



# The New Tobacco Products Directive – Potential Economic Impact

Potential Effects of Plain Packaging



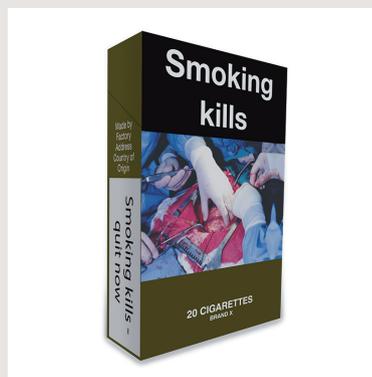
## The European Parliament is currently discussing new restrictions to add to the Commission's proposal for a new TPD, including the implementation of plain packaging

On December 19, 2012, the European Commission adopted a proposal for a significantly revised new Tobacco Products Directive<sup>1)</sup> (new TPD). Among other things, the proposal includes a ban on slim cigarettes, a ban on menthol cigarettes, large health warnings covering 75% of the front and back panels of packets, mandatory shapes, format and dimensions for tobacco packaging, and further restrictions on product descriptions and brand differentiation. The potential impact on jobs and tax revenue of these policy interventions was analyzed in our study "The New Tobacco Products Directive – Potential Economic Impact". We estimated that these measures would lead to a drop in cigarette prices of up to 3%, a decline in legally sold cigarettes and cigarette stick equivalents of up to 4%, a growth in the illicit market of up to 55%, job losses reaching 175,000 and a fall in tax revenue of up to EUR 5 bn in the EU.

As part of the Ordinary Legislative Procedure, both the European Parliament and the Council of Member States will discuss amendments to the new TPD before voting on its final adoption. In this context, the Rapporteur for the new TPD from the Environment, Public Health and Food Safety Committee of the European Parliament published a draft report at the end of March 2013 which approves most measures proposed by the Commission and also introduces additional restrictions, including mandatory plain packaging for cigarettes and fine-cut tobacco.

Plain packaging, also known as "standardized" or "generic" packaging, bans all branding, colors or logos on tobacco product packaging other than the brand name and variant, which may only be printed on specified locations on the pack in a uniform typeface. All tobacco packaging must use the same defined color and carry the mandatory health warning labels.

FIGURE 1: MOCK-UP OF PACK DESIGN UNDER PLAIN PACKAGING RESTRICTIONS



Source: PMI

**This study estimates that if plain packaging is included in the new TPD, a total of 305,000 jobs and EUR 8.5 bn in tax revenue are at stake**

Figure 2 compares the impact of the new TPD on jobs and tax revenue under the three scenarios of our study "The New Tobacco Products Directive – Potential Economic Impact", together with our estimates of the potential effects of plain packaging. It should be kept in mind that part of the potential reduction in brand value will take place gradually. The full effect of plain packaging, therefore, is likely to materialize over a few years after its introduction.

FIGURE 2: MODEL RESULTS FOR THREE DIFFERENT SCENARIOS FROM OUR MAIN STUDY AND ESTIMATION OF THE POTENTIAL IMPACT OF THE COMMISSION'S PROPOSAL FOR A NEW TPD PLUS PLAIN PACKAGING BASED ON THE ELEVATED SCENARIO OF OUR MAIN STUDY

POTENTIAL IMPACT	Evaluation of Commission's proposal for a new TPD			Elevated Scenario + Plain Packaging
	Conservative Scenario A	Conservative Scenario B	Elevated Scenario	
Lost jobs [# jobs]	~70,000	~105,000	~175,000	~305,000
Loss in tax revenue [EUR bn]	~2.2	~3.4	~5.0	~8.5

Source: Roland Berger analysis

Plain packaging is estimated to cost about 130,000 additional jobs on top of the 175,000 estimated in the Elevated Scenario without plain packaging. In total, the new TPD with plain packaging could lead to job losses of 305,000 in the EU. With regard to tax revenue, we estimate that plain packaging has the potential to lower tax revenue by an additional EUR 3.5 bn beyond the losses brought about by the Commission's proposal for a new TPD (without plain packaging). The new TPD with plain packaging would thus lead to an estimated EUR 8.5 bn loss in tax revenue in the EU.

