Annex 1 [handgeschrieben]

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Project proposal:
Intervention Analysis: the Effect of Plain Packaging for Tobacco Products on Smoking Behavior in Australia

A Quantitative Evaluation Applying Statistical Methods

submitted to

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B. Our Understanding of the Project

The Australian plain packaging initiative is unprecedented in its approach and scope. Therefore, the scientific evidence on **whether such a drastic measure *does* prevent individuals from smoking or encourage them to quit is difficult to assess.** Experiments regarding the appearance of the packaging suggest that standardized packages lead people to attribute less positive characteristics to the smoker and to the consumed good (i.e., cigarettes). Whether this perception will actually lead people to reduce cigarette consumption is, however, a blunt and so far unsubstantiated hypothesis. As an example of a comparable though weaker policy measure, mandatory pictorial warnings on cigarette packs have been used for a while in Canada and other countries;[6] but the empirical evidence on their causal effect on falling smoking rates is rather weak.[7] Whether the introduction of standardized (or "plain") packaging has any effect on smoking rates is a priori unclear. However, the measure comes at a very high cost to the tobacco industry and consumers. It is a severe restriction of consumers' freedom of choice . **Whether this policy measure is effective is therefore of major importance. Only the empirical analysis of real-world data can answer this question.**

The Australian Plain Packaging Act is a so-called "natural experiment" for empirical researchers. In contrast to laboratory experiments, natural experiments are typically not designed ot be analyzed using scientific methods. Legislators in fact mostly simply *assume* that the experiment will produce the desired results. However, every statutory change – often called (policy) **intervention** in the scientific literature – can in principle be evaluated using statistical methods, provided that adequate data are available. A thorough analysis of an intervention based on economic and/or statistical methods builds on:

(1) the right research questions,
(2) high-quality data, and
(3) an adequate research design.

A combination of economic analysis – taking behavioral reactions of individuals to policy interventions into account – and statistical intervention analysis is best suited to assess such a statutory change.

To evaluate the Australian experiment, it is necessary to examine the effects of the intervention based, most importantly, on original empirical research using real-world data.[8] Going forward, as other researchers may publish research using actual intervention data from Australia, such third party research should also be reviewed and evaluated.

The main goal of this project is to analyze whether a causal link between the Plain Packaing Act 2011 and smoking behavior (smoking prevalence, initiation, and intensity) in Australia can be established. To do so we apply statistical and economic methods to real-world data.

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6 Canada, Poland, and Thailand were the first countries to require that health warnings must cover a least half of the package's front and back. http://www.who.int/bulletin//volumes/87/8/09-069559/en/ (Accessed on May 07 2013)

7 See Gospodinov and Irvine (2004) for example.

8 For a more detailed discussion of regulatory intervention analyses and the various techniques involved, please see the presentation attached to this proposal as Annex 1.