The New Tobacco Products Directive – Potential Economic Impact

Study synopsis

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PREFACE

Roland Berger Strategy Consultants has been commissioned by Philip Morris International (PMI) to assess the potential economic impact (i.e. employment and tax revenue) of the following key measures to be introduced under the new Tobacco Products Directive (TPD):

1. The new packaging and labeling requirements that may lead to high levels of standardization,

2. The ban on slim cigarettes, i.e. cigarettes with a diameter of less than 7.5 mm, and

3. The ban on menthol cigarettes resulting from restrictions on additives.

Our study focuses on these three measures as we view them as likely to have the most significant quantifiable impact. There are potential additional effects on employment and tax revenue which have not been quantified as part of this study.

The EU tobacco sector is a major driver of jobs and tax revenue

We estimate the cigarette and fine-cut tobacco sector in the EU27 – including suppliers and retailers – to account for more than 600,000 jobs (i.e. employees on full-time and part-time schedules – excluding seasonal workers). This is a conservative estimate. Others, including the European Commission, have calculated much higher figures, some of them exceeding one million jobs. Moreover, the sector generated tax revenues (i.e. tobacco taxes and VAT) of more than EUR 100 bn in 2012.

EU tobacco sector:
> More than 600,000 jobs
> More than EUR 100 bn in annual tax revenues

The new TPD will have a major impact on the tobacco sector

Packaging and labeling standardization is likely to reduce consumers' value perception, which is influenced by strong brands and high degrees of product differentiation. This will increase pressure on prices, shifting demand towards lower priced products sourced from either the legal or the illicit (black) market.

Price competition will reduce prices across all tobacco market segments. As a result, demand for cigarettes and fine-cut is expected to increase by up to 2% – an unintended consequence of standardizing the appearance of cigarette packs.

With the ban on slim and menthol cigarettes, those consumers with a strong preference for these products will potentially turn to the illicit market. In total, the black market is expected to grow by 25-55%.

Significant losses in jobs and tax revenue are expected

Up to 175,000 jobs could be lost in the EU, not counting seasonal workers. This number includes direct employment effects in the tobacco sector – mainly due to the shrinking legal cigarette and fine-cut market – as well as indirect employment effects brought on by the tax losses. The drop in tax revenue ranges from a conservative estimate of EUR 2.2 bn to an elevated estimate of EUR 5.0 bn for the EU27.

FIGURE 1: STUDY FINDINGS [SCENARIO DESCRIPTION ON PAGE 6]

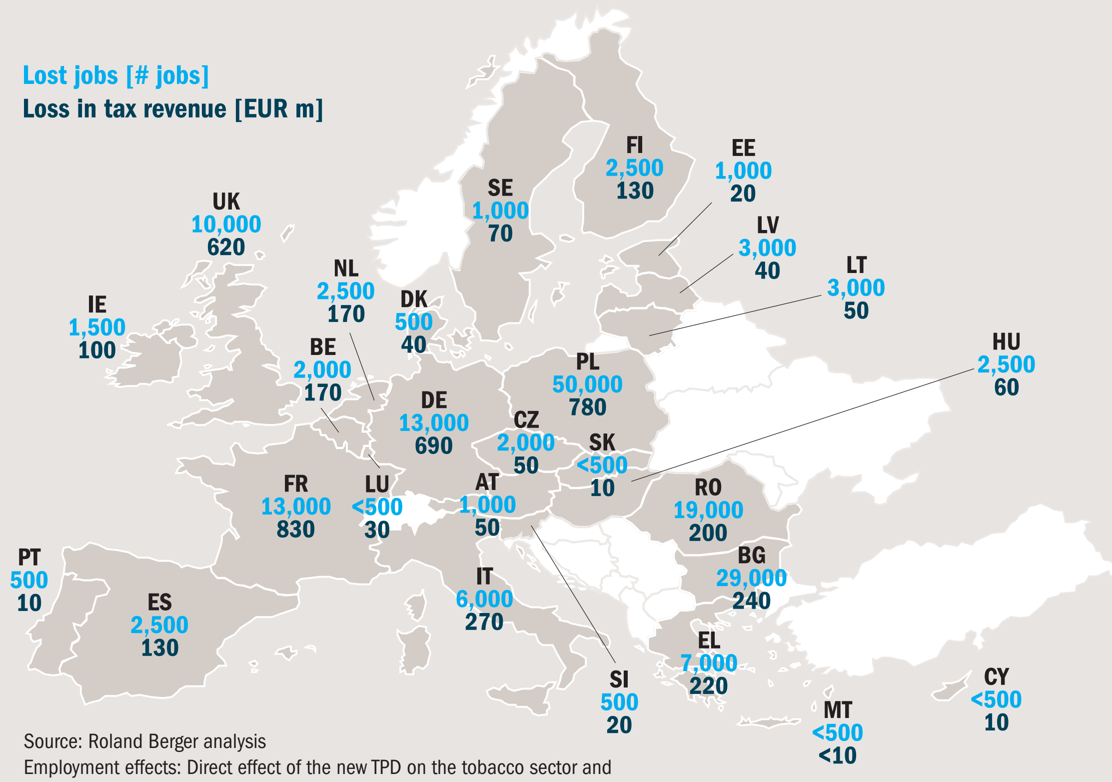
EU tobacco sector today	More than ...	... 600,000 jobs ... EUR 100 bn tax revenue	
POTENTIAL IMPACT	**Conservative Scenario A**	**Conservative Scenario B**	**Elevated Scenario**
Lost jobs [# jobs]	~70,000	~105,000	~175,000
Loss in tax revenue [EUR bn]	~2.2	~3.4	~5.0

