective, the increase in FCT taxation was at least in part motivated by EU guidelines to tax all tobacco at proportionate levels<sup>18</sup> and, from 2004 to 2010, the increase in the tax burden on FCT largely mirrored the increase in the tax burden on FMC. In particular, indexing the relative taxation levels between FCT and FMC in 2004, **the relative tax burden on FCT remained broadly stable from 2004 to 2010 (i.e. within 2.5% of the 2004 level (Figure 16)).**

This stability in the relative tax burden ended in 2011 when the tax burden on FCT increased markedly compared to the tax burden on FMC (Figure 16), albeit from a lower base. However, in 2012, the tax burden of FCT increased proportionally more than the tax burden on FMC, reflecting a policy objective to reduce significantly the gap between the tax burdens on the two types of tobacco products.

### ***Changing the structure of tobacco taxation from 2013 onwards – substantial increases in tobacco taxation***

The most recent substantial increase in excise on tobacco products took place in January 2013<sup>19</sup>. With public health concerns being (again) the primary rationale for the taxation policy, the government implemented significant increases in the aggregate level of duties on FCT and FMC, and initiated a major shift away from the *ad valorem* tax and towards a specific (per kg or cigarette) tax<sup>20</sup>. Moreover, in 2013, the tobacco taxation policy aimed specifically to decrease the tax differential between FCT and FMC. **Consequently, overall, the tax burden on FCT increased by almost 26% from 2012 to 2014.**

<sup>13</sup> Miljoenennota 2004, p. 96. “Voor 2008 betreft het onder meer de invoering van de tabaksaccijns van € 0,46 per 1 februari 2004, waarmee gelijke tred wordt gehouden met de verwachte prijsontwikkeling in de ons omringende landen.” Available ([here](#)).

<sup>14</sup> Regeerakkoord, 2007. Available ([here](#)).

<sup>15</sup> Wijziging Wet op de accijns, Uitvoeringsregeling accijns en Douaneregeling, 2008. Available ([here](#))

<sup>16</sup> Belastingplan 2008. Available ([here](#))

<sup>17</sup> 31205 19 Amendement van het lid cramer. Available ([here](#))

<sup>18</sup> 31 205 Verslag van een Wetgevingsoverleg nr. 61, 2007. Available ([here](#))

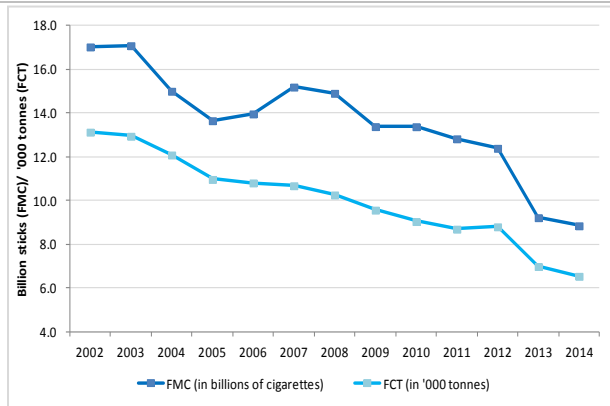
<sup>19</sup> Wijzigingen in de belastingheffing met ingang 1 januari 2013. Available ([here](#)).

<sup>20</sup> <http://www.rijksbegroting.nl/2013/kamerstukken,2012/9/20/kst173916.html>

## What has happened to Dutch duty paid FCT consumption over time?

A good indication of the evolution of duty-paid consumption of FCT (and FMC) is provided by the evolution of the volumes of FCT (and FMC) released into the market place and subject to duties.

**Figure 17: FCT and FMC releases for consumption, 1998 – 2014**



Notes: 2013 is the last year for which volume data are available from the source listed below.

**Source: 2002-2013 EC DG Taxation and Customs Union, EXCISE DUTY TABLES Part III – Manufactured Tobacco, REF 1042, January 2015, 2014 estimates**

While year-on-year changes in the volume of FCT (and FMC) released into the market place may include, at times, anticipatory releases ahead of increases in tobacco duties, the general trend displayed by such market releases provides a reasonable indication of the trend in the duty-paid FCT (and FMC) consumption.

