HM Treasury: Minimum Excise Tax

Consultation response from the ESRC Centre for Competition Policy

University of East Anglia, Norwich Research Park, Norwich NR4 7TJ

Date: 7 October 2014

Contributing authors:

- Franco Mariuzzo
- Morten Hviid
- Catherine Waddams

The document has been edited by Morten Hviid following discussions held in the Centre and it has the broad agreement of the group of contributors.

The support of the Economic and Social Research Council is gratefully acknowledged.

An ESRC funded Investment. The views and statements expressed are those of the authors and do not necessarily reflect the views of the ESRC.

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Consultation Response

Response by Franco Mariuzzo, Morten Hviid and Catherine Waddams

Before responding to the specific questions we add some comments on the discussion in the consultation documents to highlight areas where we are concerned about interpretation or where additional work appears warranted.

The policy aim

The tobacco policy is aimed, according to the consultation document, "to protect future revenues and reduce smoking rates." As a starting point one has to acknowledge that these two aims are generally in conflict with each other, for revenue requires smokers. Furthermore, the less price sensitive the smokers are, the better source this would be for revenue. There will be tax levels, where an increase in the tax can increase tax revenue while demand falls [number of people quitting], but as a general proposition, you cannot achieve both goals. The focus of the consultation report is primarily on the "down-trading" effect, which occurs when consumers substitute from expensive branded tobacco cigarettes to cheaper alternatives.

The effect of the policy on both revenue and quitting behaviour needs further analysis. In addition thoughts on the possible distributional effects of what is generally seen as a regressive tax would be welcome.

Down-trading

Graph 1.A is used as evidence for down-trading. The graph is based on market share trends and not on actual growth rates and hence may not actually demonstrate this, nor does it offer any insight into what may cause the development over time. The trends shown in Graph 1.A are likely to be the result of many combined effects including public health advertising campaigns and the smoking ban regulation. That the trends are the result of substitution between expensive and cheap cigarettes is not the only plausible explanation. The change could arise from the particular characteristics of those who quit if, for example, those who quit have higher income and are more likely to purchase expensive brands. If the competing effects (taxation, health awareness and regulation) cannot be disentangled it is difficult to make a claim on the effectiveness of the taxation. Furthermore, the trends in Graph 1.A could be the result of a reduction in illegal sales of tobacco induced by more effective deterrence arising from a combination of better enforcement and a smaller price differential between cheap and illegal cigarettes. Each of these alternative explanations is capable of explaining the trends in market shares shown in the graph and would lead to different policy conclusions. The third to last paragraph in Section 1.3 acknowledges these challenges: "Changes in market shares can be due to a number of factors, including wider economic conditions, changes in smoking prevalence, exchange rate dynamics and price changes". However, the document does not do enough to address these challenges. Below we argue that doing so is important.

Before we make these arguments, one effect mentioned in Gilmore et al (2013) is worth dwelling on. From 2005, multinational tobacco producers have expanded their portfolio in the ultra-low price cigarette segment. A natural question to ask is why it was profitable for the multinationals to extend their market portfolio in the lowest price segment? One explanation is that this fits well with a story of inter-temporal cross-subsidization. The ultra-cheap cigarette belongs to the segment of the market that targets price-sensitive poorer and younger smokers. By focusing on this segment, multinational producers could attempt to affect the quitting behaviour in the lower price interval, which embodies price sensitive smokers who are more prone to respond to taxation, and less to other policy interventions. For this strategy to be worthwhile, the price sensitivity has to be temporal. Smokers that belong to this segment may reduce their price sensitivity over time and switch to more expensive cigarettes marketed by the same producer or by a competitor. Young individuals and short term unemployed workers are good examples of groups which may only be able to afford ultra-cheap cigarettes on their current income, but who will be willing to switch once their income increases in the future. The producers may then forego profits in the short run but, as the lower prices ensure that more smokers continue being smokers and new ones are added, reap the benefit in the long run as these smokers eventually trade up to more expensive brands. A good understanding of firm behaviour and of the aforementioned induced selection mechanism is important to assess the effectiveness of the recommended tax modification.