Source: Roland Berger analysis

Potential impact:
> The black market is expected to grow by 25-55%
> Between 70,000 and 175,000 lost jobs
> Lost tax revenue of EUR 2.2-5.0 bn

While the whole EU27 will be affected, some countries will be particularly hard-hit

FIGURE 2: IMPACT ACROSS ALL EU27 COUNTRIES – ELEVATED SCENARIO



Source: Roland Berger analysis
Employment effects: Direct effect of the new TPD on the tobacco sector and indirect effect due to losses in tax revenue caused by the new TPD; values are rounded

The whole EU27 will be affected by the new TPD. However, some countries will be particularly hard-hit. Strong effects will, for instance, occur in countries with large tobacco sectors (in terms of production and consumption volumes). Examples of such countries are Germany, France and Poland. From our model, we estimate that the tobacco sector in Germany could lose up to 13,000 jobs in total. The tax loss of approximately EUR 690 m translates into an economy-wide job loss of 10,500. Direct job losses in the tobacco sector including suppliers and retailers amount to 2,500. A similar negative effect on employment is expected in France (up to 13,000 lost jobs in total).

Additionally, countries with strong markets for menthol cigarettes or slim cigarettes will be disproportionately affected by the new TPD. It is expected that Poland, currently accounting for almost 10% of the legal cigarette and fine-cut sales in the EU and with a menthol and slim share of about 30% of its legal cigarette sales, will lose up to 50,000 jobs in total. Its loss in tax revenue will be up to EUR 780 m.

Bulgaria, with a sizeable slim cigarette market of about 30% of legal cigarette sales as well as large production facilities, will lose up to 29,000 jobs. Bulgaria also faces a significant loss in tax revenue, which equals up to 2% of its total tax revenue in 2011.

Country examples:

> Up to 13,000 lost jobs in Germany and France, 50,000 in Poland

> Tax loss in Bulgaria of up to 2% of its total tax revenue in 2011

Our study approach applies standard economic modeling and simulates scenarios in the absence of empirical evidence

FIGURE 3: THE NEW TPD

Source: European Commission, Roland Berger

The elements of the new TPD as shown in figure 3 are taken into consideration in our economic model. The model is primarily based on parameters like consumer expenditure choices and company price-setting behavior. We differentiate between four tobacco market segments, namely premium cigarettes, below-premium cigarettes, fine-cut tobacco and the illicit cigarette market. Based on shifts in consumption among market segments due to the new TPD, we derive the changes in employment and tax revenue. Employment effects are calculated from the value added in each market segment throughout the tobacco value chain.

The model simulates three scenarios using different estimates across the following key dimensions:

1. Higher price sensitivity and shifts in demand towards lower-priced products due to product standardization
2. Substitution with illicit cigarettes due to the ban on menthol and slim cigarettes
3. Potential direct effects on consumption (i.e. decrease in consumption) resulting from the new TPD (note: consumption effects resulting from lower prices or substitution are indirect effects)

Since no empirical evidence exists that the new TPD will in fact decrease tobacco consumption, two of our three scenarios (Conservative Scenario A and Elevated Scenario) do not simulate any direct effects on consumption from the new TPD. Taking into account the indirect consumption effects from lower prices and illicit trade substitution, this means that overall consumption is expected to rise. These scenarios use conservative and moderate estimates, respectively, of the extent to which consumers will change their behavior and turn to cheaper products and the black market. Of course, actual consumer behavior changes in response to the new TPD may turn out to be less or much more pronounced than these estimates.

In a third scenario, which is a variation of the Conservative Scenario A, we assumed that overall consumption will not increase but stay flat. In this scenario (Conservative Scenario B), there is some direct effect on consumption from the measures under discussion; we assume that these effects offset the potential increase in consumption resulting from a likely fall in cigarette and fine-cut prices.

Additional considerations

There are potential additional negative effects on jobs and tax revenues which have not been included in the quantitative model, for example:

> A de facto **ban on e-cigarettes** may eliminate a market with a total value of EUR 400-500 m (according to Matrix 2012), corresponding to around 10,000 jobs

> The fall in prices and the shift to illicit trade will most likely **hit small retail shops harder** than others. For them, tobacco sales represent a high portion of their overall revenue; additionally, tobacco products generate shopper traffic

> Many **specialized technology suppliers**, e.g. for pack resealing technologies, slim cigarette filters, capsule insertion machinery, flavor applications for paper and packaging, will potentially **suffer disproportionately** from the new TPD

> Consumers living in countries at the EU's external borders and those who travel a lot may increasingly take advantage of (legal) **cross-border shopping** to buy those products that the new TPD will ban

> **EU-based factories** producing menthol and slim cigarettes both for domestic consumption and export may be **shut down** if they are no longer viable without the volumes to produce for sale in the EU

ATTRIBUTION/DISCLAIMER

Roland Berger Strategy Consultants prepared the study "The New Tobacco Products Directive – Potential Economic Impact" (including this summary) for, and at the request of, Philip Morris International Management S.A. All judgments and opinions expressed in the study are those of the authors.

Roland Berger Strategy Consultants have sought to ensure that factual statements included in the study are correct, based on specific assumptions and information available as of when it was prepared. Given the nature of this study, however, which deals with judging possible future developments based on a range of assumptions, estimates and projections, which in turn depend on many uncertain variables, Roland Berger Strategy Consultants cannot guarantee that the underlying assumptions and expectations are accurate, and in particular, we cannot provide any guarantees for the assumed future developments stated in the study. No protective effect shall arise for the benefit of third parties.

Roland Berger Strategy Consultants reserves the right to supplement this study or replace it with another study.

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