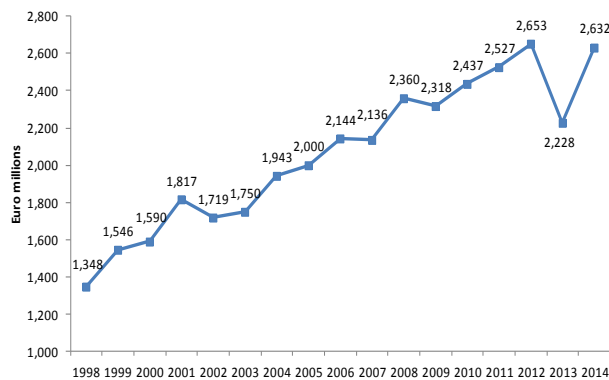
Consumption of duty-paid FCT declined more or less steadily from 2002 to 2012, showing a cumulative decline of **33%** over this period. Consumption of duty-paid FMC shows a broadly similar pattern and a cumulative decline of **27%** (Figure 17). **However, the gradual decline in duty-paid FCT observed until 2012 turned into an abrupt annual drop of 21% in 2013 and a further decline of 6.5% in 2014.**

The sharp drop in consumption of duty-paid FCT in 2013 reflects the consumers' response to the cumulative increase in FCT tax burden in 2012 and 2013, with some consumers reducing their FCT consumption or quitting smoking, while other consumers switching to FCT purchased legally cross-border and/ or illegal (smuggled or counterfeit) FCT. The tax burden on FMC also increased in 2013, and duty-paid FMC consumption declined sharply (by **26%** in 2013 and by a further **4%** in 2014). The smaller decline in duty-paid FCT than in duty-paid FMC in 2013 reflects in part the buffer function played by FCT. When the tax and price of FMC increased sharply, some consumers may have shifted down their consumption to the relatively less expensive (in absolute terms) FCT.

A detailed analysis by the Dutch Government of projections in tobacco tax revenues confirms that FCT played an important buffer role and that switching from FMC to FCT occurred (see *Supporting Material (page 18)*).

## What has happened to government tobacco tax revenues over time?

**Figure 18: Government tax revenues from tobacco products 1998 - 2014 (€ millions)**



**Source: Centraal Bureau voor de Statistiek (CBS).** Note that the information from CBS is 'actual' between 1998 and 2012. Information from 2013 and 2014 is provision and subject to revision (6, 12 and 30 months) after the calendar year in question. Note also that there are some differences in the CBS and EC DG TAXUD ([here](#)) estimates in 2013 and 2014.

From 1998 to 2012, government revenues from tobacco taxation increased more or less steadily and, in 2012, these revenues were almost twice as high as in 1998 (Figure 18). However, the general upward trend was reversed in 2013 with government tobacco tax revenues falling by **16%**. Following the substantial increase in the tobacco tax burden and the opening of a large differential in tax burden between the Netherlands and neighbouring countries, the decline in taxation revenues<sup>21</sup> reflects a combination of a decrease in tobacco consumption; an increase in legal cross-border trade; and an increase in illicit consumption.

### Conclusions

In the same way that markets for products operate within countries, the example of the Netherlands demonstrates the fact that markets also operate across national borders. Recent developments suggest that, when setting duty rate on tobacco products, national authorities need to be mindful and take account of the duty rates in neighbouring countries. Specifically, when domestic duty rates are increased rapidly, a significant share of domestic consumption may be sourced abroad with the inevitable consequence that domestic duty revenues are negatively impacted.