Pass-through of tax increases

From the theory of taxation, we know that the pass-through of a tax depends on the nature of competition in the market and the functional form of demand and cost. Extensive coverage of pass-through can be found in a report by RBB Economics (2014). One question yet to be answered is how the recommended change in taxation would impact on the competition in the market. In a forthcoming paper Bennato et al. (forthcoming as a CCP working paper) compare the effectiveness on consumers and competition of differentiated *ad-valorem* taxation in an imperfectly competitive market where quality and cost heterogeneity are accounted for. One of their results is that a high incidence of taxation (proportion of the tax paid by the consumer) is commonly associated with high quality and expensive products, and so is the probability of over-shifting on the consumer (the consumer paying more that 100% of the tax). In a counterfactual analysis, where differentiated ad-valorem taxation is replaced by ex-ante revenue-equivalent homogeneous ad-valorem taxation, the authors find that the restoration of tax homogeneity lightens the burden for consumers purchasing cheaper products and worsens that of consumers buying expensive goods. This is an important result, for the recommended change in taxation modifies the ad-valorem taxation (though combined with unit taxation) in the opposite direction than our counterfactual: from homogeneous to differentiated. The pass-through is expected to impact the revenues, but the direction of the impact requires a study of the underlying demand elasticities and the competition in the market. We have left out the long run effect of the policy implementation, which usually follows entry and exit. The main message is that the implementation of the policy without consideration of the competition in the market may defeat the purpose of the taxation and not produce the expected level of revenues.

Graph 2.B in the consultation shows the effect of the linear relation between gross of taxation prices and net of taxation prices for the existing taxation and two possible changes: minimum excise tax (MET) and minimum consumption tax (MCT). Both alternative implementations combine unit and *ad-valorem* taxes. The main difference between the two is the proposed changes in the slope (the effect of the *ad-valorem* component of the taxation) and the intercept (the variation of the unit taxation). Both MCE and MCT will have implications for market competition. The cross-price competition between the tobacco producers is expected to be affected by the implementation of either of the two alternative tax policies and to spill over into the most expensive products, depending on the underlying level of substitutability between price varieties. Because the price of low cost cigarettes is increased, since the low cost and the high end branded cigarettes are likely to be substitutes, this induced competition effect will result in a higher price for the expensive branded cigarettes, leading to an indirect increase in the tax revenues [see also response to question 2 below].

To sum up, the tax policy intervention proposed may be the right tool to use, as it reduces the profitability of the inter-temporal cross-subsidization. However, the right combination of unit and ad-valorem taxation will be the one that is successful in limiting the distortion on competition, while incentivizing the ‘quit smoking’ behaviour. However, judging a priori what the optimal combination is without knowing what the market demand and cost primitives are, is difficult and would require more detailed research.

Minimum price vs minimum tax

It is interesting to contrast the proposed policy with a frequently discussed policy regarding minimum prices on alcohol. There are two key differences. With a minimum tax the extra surplus extracted from the consumer goes to the Treasury, while with the minimum price the extra surplus extracted from the consumer goes to the retailers. The flip side of this is that for minimum prices, the policy maker can focus solely on the effect of the policy in terms of improving health, while for minimum taxes the policy maker may consider the trade-off between revenue and health.

Answers to the specific questions

Q1) Do you agree that the growing popularity of the cheapest cigarette category presents a risk to the future effectiveness of tobacco policy?

We agree that the existence of ultra-low price cigarettes presents a challenge for the effectiveness of the tobacco policy. Superficially this is a case where the loss in revenue and the loss of incentive to quit go hand-in-hand. The precise effect of the policy will depend on the key drivers of both the substitution away from expensive cigarettes, the substitution to ultra-low price cigarettes and the motivation for the introduction of the ultra-low price cigarettes.

