## Disimproving the European Energy Label's value for consumers?

## Results of a consumer survey

## Background

- The European labelling scheme was introduced to counteract the rise in energy consumption by increasing consumer awareness on the real energy use
- Since its introduction in the mid-nineties it has no longer been adapted to the state of the art
- An update of the scale became necessary because many products have ended up in the highest energy-efficiency class after years of technological advancements and better know-how
- In Spring 2009, the Commission proposed the introduction of new "A" classes such as $\mathrm{A}-20 \%$, $\mathrm{A}-40 \%$ and $\mathrm{A}-60 \%$ on top of class A. However, the Parliament rejected in May 2009 the proposal to introduce these additional classes
- After months of negotiations, a compromise proposal from the Swedish Presidency finally reached an agreement with members of the European Parliament and representatives from the European Commission. That system should retain as a basis for classification using letters from A to $G$ but would expand the $A$ categories into a maximum of three tiers ( $A+A_{++}$and $A_{+++}$)
- Environmental and consumer groups criticize this proposal heavily but support the retention of a simple, closed A-G energy label, provided that a dynamic system would be implemented


The purpose of this paper is to provide empirical evidence on the effect of three discussed labelling schemes on consumer decisions regarding investigated choices for televisions

- We aim to demonstrate the difference in magnitude to the effect of all three schemes in realistic choice experiments in order to define how to best move forward from a policy and a marketing perspective
Research question: "Which label is more effective in making energy efficiency a relevant attribute in customer decisions regarding new televisions?

Methodology

- Discrete choice experiments (DCE) belong to the family of conjoint analysis methods and are widely used in marketing research
-This study is based on 3120 choice observations in Germany, based on 12 choices each of 260 respondents. These respondents were recruited by a commercial marketing research company (GfK). Sample 1 (label version "A-G closed" scale) includes 1080 choice tasks, sample 2 (label version "A+++" scale) is based on data for 1164 choice tasks. and sample 3 (label version "A-\%" scale) includes 876 choice tasks. Looking at the socio-demographic characteristics of the three samples, they are largely consistent with regard to gender, age, education and income.
Sample choice tasks for three samples:

- Relative attribute importances describe how much influence each attribute has on the purchase decision
- Whereas with the old label, the energy efficiency rating was almost equally important to price, the importance of the energy label sharply dropped with the introduction of both new label versions, and consumers relied much more heavily on price

Willingness-to-pay


The results can be interpreted as an indication of the average consumer's willingness to pay for a change from a lower to a higher level of an attribute: Differences in WTP between classes of the "A+++" scale (e.g. between an A+++ and an A++ efficiency class) and the "A-x\%" scale (e.g. between an A-60\% and an A-40\% efficiency class) are perceived as being much smaller than differences in WTP between classes of the "A-G closed" scheme (e.g. between an A and a B efficiency class).


- Share of preference can be defined as the percentage of respondents that would prefer one of the products
= The results show that respondents of Sample 1 ("A-G closed" scale) were about 4.5 or 2.3. times more likely to choose the TV with the highest energy efficiency class in combination with the highest price than respondents from Sample 2 or Sample 3
- Implications additional categories (A+, A++, A+++ or A-20\%, A-40\%, A-60\%) weakens the effect of the label, resulting in lower awareness about energy efficiency as an important attribute
- Our results suggest that the confusion introduced by the new label categories makes consumers switch away from energy efficient products and shop for the cheapest TV instead.
- The results of the study suggest sticking to the established, straightforward and easily understood format of the A to G label
- By reaping the benefit of this higher latent willingness-to-pay, manufacturers might get a higher return on their investment in R\&D with the "A-G closed" scheme