<sup>21</sup> Known as the Laffer curve in the economic literature



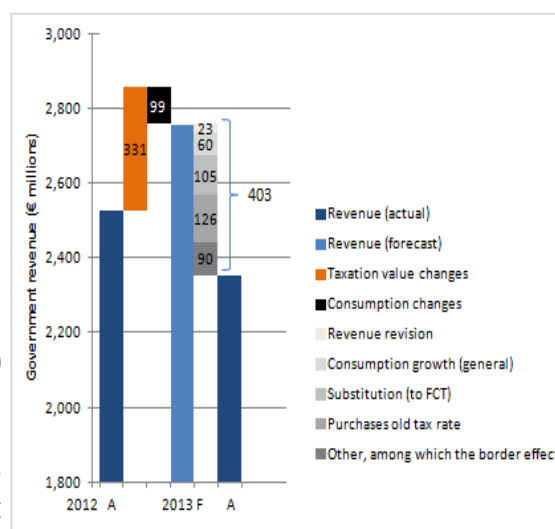
## Supporting material: Actual and forecasted 2013 revenues from taxation of tobacco products in the Netherlands

Detailed information from the Dutch government<sup>22</sup> on the forecast and actual tobacco taxation receipts in 2012 and 2013 is provided in Figure 19. Based on actual tobacco taxation receipts in 2012 (**dark blue** column), the 2013 budget forecast is generated (in the **light blue** column) based on expectations of enhanced taxation receipts from duties (in **orange**), minus changes in consumption (in **black**).

The analysis suggests that increases in taxation duties were *expected* to raise an additional **€332 million** for the Dutch government in 2013. This consisted of an additional €331 million in gross taxation receipts (under unchanged consumption), offset by approximately €99 million resulting from changes in consumption levels and patterns.

However, compared to expectations, there was a **€403 million** shortfall in actual tobacco taxation revenues collected (compared to forecasts). Of the **€403 million** shortfall in revenues, the Dutch Financial Secretary estimated that approximately **€60 million** was associated with a reduction in consumption levels, **€105 million** was associated with a switch to FTC within the Netherlands<sup>23</sup>, **€126 million** was associated with producers releasing product into the Dutch market ahead of the effective date for duty increases, and **€90 million** associated with cross border jurisdictions trade<sup>24</sup>.

Figure 19: Development of the tobacco tax revenue in the Netherlands (2012-2013)



<sup>22</sup> <http://www.rijksbegroting.nl/2008/voorbereiding/begroting,kst110193.html>

<sup>23</sup> While the relative tax burden of FCT in 2013 had returned to the level of 1998 following the sharp increases in FCT taxation in 2012 and 2013, overall FCT yielded lower revenues than FCM in 2013.

<sup>24</sup> The remaining €23 million was associated with a methodological revision to the data. Source: Grenseffectenrapportage, 2013. Available ([here](#)).

## 6 Case study: Germany

### Key messages

In 2010, learning from the costly excise mistakes of a decade in which it had sought to increase tobacco revenues to fund headline initiatives, the German government adopted a predictable long-term tobacco excise policy. This policy **balanced** fiscal and public health objectives, **increased government revenue**, and **reduced non-German inflow** while also **decreasing overall consumption**. Moderate fine-cut tobacco taxation has played an important role in this turnaround.

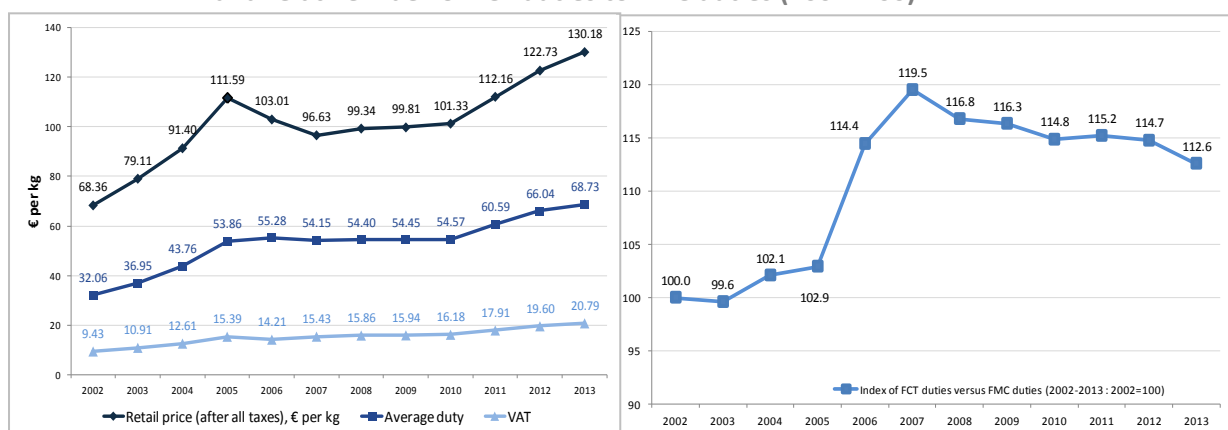
### Evolution of tobacco excise duties in Germany