If the inter-temporal substitution [low price cigarettes for periods in life when income is limited – more expensive for periods when income is higher] story is credible, then the loss in revenue is temporary and the main effect of implementing the proposed tax is to raise the quit rate. This could in the long run have an adverse effect on tax revenue.

If substitution to low price is solely from illegal cigarettes, then the proposed policy will have little or even no effect.

If the low price cigarettes are introduced to guard against people quitting or not taking up smoking while income is low, then we will expect to see a very differential pass-through of any taxation at the low end. This is good for revenue but not if the aim is to reduce smoking.

The policy evaluation would benefit from a longitudinal study on the smoking behaviour of individuals with information on the types of cigarettes that they purchase: cheap versus expensive cigarettes. How did individuals respond to the implementation of taxation policy versus other policies? How did the implementation and expansion of the new ultra-cheap market segment affect the "quit smoke" tax rates for different price range purchasers? If such a study already exists in the literature or relevant evidence can be obtained from other countries, it should be added as additional relevant evidence.

Q2) Do you agree that a MET (or MCT) could provide a useful tool in helping to protect tobacco policy, by limiting growth at the lower end of the cigarette market?

We agree because they both would make the inter-temporal cross-subsidization more expensive for the smokers.

However, an eye on the distortion in competition as a result of cross-price effects should be maintained. In particular, the assumption/claim that competition would be unaffected does need to be revisited [see also general comment above]. The immediate effect of the intervention would be to increase the price of the cheapest cigarettes – it is hard to think of a case where this would not give rise to a rebalancing of the other prices in the portfolio of each of the brands, raising the prices on all other quality levels. The cigarette manufacturers may even decide to remove the ultra-cheap cigarette brands from the market, thereby reducing choice but possibly also reducing smoking. If so, how are we to evaluate the welfare effect of the intervention in this market?

Q3) What impacts would a structural minimum tax level, such as a MET, have on the illicit tobacco trade?

An obvious concern is that the growth in the ultra-cheap brands has mainly taken market share from the illicit market, in which case the main effect of the proposed policy would be to boost the illicit tobacco market. An increase in price for the ultra-cheap cigarettes will then boost revenues for the illegal market and may do so to the point where these exceed the expected cost of being convicted. While it may be possible to counter this through increased enforcement, this is costly and would reduce the net revenue raised by the reform. With this in mind, it may be important for the recommended policy to be implemented alongside a strengthening of the conviction rates.

Note that the key missing information is what caused the changes illustrated in graph 1.A. To evaluate the policy properly, this information is required.

Q4) What design features should a structural minimum tax level, such as a MET, have so that it can effectively influence pricing behaviour in the tobacco market?

It has to be large enough to reduce the inter-temporal cross-subsidization. To assess that, a better understanding of the pricing and product policy of the major cigarette manufacturers is required. The policy implementation can get ideas from the research question put forward by Myles (1996).

Q5) Are there any other structural reforms to the tobacco duty regime that could help support tobacco policy if down-trading trends continue?

If the down-trading towards ultra-cheap cigarettes continues, the alternative strategy is to try and hit the inter-temporal cross-subsidization. While it is impossible to fight the inter-temporal individual behaviour because of myopia, it is possible to reduce the benefit of cross-subsidization for the firms by ensuring that firms' market power is not sufficient to generate resources to be employed for cross-subsidization. Short of proposing structural changes to the tobacco market such as creating new competitors, for example by breaking up existing firms, this may be hard to achieve.

Q6) Do you think that additional duty measures or structural changes which impact the hand-rolling tobacco market would be required instead of, or alongside a MET?

If nothing is done about the hand-rolling tobacco market, then the most likely effect is that these will take the place of ultra-cheap cigarettes, potentially nullifying any effect of the proposed policy.

The fear is that one can expect a cascade effect. Multinationals may be tempted to get rid of the ultra-cheap segment in favour of control over the hand-rolling tobacco segment. The ultra-cheap cigarette segment would be replaced by the very ultra-cheap hand-rolling cigarette segment. The MET or MCT tax should be extended to this specific segment.

References

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