The reason behind these increased losses is that plain packaging could lead to an additional drop in cigarette prices by 3% beyond the effects triggered by the Commission's proposal for a new TPD. The premium segment is estimated to shrink by an additional 1.6% and the below-premium segment could decline by another 1.2% in terms of cigarette sticks sold, compared to the outcome resulting from the Commission's proposal for a new TPD (i.e. without plain packaging).

The illicit market is also likely to grow as a result of plain packaging as counterfeiting becomes significantly easier<sup>2)</sup> and consumers' willingness to consider purchasing their preferred product from black market sources will increase in a commoditized tobacco market.<sup>3)</sup> We estimate that the illicit market could increase by about 6% in addition to the situation in our Elevated Scenario without plain packaging.<sup>4) 5)</sup> This would result in a 65% total increase of the illicit market, from 68 bn sticks to about 113 bn sticks (Elevated Scenario plus plain packaging).

### **We combine estimates of consumers' willingness to pay with the industry's potential adaptations in pricing and consumers' likely product substitution behavior to develop our estimate of the additional effects of plain packaging on jobs and tax revenue in the EU**

For our analysis, we differentiate between three tobacco market segments, namely premium cigarettes, below-premium cigarettes and illicit cigarettes.<sup>6)</sup> Based on changes in the composition of these market segments caused by plain packaging, we derive changes in tax revenue. Direct employment effects are calculated based on the value added in each market segment. Indirect employment effects resulting from losses in tax revenue are also taken into account.<sup>7)</sup>

We use the so-called Elevated Scenario from our study "The New Tobacco Products Directive – Potential Economic Impact" – the scenario describing higher potential effects of the new TPD – as the starting point.<sup>8)</sup> Since plain packaging increases the potential effects of the new TPD on jobs and tax revenue, this approach helps us to determine the potential reach of those effects beyond the impact triggered by the Commission's proposal for a new TPD.

## **Recent empirical literature enables us to quantify the potential decrease in consumers' willingness to pay for unbranded versus branded cigarettes**

At this stage, it is not possible to base an assessment of plain packaging on direct evidence. The recent introduction of plain packaging in Australia, adopted in December 2012, has not yet been evaluated with empirical methods. However, lab experiments on consumer behavior enable us to derive rough estimates of the potential additional effects of plain packaging on jobs and tax revenue. A more comprehensive impact assessment – based on direct evidence and adopting simulation-based or econometric methods – is beyond the scope of this study.

In their paper "Estimating the impact of pictorial health warnings and 'plain' cigarette packaging: Evidence from experimental auctions among adult smokers in the United States", Thrasher et al.<sup>9)</sup> compare the willingness to pay for cigarettes in two situations similar to the ones we currently face with the potential amendment to the new TPD. Building on the results of Thrasher et al., we estimate that plain packaging lowers consumers' willingness to pay for premium and below-premium legal cigarettes by 6%, uniformly across consumer types.

Since companies are likely to react to some extent to the change in consumers' willingness to pay and the changing market environment, we consider a 3% drop in prices in all segments would be a realistic benchmark, about half of the decrease in consumers' willingness to pay for cigarettes.<sup>10)</sup> This will likely lead to downtrading – the substitution of premium cigarettes with below-premium cigarettes – as well as an increase in illicit trade. As a result, the number of cigarettes sold is estimated to fall by 1.6% in the premium segment and 1.2% in the below premium segment.<sup>11) 12)</sup>

## **A comprehensive impact assessment of the new TPD including plain packaging is needed before such a measure is adopted, using a model-based, quantitative methodology to assess the effects of plain packaging**

In order to develop a comprehensive impact assessment of the potential economic impact of plain packaging, several additional aspects would need to be considered that are not within the scope of the estimates presented in this paper.

As discussed in our study "The New Tobacco Products Directive – Potential Economic Impact", a "more economic approach" in policy regulation would require EU policy makers to show that plain packaging is:

- > Effective in reducing smoking prevalence, smoking initiation rates, as well as smoking intensity (the number of cigarettes smoked per capita)
- > An efficient way of achieving these goals. In particular, it needs to be demonstrated that there are no other effective measures that have less severe economic and fiscal side effects

### **Plain packaging should be evaluated according to the standard defined in the European Commission's Impact Assessment Guidelines**

The planned policy measures should help achieve predefined health goals without harming tax revenue and the economy – for example by weakening intellectual property rights of tobacco manufacturers – at least not more than necessary.