Over the last 15 years, it is possible to distinguish between **three broad phases of tobacco taxation policy** implemented by the German Federal Ministry of Finance since 2002. This information is presented in Figure 20.

#### 2002 and 2005: Strong upwards adjustment

Following the September 11 terrorist attacks, the German government announced tobacco excise increases to finance the war on terrorism. In January 2002, the average excise burden for FMC was raised by **14%**, while the burden for FCT increased by **21%**. In 2003 the government increased the excise burden again, with a **10%** increase in excise on cigarettes and a **14%**<sup>25</sup> increase in excise on FCT. In 2004 and 2005, the government announced further excise increases, leading to a three-step increase of €1 per pack (for 19 cigarettes and 40g of fine-cut) over just 18 months, this time in order to finance health care reforms.

Figure 20: Average duties, VAT rates and retail price of FCT Germany since 2002 (€ per kg) - and relative index of FCT duties to FMC duties (2002=100)



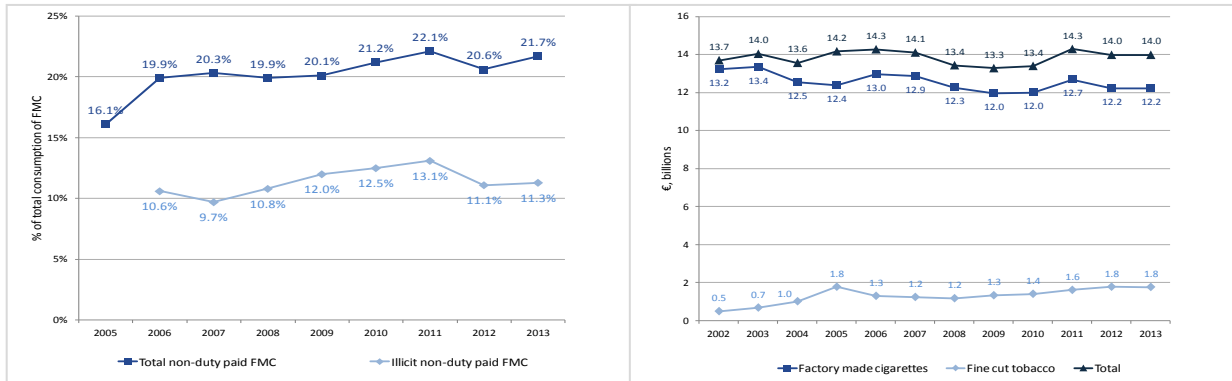
Note: FCT presented in left panel with the index of FCT duties to FMC duties in the right panel (2002=100). Average duty includes the specific and ad valorem duty, but excluding value added tax per cigarette or kg of fine cut tobacco, and is calculated by dividing total taxable value by the number of duty paid cigarettes / duty paid kg of fine cut tobacco. Values for each year incorporate any revisions based on the following year's publication. Numbers of 2013 are based on preliminary estimates. **Source: London Economics' analysis based on Statistisches Bundesamt (2013) and Bundesfinanzministerium (2006).**

The result of these changes in excise duties is presented in Figure 20 (right panel), which demonstrates a **20%** increase the relative level of excise duties on Fine-cut tobacco relative to FMC

<sup>25</sup> Statistisches Bundesamt (2002), Fachserie 14, Reihe 9.1., 4 Vj und Jahr 2002

between 2002 and 2007. However, the result of these excise increases was the opposite of what had been intended: specifically, resulting from the increase in the prevalence of non-domestic duty paid and illicit tobacco, FCT tobacco excise revenue in 2006 was **27%** below than that of 2005 (see Figure 21).

**Figure 21: Consumption of non-duty paid cigarettes as a % of total, 2005 – 2013, and Tax receipts from duties on FMC and FCT, 2002 - 2013**



Note: Illicit consumption captures either contraband cigarettes or counterfeit cigarettes. Estimates of total non-duty paid cigarettes are based on Deutscher Zigarettenverband (2014); estimates of counterfeit and contraband cigarettes are based on KPMG (2014). For consumption of illicit non-duty paid cigarettes, no estimates are available from the Deutscher Zigarettenverband prior to 2006. **Source: London Economics' analysis of Deutscher Zigarettenverband (2014) and KPMG (2014).** Note: Tax receipts net of public expenditures. Values for each year incorporate any revisions based on the following year's publication. Numbers of 2013 are based on preliminary estimates. **Source: London Economics' analysis of Statistisches Bundesamt (2013).**

As previously mentioned, part of the explanation for this reduction in taxation receipts was as a result of a flood of tobacco products from other countries (both legal cross-border shopping and illicit trade) entering the German market. The market share of these “non-German” products increased from around **6%**<sup>26</sup> in 2001 to **16.1%** in 2005. At the same time, many German consumers switched to a new product category “pre-portioned fine-cut tobacco”, which were tobacco rods that were inserted into paper tubes for smoking, but which were at the time taxed as fine-cut tobacco. Within three years (2002 to 2005), the duty-paid cigarette market had decreased by one-third, equivalent to 50 billion sticks. Sales of FCT – including pre-portioned tobacco – doubled in this period (an increase of 18,000 tonnes<sup>27</sup>).

Despite all excise increases, overall government tobacco excise revenue remained flat or decreased. The price elasticity of demand amongst German consumers had reached a point at which increases in the rate of excise had a negative, rather than positive, impact on excise revenue. The last significant excise increase occurred in September 2005.

### 2006 to 2011: Duty stability

Learning from this failed tobacco excise policy, Germany kept the headline tobacco excise rates unchanged from 2006 to 2010, raising only the minimum excise rate in January 2006. Initially, this was successful: the inflow of foreign products stopped increasing and revenue stabilised.

In March 2006 the European Court of Justice<sup>28</sup> determined that pre-portioned tobacco must be taxed as cigarettes – effectively eliminating this subcategory of FCT. As a result, the fine-cut tobacco

<sup>26</sup> Figures based on Reemtsma/ ITG estimates

<sup>27</sup> Note that 1 kilogramme of FCT is comparable to 1,000 FMC sticks, so 18,000 tonnes is equivalent to 18 billion sticks

<sup>28</sup> Judgment in case C-197/04 dated 10 November 2005

market dropped by one third (10,500 tonnes (equivalent of 10.5 billion sticks)). However, these consumers did not re-enter the market for German cigarettes, which dropped by 2 billion sticks in 2007, and a further 3.5 billion sticks in 2008. **It appears that pre-portioned tobacco acted as a “buffer” function that kept many smokers in the German duty-paid market.** The changing tax arrangements relating to pre-portioned tobacco (and subsequent increase in cross-border and illicit trade) therefore contributed to a further decrease in tax revenues between 2006 and 2007.

In response, the German government froze excise rates between 2007 and 2008. However, at the beginning of 2008, Germany’s neighbours, Poland and the Czech Republic, joined the Schengen agreement. The subsequent removal of border controls with these countries was highly significant, because although German cigarettes were more affordable in relation to domestic consumer incomes in Germany than elsewhere in Europe, the price differentials to neighbouring countries still offered German consumers a good deal – at least for the large share of the German population that lived within 100km of the borders, where incomes are generally lower than the average. Increased cross-border shopping was therefore the obvious consequence. The share of non-domestic products in the German market increased markedly, from its 2005 level of **16.1%** to a “new normal” of **20%** or higher. Between 2008 and 2010 excise revenues fell below 2002 levels.