Below are some key elements that policy-makers need to evaluate as part of such an impact assessment:

- > Changes in price elasticities, willingness to pay, and cigarette demand across different price segments due to plain packaging
- > Effects of plain packaging on sales (and therefore on tax revenue), including the possibility of downtrading and substitution of legal cigarettes with illicit cigarettes
- > Changes in market competition and reconsideration of companies' pricing strategies – including the possibility of price cuts due to increased price competition
- > Potential increases in legal and illegal cross-border distance sales
- > Incentives for market entry of new legal, low-price brands

A model-based, quantitative methodology to assess the impact of plain packaging before adopting such a measure is crucial. Results of a thorough empirical policy evaluation of the Australian plain packaging experiment could serve as a basis for a decision in favor of or against such a far-reaching regulatory policy change.

## Endnotes

- 1) Proposal for a Directive of the European Parliament and of the Council on the approximation of the laws, regulations and administrative provisions of the Member States concerning the manufacture, presentation and the sale of tobacco related products, COM (2012)788 final, European Commission, Dec 19, 2012
- 2) The firm Saueressig – a leading specialist in printing and packaging – conducted an experiment in which they tried to counterfeit regular cigarette packs and Australian-style plain cigarette packs. Saueressig concluded that it is easier, cheaper, quicker and less risky to counterfeit plain cigarette packs (Statement on Plain Packaging and Counterfeit Tobacco Products. Saueressig, March 27, 2013)
- 3) The impact of standardized packaging on the illicit trade in the UK. SKIM, August 2012
- 4) Overall cigarette demand is assumed to remain unchanged. This presumes that lower cigarette demand due to lower willingness to pay is offset by a combination of (1) lower cigarette prices, (2) downtrading, i.e. purchase of more affordable legal cigarettes, and (3) shifts in consumer demand towards the (cheaper) illicit market
- 5) This estimate is likely to be very conservative in light of the experimental results from SKIM on plain packaging in the UK (The impact of standardized packaging on the illicit trade in the UK. SKIM, August 2012), where about 19% of the smokers of legal cigarettes shift to the illicit market after plain packaging is introduced
- 6) Since we have no empirical evidence of how the fine-cut segment would be influenced by plain packaging, and due to the fact that effects on cigarettes will be much more pronounced, we disregard fine-cut in the estimation described in this companion study
- 7) For a more detailed explanation of employment effects, please refer to chapter 3.3 of our study "The New Tobacco Products Directive – Potential Economic Impact"

- 8) In our study, we provide three different scenarios for a potential range of the expected impact on jobs and tax revenue from the new TPD. These scenarios are based on the policy measures of the Commission's proposal for a new TPD, focusing on the ban on slim and menthol cigarettes as well as on pack standardization
- 9) Thrasher, J.F. et al.: Estimating the impact of pictorial health warnings and "plain" cigarette packaging: Evidence from experimental auctions among adult smokers in the United States. *Health Policy* 102, 2011, pp. 41-48
- 10) As the illicit market is already expected to use rather aggressive pricing in light of pack standardization measures under the Commission's proposal for a new TPD (in order to sacrifice margins for market share), we assume that there is no additional effect of plain packaging on prices in the illicit market. Illicit market share gains result only from further increased product homogeneity (commoditization) and lower (relative) attractiveness of legal cigarettes
- 11) These results are partly based on the patterns (distributions) of the willingness to pay of consumers as reported in Thrasher et al.
- 12) By way of comparison, if we estimate that companies lower prices by exactly as much as consumers' decrease in willingness to pay for premium and below-premium legal cigarettes, i.e. by 6%, this would lead to an additional 16-37% in losses compared to the results reported in figure 2

## Attribution/disclaimer

Roland Berger Strategy Consultants prepared the study "The New Tobacco Products Directive – Potential Economic Impact" as well as this additional estimation of the effects of plain packaging for, and at the request of, Philip Morris International Management S.A. All judgments and opinions expressed in the studies are those of the authors.

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