### **2011 to present: The Tobacco Duty Model**

The *Fünftes Gesetz zur Änderung von Verbrauchsteuergesetzen* (Fifth Act on Excise Amendments, (2010)) introduced the *Tabaksteuermodell* (Tobacco Duty Model). This implementation of the Tobacco Duty Model aimed to provide greater long term certainty to German tobacco excise policy through the adoption of **moderate increases** in excise duties over a **five-year period**. This approach was applied for both cigarettes and fine-cut tobacco between May 2011 and January 2015.

The changes in fine-cut tobacco excise were, in percentage terms, larger than the respective increases in cigarette duties, although from a lower base. These changes specifically targeted the price differentials between fine-cut tobacco and cigarettes, in order to calibrate price levels that, on the one hand discouraged consumer switching from cigarettes to cheaper fine-cut products, but on the other hand offered a less expensive legal alternative for lower income consumers. This policy established fine-cut tobacco as a buffer between expensive duty-paid and cheap non-German imports.

Following the introduction of the Tobacco Duty Model, average duty levels have increased annually by around **2%** without any increase in non-German products. Critically, this has led not only to an **increase in excise revenue**, but also to **continued declines in consumption** of around **3%** per year in all tobacco product categories, in line with the German government’s health objectives.

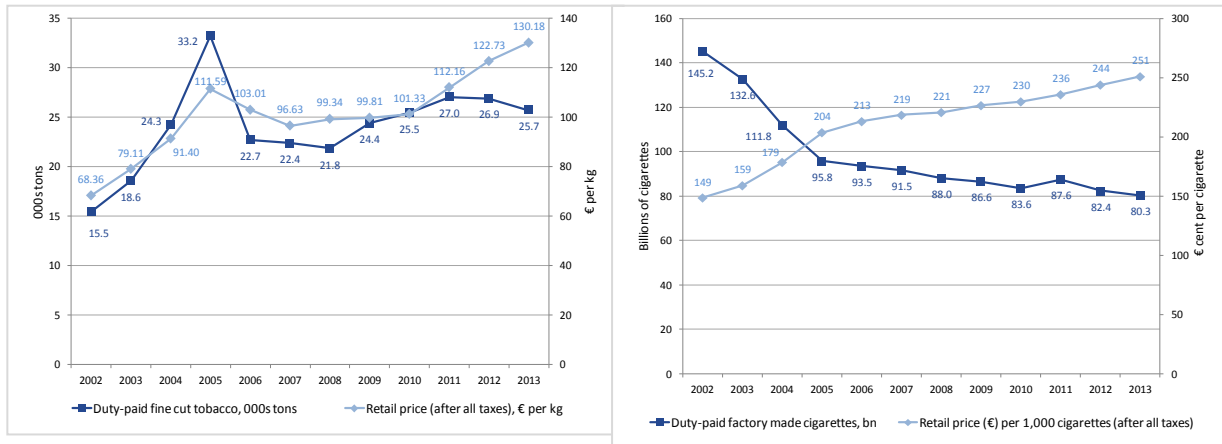
### **The buffer function of fine-cut tobacco**

While the new five year policy of excise stability proved successful at both stabilising and growing overall tobacco excise revenue, another trend also became apparent. Between 2002 and 2013, the size of the market for duty-paid cigarettes had decreased by **65 billion** sticks (**45%**)<sup>29</sup> and purchases of non-German cigarettes had grown to **22 billion** sticks<sup>30</sup>. Whilst the total tobacco excise revenue in 2013 was **€0.3billion** above 2002 levels, revenue from FMC was around **8%** lower (**€1 billion**) – indicating the important role being played by fine-cut tobacco.

<sup>29</sup> Statistisches Bundesamt (2014). 'Finanzen und Steuern. Arbeitsunterlage zu den Verbrauchssteuerstatistiken' ([here](#))

<sup>30</sup> Result based on calculation using DZV figures of Ipsos *Yellow Bag* Survey (Ipsos Entscheidungsstudie) ([here](#))

Figure 22: Retail prices and consumption of duty paid FMC and FCT, 2002 - 2013



Note: Consumption of duty-paid FMC and FCT. Values for each year incorporate any revisions based on the following year's publication. Numbers of 2013 are based on preliminary estimates. Note that the significant increases in FCT volumes are in part due to the increase in take up of so called pre-portioned tobaccos. According to estimates by the German Ministry of Finance, the volumes for pre-portioned tobaccos (included within FCT) in Germany increased from 1,000 tonnes in 2002 to approximately 18,500 tonnes in 2005. Since April 2006 pre-portioned tobaccos have been taxed as cigarettes (see judgement under C-197/04). Even excluding these volumes from the FCT series, between 2002 and 2013, the total volume of FCT increased from 14,500 tonnes in 2002 to 25,700 tonnes in 2013. **Source: London Economics' analysis of Statistisches Bundesamt (2013) and Statistisches Bundesamt (2014a).**

Historically, excise rates on fine-cut tobacco had followed the same trend as cigarette taxation. However, as FCT started from a lower base, these increases were larger in proportional terms. Between 2002 and 2013, FCT excise **doubled** while cigarette taxation increased by around **70%**. In terms of retail prices, FCT remained at around half of the price of cigarettes over the decade.

Fine-cut tobacco sales increased steadily, by 11 thousand tons, between 2002 and 2013 (from 15,000 to 26,000 tons). This is equivalent to around 11 billion sticks. Government excise revenue from FCT more than tripled, over-compensating for any loss from cigarettes. Indeed a comparison of the growth of fine-cut sales with the size of the decrease of the duty-paid cigarette market (65 billion sticks) clearly indicates that **there is some substitution between cigarettes and fine-cut tobacco**. However, the size of the non-German cigarette inflows (22 billion sticks) indicates that there is also **substantial substitution between German duty-paid and non-German cigarettes**.

Without the existence of excise differentials between cigarettes and fine-cut tobacco, which feed into retail-price differentials, the share of the market represented by non-German inflow would be significantly higher. Without the increase in FCT sales volume, government excise revenue in 2013 would be lower than in 2002.

## Conclusions

It seems that the German government has now managed to strike a successful balance between its fiscal and public health objectives. Crucially, it does this without offering sufficient incentives to existing cigarette smokers to switch from cigarettes to fine-cut tobacco. Modest excise increases, combined with a price differential between FMC and FCT mean that German excise revenues remain stable *both* when consumers who are priced out of the legal market choose to quit smoking, *but also* when they continue to choose to smoke – as the buffer function of fine-cut tobacco now offers them a legal, and excise-generating, alternative.

## 7 Conclusions for policy

Based on evidence from a number of national statistical agencies and the European Commission, the London Economics' analysis indicates that **abrupt and sharp increases in tobacco taxation can create strong incentives for consumers to change their purchasing behaviour**. This has been demonstrated to increase the incidence of cross-border duty-paid purchases, but also the prevalence of illicit tobacco.

**Reflecting the fact that FCT consumers are typically lower-income and more price-sensitive than FMC consumers, fine-cut tobacco provides an important buffer function** between domestic duty paid tobacco and both cross-border trade and the illicit market. By maintaining differential tax rates between Fine-cut tobacco and Factory-made cigarettes, the domestic duty-paid FCT market acts to preserve the tax-base and maintain government taxation receipts.

Increases in the tax rates applied to fine-cut tobacco should be implemented in a gradual manner in a way that acknowledges both **consumer affordability issues**, but also the availability of **domestic substitutes, cross border purchases**, and the **prevalence of illicit tobacco products**.

## Additional Material

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## Glossary

### Terminology abbreviations

Term	Description
<b>FCT</b>	Fine-cut tobacco
<b>FMC</b>	Factory-made cigarettes
<b>MYO</b>	Make your own
<b>HRT</b>	Hand rolled tobacco

### Member State codes

BE	Belgium	LT	Lithuania
BG	Bulgaria	LU	Luxembourg
CZ	Czech Republic	HU	Hungary
DK	Denmark	MT	Malta
DE	Germany	NL	Netherlands
EE	Estonia	AT	Austria
IE	Ireland	PL	Poland
EL	Greece	PT	Portugal
ES	Spain	RO	Romania
FR	France	SI	Slovenia
HR	Croatia	SK	Slovakia
IT	Italy	FI	Finland
CY	Cyprus	SE	Sweden
LV	Latvia	UK	United Kingdom



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